Appendix A

NOP/Initial Study

NOTICE OF PREPARATION OF DRAFT ENVIRONMENTAL IMPACT REPORT AND NOTICE OF PUBLIC SCOPING MEETING REGARDING PROPOSED LOMBARDI SUBDIVISION PROJECT

TO:	Responsible Agencies, Trustee Agencies, other interested agencies, and members of the public
FROM:	City of Porterville, Community Development Department
SUBJECT:	Notice of Preparation of a Draft Environmental Impact Report (EIR)
DATE:	July 10, 2021 to August 9, 2021

The City of Porterville (City) will be the Lead Agency and will have an Environmental Impact Report (EIR) prepared for the Annexation, General Plan Amendment, Rezone, and Vesting Tentative Subdivision Map described below. The City has hired a consultant to prepare the EIR for the Project in accordance with the California Environmental Quality Act (CEQA). The City will consider the EIR and its actions on the Project at a later date to be determined and announced.

Your participation as a responsible/trustee agency/cooperating agency or interested person is requested in the preparation and review of the Draft EIR. We are seeking your views at this time regarding the scope and content of the environmental information that is relevant to you or your agency's statutory responsibilities.

The Project may require actions or approvals by other agencies. Please inform us of any applicable permit(s) and environmental requirements of your agency with respect to the Project. Your agency may need to use the EIR when considering your permit or other approval for the Project.

Project Title: Lombardi Subdivision

Project Applicant: San Joaquin Valley Homes
5607 Avenida de los Robles
Visalia, California 93291

Project Location: The Project site is located between N. Westwood Street and N. Lombardi Street, bounded to the south by W. Westfield Avenue, in Porterville.

Project Description: The Project consists of an Annexation, General Plan Amendment, Rezone, and a Vesting Tentative Subdivision Map to allow for the construction of up to 233 single-family residential units on 56 acres and the annexation of the Summit Charter Academy, Lombardi Campus, totaling approximately 69.65 acres.

Potential Environmental Effects: Potentially significant effects may result to various environmental categories including, but not limited to Air Quality, Greenhouse Gas Emissions, Energy, and Transportation.

The associated maps are available for public review via e-mail (see contact information below).

Document Availability and Public Review Timeline: Due to the time limits mandated by State law, your response to the NOP must be sent *no later than 30 days* after receipt of this notice. The review period for the NOP will be from July 10, 2021 to August 9, 2021. A copy of the NOP can be requested at City Hall, 291 N Main St. or be obtained through the City's website or by email via the email address below.

Written Comments: Comments in response to the Notice of Preparation will be accepted through 5:00 P.M., August 9, 2021. Please send your written comments to:

Jason Ridenour
Community Development Director
291 N. Main Street.
Porterville CA, 93257
Phone: (559) 782-7460
Email: planning@ci.porterville.ca.us

All written comments should reference the Annexation, General Plan Amendment, Rezone and the Vesting Tentative Subdivision Map, Lombardi Subdivision Environmental Impact Report. Please include your name, address, and phone number, and/or email so that we may contact you for clarification, if necessary.

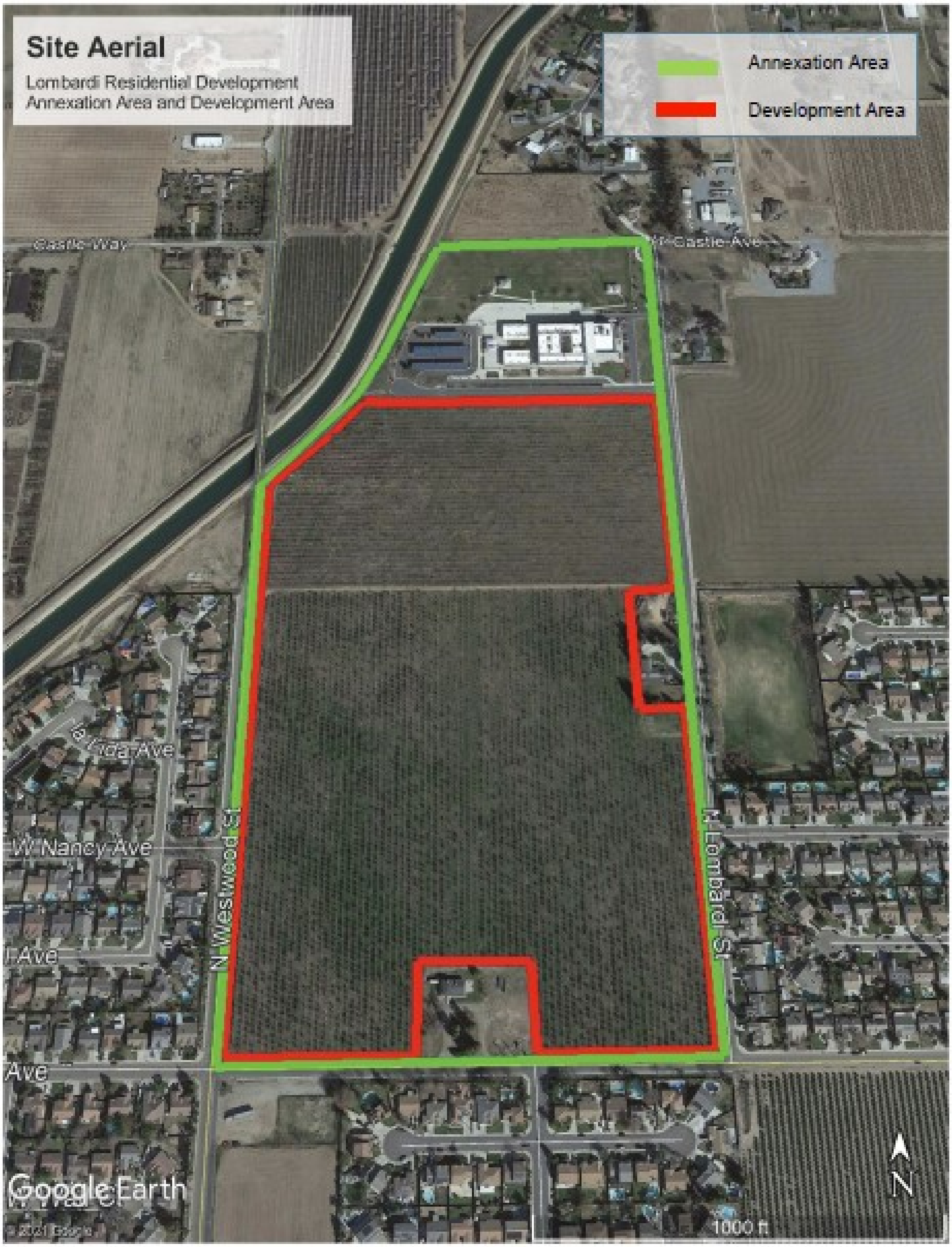
Persons with questions or requests for information may call the Planning Department at (559) 782-7460 or by email at planning@ci.porterville.ca.us

Public Scoping Meeting: The CEQA process encourages comments and questions from the public throughout the planning process. Pursuant to CEQA Guidelines Section 15083, a Public Scoping Meeting will be held to solicit comments on the scope and content of the EIR. The meeting will be held in person at the Porterville City Hall Council Chambers and online through Zoom. The meeting information is listed below:

Date: Tuesday, July 27, 2021
Time: 5:30 P.M. to 6:30 P.M.
Location: Porterville City Hall, Council Chambers at 291 N. Main St. Porterville, CA 93257

Zoom Link:
https://us02web.zoom.us/j/85241451080?pwd=UGZFdDdRazFyMmhrd1BDU0MrNkVDQT09
Or by Phone: (669) 900-9128 or (253) 215-8782
Webinar ID: 852 4145 1080
Passcode: 345026
Find your local number: https://us02web.zoom.us/u/kbdE55So59

Newspaper Notice of Preparation Published: The Porterville Recorder, July 10, 2021.


Site Aerial
Lombardi Residential Development
Annexation Area and Development Area
Annexation Area
Development Area
Castle Way
W Castle Ave
N Westwood St
N Lombardi St
W Nancy Ave
Ave
Ave
Google Earth
© 2021 Google
1000 ft
N

Agencies:

Department of Transportation (Caltrans)
District 6 Office
1352 W. Olive Ave
P.O. BOX 12616
Fresno, CA 93778-2616

Bureau of Reclamation
Michael P. Jackson, P.E., Area Manager
South-Central California Area Office
1243 N Street
Fresno CA 93727

San Joaquin Valley Air Pollution Control District
Southern Region
34946 Flyover Ct
Bakersfield, CA 93308

Department of Water Resources
P.O. Box 942836
Sacramento, CA 94236-0001

Department of Fish and Wildlife
P.O. Box 944209
Sacramento, CA 94244-2090

Department of Conservation
801 K Street, MS 14-15
Sacramento, CA 95814

Lombardi Development Project Initial Study

Prepared for:

City of Porterville
291 N. Main Street
Porterville, CA 93257
(559) 782-7460
Contact: Jason Ridenour

Prepared by:

Crawford & Bowen Planning, Inc.
113 N. Church Street, Suite 302
Visalia, CA 93291
(559) 840-4414
Contact: Emily Bowen, LEED AP

July 2021

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PROJECT INFORMATION

This document is the Initial Study on the potential environmental effects of the City of Porterville's (City) Lombardi Development Project (Project). The City of Porterville will act as the Lead Agency for this project pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines. Copies of all materials referenced in this report are available for review in the project file during regular business hours at 291 N. Main Street, Porterville, CA 93257.

Project title

Lombardi Development Project

Lead agency name and address

City of Porterville
291 N. Main Street
Porterville, CA 93257

Contact person and phone number

Jason Ridenour, Interim Community Development Director
City of Porterville (559) 782-7460

Project location

The City of Porterville is located in Tulare County in the southern part of the San Joaquin Valley. The 56-acre Project site is located in northwest Porterville, bounded to the west by N. Westwood Street, to the south by W. Westfield Avenue, and to the east by N. Lombardi Street. Residential subdivisions lie to the west, east, and south. Summit Charter Academy, Lombardi Campus lies directly north, with a diagonal of the Friant-Kern Canal along the northwest corner. See Figure 1. Porterville is bisected north-south by State Route (SR) 65 and SR 190 runs east-west in the southern portion of the City.

Figure 1 – Location

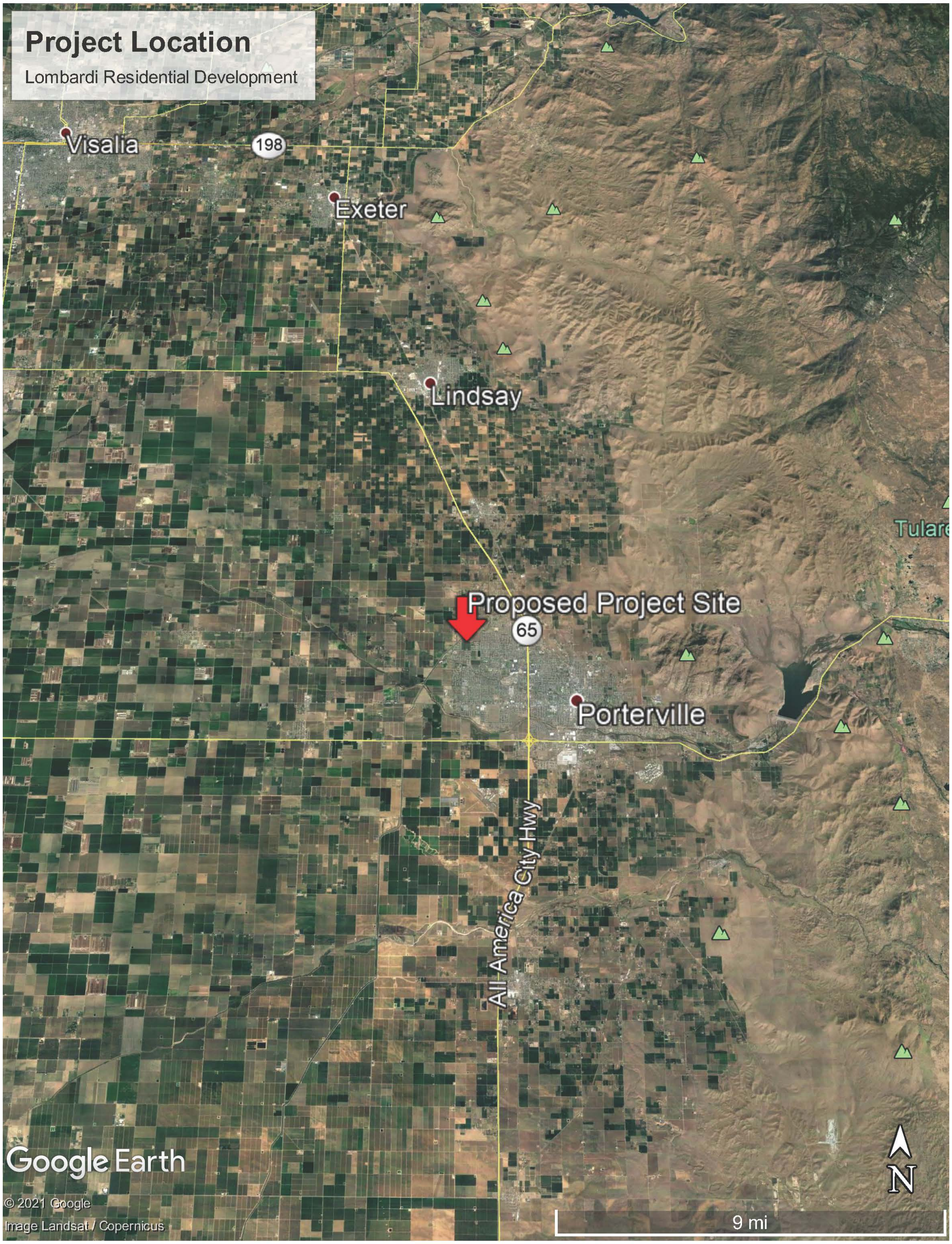
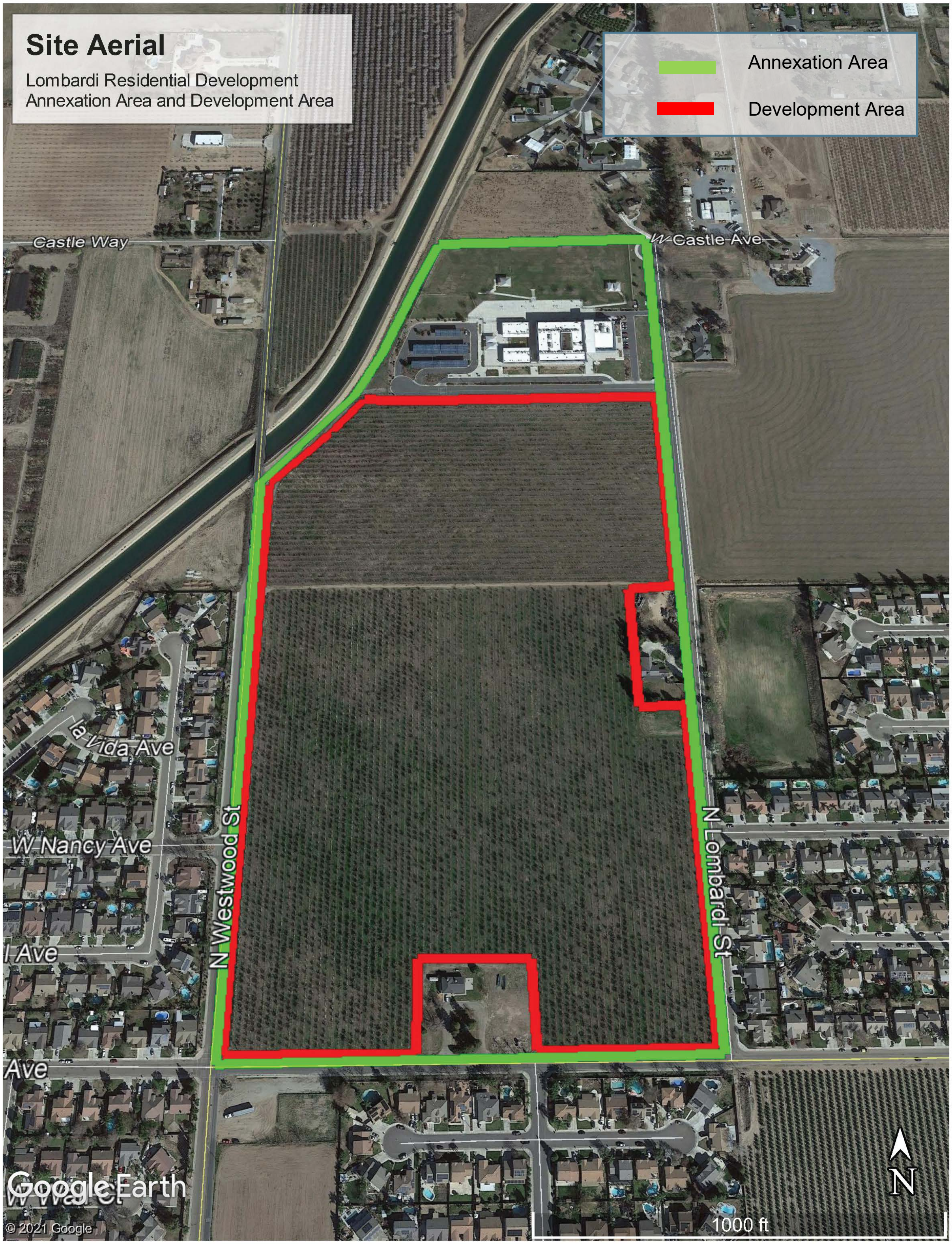


Figure 2 – Site Aerial



Project sponsor's name/address

San Joaquin Valley Homes
5607 Ave de Las Robles
Visalia, CA 93291

General plan designation

Low Density Residential, Medium Density Residential, Parks and Recreation, and Neighborhood Commercial.

Zoning

RS-1

Project Description

The proposed Project consists of an Annexation, General Plan Amendment, Rezone and a Tentative Subdivision Map to allow for the construction of up to 233 single-family residential units. Parcels to be annexed include 245-010-087, -092, -037 and -041 for a total of approximately 69.65 acres. The 56-acre subdivision would be developed on Assessor Parcel Number 245-010-087. The Project site is located between N. Westwood Street and N. Lombardi Street, bounded tothe south by W. Westfield Avenue.

Project Components

- Construction of 233 single family residential units.
- Development of a 152,217 square foot park in the center of the residential development.
- Construction of local roads with five points of ingress/egress; one on the southern boundary of the property off W. Westfield Avenue, one on the western boundary off N. Westwood Street, one on the northern boundary off an unnamed street adjacent to the Summit Charter Academy, Lombardi Campus, and two on the eastern boundary off N. Lombardi Street.
- Improvement of all streets in or adjacent to the subdivision, in accordance with the approved improvements plan, per Section 407.02(h) of the Porterville Development Ordinance.
- Development of a subdivision tree and landscaping design that will be approved by the City. At least one tree will be planted on each residential lot and street trees will be planted at 35 feet on center along all parkways within and/or bordering the subdivision.
- Development of a Landscape plan, in accordance with Chapter 303 of the Porterville Development Ordinance.

- Change the zone on APN 245-010-087 from the prezoned RS-1 to RS-2 (Very Low Density Residential to Low Density Residential).
- Annexation of APN 245-010-087 (56.32 acres), -041 (1.00 acre), -037 (1.06 acres) and -092 (11.27 acres). Summit Charter Academy, Lombardi Campus, is on APN 245-010-087, and rural houses are on -037 and -041. The only physical changes proposed with this Project will occur on APN 245-010-087.
- Cancellation of Williamson Act contract Number 05126 and disestablishment of Ag Preserve 2034

Project Operations

Upon Annexation, General Plan Amendment to change the land use designation, and Rezone, the proposed Project would be in be within City Limits and compliant with land use requirements. Water, sewage disposal and refuse collection services will be provided by the City of Portville and the applicant will be required to tie into the City's existing facilities. The proposed Project would require gas, telephone, cable, and electrical improvements. Natural gas would be provided by The Gas Company; telephone services would be provided by AT&T; electric power would be provided by Southern California Edison Company; and cable television would be provided by Charter Communication. The extent of work required for utilities and gas would be determined during final project design.

Surrounding Land Uses/Existing Conditions

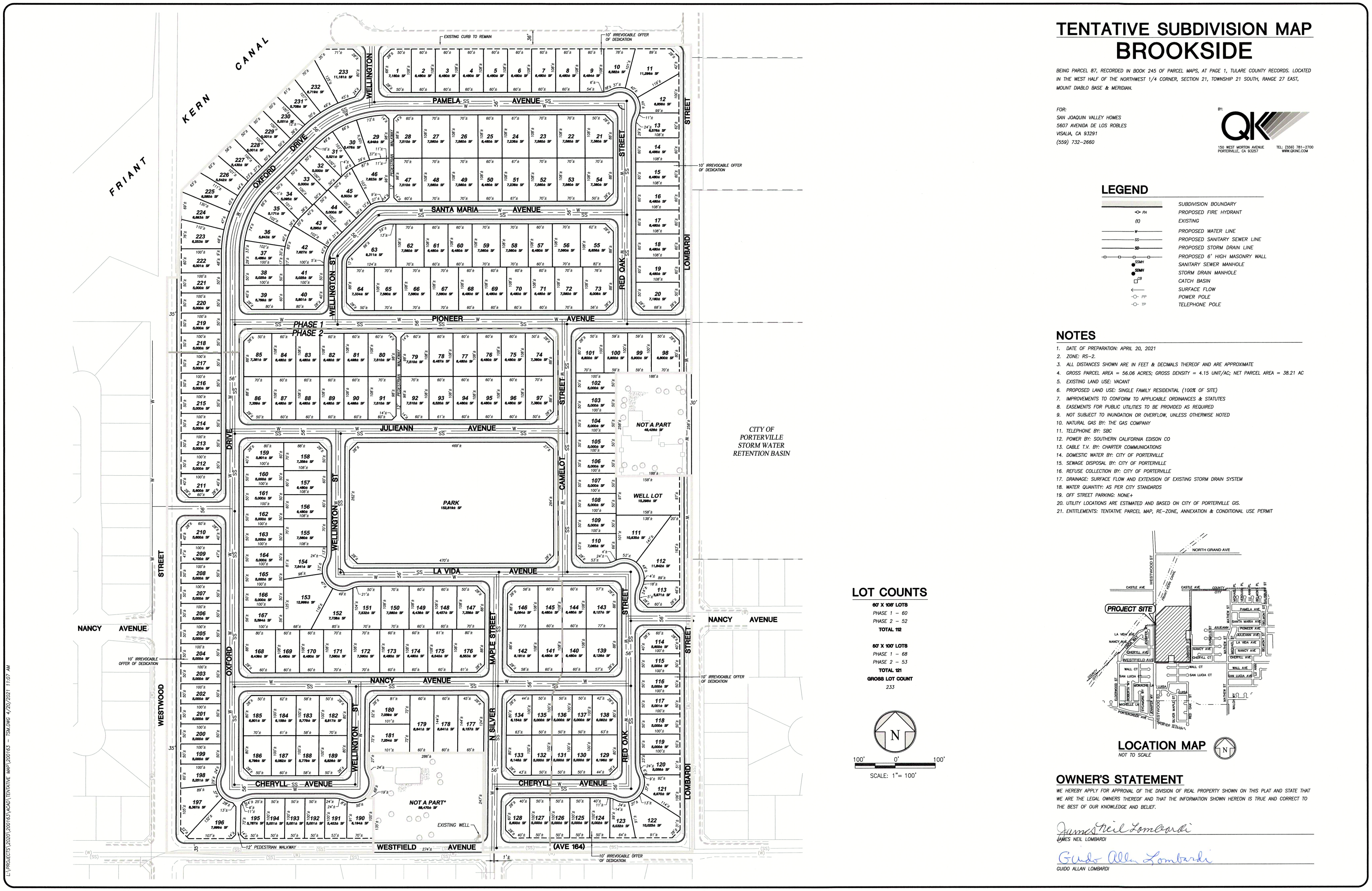
The proposed Project site is currently in use with primarily agricultural activities. Two rural residences associated with the agricultural activities reside in the Project area; one along W. Westfield Avenue and one along N. Lombardi Street. Both residences are adjacent to vacant areas utilized for storage and staging heavy equipment.

Lands directly surrounding the proposed Project are described as follows:

- North: Summit Charter Academy, Lombardi Campus and a portion of the Friant-Kern Canal, identified as Public Land and Park Land.
- South: Residential development and vacant land, identified as Low Density and Medium Density Residential.
- East: Residential development, vacant land and agriculture, identified as Very Low and Low Density Residential.
- West: Residential development, identified as Low Density Residential.

The area lies within a Residential Neighborhood (RN) District, as per the City of Porterville Final Zoning Map (effective January 19, 2012).

Figure 3 – Site Plan



Other Public Agencies Involved

- Approval of Williamson Act Cancellation by Tulare County Board of Supervisors.
- Annexation approval by Tulare County LAFCo.
- Approval of a Stormwater Pollution Prevention Plan by the Central Valley Regional Water Quality Control Board.
- Dust Control Plan Approval letter from the San Joaquin Valley Air Pollution Control District.
- Compliance with other federal, state and local requirements.

Tribal Consultation

The City of Porterville has not received any project-specific requests from any Tribes in the geographic area with which it is traditionally and culturally affiliated with or otherwise to be notified about projects in the City of Porterville.

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.

☐ Aesthetics	☐ Agriculture Resources and Forest Resources	☒ Air Quality
☐ Biological Resources	☐ Cultural Resources	☒ Energy
☐ Geology / Soils	☒ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☐ Hydrology / Water Quality	☐ Land Use / Planning	☐ Mineral Resources
☐ Noise	☐ Population / Housing	☐ Public Services
☐ Recreation	☒ Transportation	☐ Tribal Cultural Resources
☐ Utilities / Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

DETERMINATION

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.

Jason Ridenour	7/2/2021 Date

Community Development Director

City of Porterville

ENVIRONMENTAL CHECKLIST

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

ENVIRONMENTAL SETTING

The proposed Project site is located on the San Joaquin Valley floor in the southern portion of the City of Porterville, California. Summit Charter Academy, Lombardi Campus lies to the north of the site, with a portion of the Friant-Kern Canal running diagonally along the northwest corner. The site is bounded to the east by N. Lombardi Street, with residential development, vacant land and agriculture beyond the roadway. The site is bounded to the south by W. Westfield Avenue, with residential development and vacant land beyond the roadway. The site is bounded by N. Westwood Street to the west, with residential development beyond the roadway in that direction. The aesthetic features of the existing visual environment in the proposed Project area are residential and agricultural. There are no scenic resources or scenic vistas in the area. State Routes (SR) in the proposed Project vicinity include 99, 65, 190, 137.

Regulatory Setting

Federal

Aesthetic resources are protected by several federal regulations, none of which are relevant to the proposed Project because it will not be located on lands administered by a federal agency, and the proposed Project applicant is not requesting federal funding or a federal permit.

State

Nighttime Sky – Title 24 Outdoor Lighting Standards

The Energy Commission adopted changes to Title 24, Parts 1 and 6, Building Energy Efficiency Standards (Standards), on April 23, 2008. These new Standards became effective on January 1, 2010. Requirements for outdoor lighting remained consistent with past Standards and the requirements vary according to which "Lighting Zone" the equipment is in. The Standards contain lighting power allowances for newly installed equipment and specific alterations that are dependent on which Lighting Zone the Project is located in. Existing outdoor lighting systems are not required to meet these lighting power allowances. However, alterations that increase the connected load, or replace more than 50% of the existing luminaires, for each outdoor lighting application that is regulated by the Standards, must meet the lighting power allowances for newly installed equipment.

An important part of the Standards is to base the lighting power that is allowed on how bright the surrounding conditions are. The eyes adapt to darker surrounding conditions, and less light is needed to properly see; when the surrounding conditions get brighter, more light is needed to see. The least power is allowed in Lighting Zone 1 and increasingly more power is allowed in Lighting Zones 2, 3, and 4.

The Energy Commission defines the boundaries of Lighting Zones based on U.S. Census Bureau boundaries for urban and rural areas as well as the legal boundaries of wilderness and park areas. By default, government designated parks, recreation areas and wildlife preserves are Lighting Zone 1; rural areas are Lighting Zone 2; and urban areas are Lighting Zone 3. Lighting Zone 4 is a special use district that may be adopted by a local government.

California Scenic Highway Program

The Scenic Highway Program allows county and city governments to apply to the California Department of Transportation (Caltrans) to establish a scenic corridor protection program which was created by the Legislature in 1963. Its purpose is to protect and enhance the natural scenic beauty of California highways and adjacent corridors, through special conservation treatment. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Sections 260 through 263. While not Designated State Scenic Highways, two Eligible State Scenic Highways occur in Tulare County, SR 198 and SR 190.

Local

Porterville General Plan Policies

- LU-I-14: Allow residential developments to employ creative site design, landscaping, and architectural quality that blend with the characteristics of each location and its surroundings and offer superior design solutions.

- LU-I-18: Protect existing residential neighborhoods from the encroachment of incompatible activities and land uses, and environmental hazards.

- L-I-20: Establish standards for pedestrian-oriented design in neighborhood centers. Pedestrian orientation design standards may include, but would not be limited to:

  Limitations on maximum block length

  Minimum sidewalk width

  Required streetscape improvements, including street trees

  Building height and articulation

  Building setbacks

  Location of entries

  Parking location and required landscaping

- LU-I-25: Establish buffering requirements and performance standards intended to minimize harmful effects of excessive noise, light, glare, and other adverse environmental impacts.

RESPONSES

a. <u>Have a substantial adverse effect on a scenic vista?</u>

Less than Significant Impact. The proposed Project includes the construction of up to 233 single-family residences and the improvements associated with a new residential development, including lighting and site landscaping. The structures will conform to design standards set forth by the City's General Plan and Zoning Ordinance. The proposed Project site is located in an area that is substantially surrounded by urban uses and will not result in a use that is visually incompatible with the surrounding area.

The City of Porterville General Plan does not identify any scenic vistas within the proposed Project area. A scenic vista is generally considered a view of an area that has remarkable scenery or a resource that is indigenous to the area. The Project is located in an area of minimal topographic relief, and views of the site are easily obscured by buildings, other structures and trees. Neither the Project area nor any surrounding land use contains features typically associated with scenic vistas (e.g., ridgelines, peaks, overlooks).

Construction activities will be visible from the adjacent roadsides; however, the construction activities will be temporary in nature and will not affect a scenic vista. The impact will be ***less than significant***.

Mitigation Measures: None are required.

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

Less than Significant Impact. There are no state designated scenic highways within the immediate proximity to the Project site. California Department of Transportation Scenic Highway Mapping System identifies SR 190 east of SR 65 as an Eligible State Scenic Highway. This is the closest highway, located approximately 3.1 miles southeast of the Project site; however, the Project site is both physically and visually separated from SR 190 by intervening land uses. In addition, no scenic highways or roadways are listed within the Project area in the City of Porterville's General Plan or Tulare County's General Plan. Based on the National Register of Historic Places (NRHP) and the City's General Plan, no historic buildings exist on the Project site. The proposed Project would not cause damage to rock outcroppings or historic buildings within a State scenic highway corridor. Any impacts would be considered ***less than significant***.

Mitigation Measures: None are required.

<u>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</u>

vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and regulations governing scenic quality?

Less than Significant Impact. Site construction will include residences, internal access roads, lighting and site landscaping. The residences will be single-family and will conform to design standards set forth by the City's General Plan and Zoning Ordinance, upon Annexation and pending approval. The proposed Project site is located in an area that is substantially surrounded by urban uses, including residential and agricultural, and as such, will not result in a use that is visually incompatible with the surrounding area. The proposed Project will not substantially degrade the existing visual character or quality of the area or its surroundings.

The impact will be ***less than significant***.

Mitigation Measures: None are required.

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

Less Than Significant Impact. Nighttime lighting is necessary to provide and maintain safe, secure, and attractive environments; however, these lights have the potential to produce spillover light and glare and waste energy, and if designed incorrectly, could be considered unattractive. Light that falls beyond the intended area is referred to as "light trespass." Types of light trespass include spillover light and glare. Minimizing all these forms of obtrusive light is an important environmental consideration. A less obtrusive and well-designed energy efficient fixture would face downward, emit the correct intensity of light for the use, and incorporate energy timers.

Spillover light is light emitted by a lighting installation that falls outside the boundaries of the property on which the installation is sited. Spillover light can adversely affect light-sensitive uses, such as residential neighborhoods at nighttime. Because light dissipates as it travels from the source, the intensity of a light fixture is often increased at the source to compensate for the dissipated light. This can further increase the amount of light that illuminates adjacent uses. Spillover light can be minimized by using only the level of light necessary, and by using cutoff type fixtures or shielded light fixtures, or a combination of fixture types.

Glare results when a light source directly in the field of vision is brighter than the eye can comfortably accept. Squinting or turning away from a light source is an indication of glare. The presence of a bright light in an otherwise dark setting may be distracting or annoying, referred to as discomfort glare, or it may diminish the ability to see other objects in the darkened environment, referred to as disability glare.

Glare can be reduced by design features that block direct line of sight to the light source and that direct light downward, with little or no light emitted at high (near horizontal) angles, since this light would travel long distances. Cutoff-type light fixtures minimize glare because they emit relatively low-intensity light at these angles.

Current sources of light in the Project area include street lights, light from the Summit Charter Academy parking area, the vehicles traveling along adjacent roadways, and light from nearby residences. The Project would necessitate street lighting. Such lighting would be subject to the requirements of the Porterville Development Ordinance 300.07, which ensures that outdoor lighting does not produce obtrusive glare onto the public right-of-way or adjoining properties. Accordingly, the Project would not create substantial new sources of light or glare. Potential impacts are ***less than significant***.

Mitigation Measures: None are required.

II. AGRICULTURE AND FOREST RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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?	☐	☐	☒	☐
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in 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))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The proposed Project site is located in an area just outside of the City of Porterville planning area. Approximately two-thirds of the property (the northern portion) is considered Farmland of Statewide Importance by the State Farmland Mapping and Monitoring Program, while approximately one-third (the southern portion) is considered Prime Farmland. A small south-north rectangle on the eastern boundary is considered Urban and Built-Up Land. The land is enrolled in Williamson Act contracts.

Regulatory Setting

Federal

Federal regulations for agriculture and forest resources are not relevant to the proposed Project because it is not a federal undertaking (the Project site is not located on lands administered by a federal agency, and the Project applicant is not requesting federal funding or a federal permit).

State

State regulations for agriculture and forest resources relevant to the proposed Project include the Williamson Act (1965), as the Project site is currently enrolled in a Williamson Act contract and will require cancellation upon Project development.

Local

Porterville General Plan Policies

Porterville General Plan Policies for agriculture and forest resources are not relevant to the proposed Project because the Project site is not currently within City Limits.

RESPONSES

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?

Less Than Significant Impact. The Project site is located outside the City of Porterville limits but within the Urban Development Boundary. The site is currently zoned RS-1 and designated as Low Density Residential, Medium Density Residential, Parks & Recreation and Neighborhood Commercial. The proposed Project consists of an Annexation, General Plan Amendment, Rezone and a Tentative Subdivision Map to allow for the construction of up to 233 single-family residential units on approximately 56 acres of land. The site is designated as primarily Farmland of Statewide Importance and Prime Farmland, with a small south-north rectangle on the eastern boundary considered Urban and

Built-Up Land by the State Farmland Mapping and Monitoring Program. The site has been planned for development in the Porterville 2030 General Plan and as such, agricultural conversion impacts were analyzed in the Porterville 2030 General Plan EIR (SCH 2006011033). Agricultural conversion imacts were found to be significant and unavoidable and a Statement of Overriding Conditions was adopted by Resolution. Since site agricultural conversion impacts were previously analyzed, there would be no new impacts as a result of Project implementation. Impacts are ***less than significant***.

Mitigation Measures: None are required.

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

Less Than Significant Impact. The site is under Williamson Act contract number 5126 and agricultural preserve number 2034. As part of the proposed Project, the Williamson Act contract will be cancelled, and the Project developer will pay the 12.5% cancellation fees. As such, the proposed Project would not conflict with existing Williamson Act contracts and the impact is considered ***less than significant.***

Mitigation Measures: None are required.

c. <u>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))?</u>

No Impact. The Project is not zoned for forestland and does not propose any zone changes related to forest or timberland. There is ***no impact***.

Mitigation Measures: None are required.

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

No Impact. No conversion of forestland, as defined under Public Resource Code or General Code, as referenced above, would occur as a result of the Project. There is ***no impact***.

Mitigation Measures: None are required.

e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Less Than Significant Impact. Agricultural conversion impacts in the City's projected development areas were assessed in the Porterville 2030 General Plan EIR. Impacts were considered significant and unavoidable and a Statement of Overriding Considerations was adopted. Surrounding land uses include residential and agricultural, and the Project is not expected to involve land use changes to these surrounding areas. The proposed Project does not have the potential to result in the conversion of forestland uses to non-forestland. Any impacts are considered ***less than significant.***

Mitigation Measures: None are required.

III. AIR QUALITY

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

ENVIRONMENTAL SETTING

The climate of the San Joaquin Valley is characterized by long, hot summers and stagnant, foggy, winters. Precipitation is low and temperature inversions are common. These characteristics are conducive to the formation and retention of air pollutants and are in part influenced by the surrounding mountains which intercept precipitation and act as a barrier to the passage of cold air and air pollutants.

The proposed Project lies within the San Joaquin Valley Air Basin, which is managed by the San Joaquin Valley Air Pollution Control District (SJVAPCD or Air District). National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for the following criteria pollutants: carbon monoxide (CO), ozone (O_3), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), particulate matter (PM_{10} and $PM_{2.5}$), and lead (Pb). The CAAQS also set standards for sulfates, hydrogen sulfide, and visibility.

Air quality plans or attainment plans are used to bring the applicable air basin into attainment with all state and federal ambient air quality standards designed to protect the health and safety of residents within that air basin. Areas are classified under the Federal Clean Air Act as either "attainment", "non-attainment", or "extreme non-attainment" areas for each criteria pollutant based on whether the NAAQS have been achieved or not. Attainment relative to the State standards is determined by the California Air Resources Board (CARB). The San Joaquin Valley is designated as a State and Federal extreme non-attainment area for O_3, a State and Federal non-attainment area for $PM_{2.5}$, a State non-attainment area for PM_{10}, and Federal and State attainment area for CO, SO_2, NO_2, and Pb.[1]

Regulatory Setting

Federal

Clean Air Act

The federal Clean Air Act of 1970 (as amended in 1990) required the U.S. Environmental Protection Agency (EPA) to develop standards for pollutants considered harmful to public health or the environment. Two types of National Ambient Air Quality Standards (NAAQS) were established. Primary standards protect public health, while secondary standards protect public welfare, by including protection against decreased visibility, and damage to animals, crops, landscaping and vegetation, or buildings. NAAQS have been established for six "criteria" pollutants: carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), ozone (O_3), particulate matter (PM_{10} and $PM_{2.5}$), and lead (Pb).

State

California Air Resources Board

The California Air Resources Board (CARB) is the state agency responsible for implementing the federal and state Clean Air Acts. CARB has established California Ambient Air Quality Standards (CAAQS), which include all criteria pollutants established by the NAAQS, but with additional regulations for Visibility Reducing Particles, sulfates, hydrogen Sulfide (H_2S), and vinyl chloride.

The proposed Project is located within the San Joaquin Valley Air Basin, which includes San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and parts of Kern counties and is managed by the SJVAPCD.

Air basins are classified as attainment, nonattainment, or unclassified. Attainment is achieved when monitored ambient air quality data is in compliance with the standards for a specified pollutant. Non-compliance with an established standard will result in a nonattainment designation and an

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[1] San Joaquin Valley Air Pollution Control District. Ambient Air Quality Standards & Valley Attainment Status. http://www.valleyair.org/aqinfo/attainment.htm. Accessed April 2021.

unclassified designation indicates insufficient data is available to determine compliance for that pollutant.

Standards and attainment status for listed pollutants in the Air District can be found in Table 1. Note that both state and federal standards are presented.

Table 1
Standards and Attainment Status for Listed Pollutants in the Air District[2]

	Federal Standard	California Standard
Ozone	0.075 ppm (8-hr avg)	0.07 ppm (8-hr avg) 0.09 ppm (1-hr avg)
Carbon Monoxide	9.0 ppm (8-hr avg) 35.0 ppm (1-hr avg)	9.0 ppm (8-hr avg) 20.0 ppm (1-hr avg)
Nitrogen Dioxide	0.053 ppm (annual avg)	0.30 ppm (annual avg) 0.18 ppm (1-hr avg)
Sulfur Dioxide	0.03 ppm (annual avg) 0.14 ppm (24-hr avg) 0.5 ppm (3-hr avg)	0.04 ppm (24-hr avg) 0.25 ppm (1hr avg)
Lead	1.5 µg/m3 (calendar quarter) 0.15 µg/m3 (rolling 3-month avg)	1.5 µg/m3 (30-day avg)
Particulate Matter (PM10)	150 µg/m3 (24-hr avg)	20 µg/m3 (annual avg) 50 µg/m3 (24-hr avg)
Particulate Matter (PM2.5)	15 µg/m3 (annual avg)	35 µg/m3 (24-hr avg) 12 µg/m3 (annual avg)

µg/m3 = micrograms per cubic meter

Additional State regulations include:

CARB Portable Equipment Registration Program – This program was designed to allow owners and operators of portable engines and other common construction or farming equipment to register their equipment under a statewide program so they may operate it statewide without the need to obtain a permit from the local air district.

U.S. EPA/CARB Off-Road Mobile Sources Emission Reduction Program – The California Clean Air Act (CCAA) requires CARB to achieve a maximum degree of emissions reductions from off-road mobile sources to attain State Ambient Air Quality Standards (SAAQS); off- road mobile sources include most construction equipment. Tier 1 standards for large compression-ignition engines used in off-road mobile sources went into effect in California in 1996. These standards, along with ongoing rulemaking, address emissions of nitrogen oxides (NOX) and toxic particulate matter from diesel engines. CARB is currently

[2] San Joaquin Valley Air Pollution Control District. Ambient Air Quality Standards & Valley Attainment Status. http://www.valleyair.org/aqinfo/attainment.htm. Accessed April 2021.

developing a control measure to reduce diesel PM and NOX emissions from existing off-road diesel equipment throughout the state.

California Global Warming Solutions Act – Established in 2006, Assembly Bill 32 (AB 32) requires that California's GHG emissions be reduced to 1990 levels by the year 2020. This will be implemented through a statewide cap on GHG emissions, which will be phased in beginning in 2012. AB 32 requires CARB to develop regulations and a mandatory reporting system to monitor global warming emissions levels.

In addition, the proposed Project is being evaluated pursuant to CEQA.

Local

San Joaquin Valley Air Pollution Control District

The San Joaquin Valley Air Pollution Control District (SJVAPCD) is the local agency charged with preparing, adopting, and implementing mobile, stationary, and area air emission control measures and standards. The SJVAPCD has several rules and regulations that may apply to the Project:

Rule 3135 (Dust Control Plan Fees) – This rule requires the project applicant to submit a fee in addition to a Dust Control Plan. The purpose of this rule is to recover the SJVAPCD's cost for reviewing these plans and conducting compliance inspections.

Rules 4101 (Visible Emissions) and 4102 (Nuisance) – These rules apply to any source of air contaminants and prohibits the visible emissions of air contaminants or any activity which creates a public nuisance.

Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations) – This rule applies to use of asphalt for paving new roadways or restoring existing roadways disturbed by project activities.

Regulation VIII (Fugitive PM_{10} Prohibitions) – This regulation, a series of eight regulations, is designed to reduce PM_{10} emissions by reducing fugitive dust. Regulation VIII requires implementation of control measures to ensure that visible dust emissions are substantially reduced. The control measures are summarized in Table 2.

Table 2
San Joaquin Valley Air Pollution Control District
Regulation VIII Control Measures for Construction Related Emissions of PM_{10}[3]

The following are required to be implemented at all construction sites:
All disturbed areas, including storage piles, which are not actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizers/suppressants, covered with a tarp or other similar cover, or vegetative
All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions during construction using water or chemical stabilizer
All land clearing, grubbing, scraping, excavation, land leveling, grading cut and fill, and demolition activities during construction shall be effectively controlled of fugitive dust emissions utilizing application of water or pre-soaking.
When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from top of container shall be maintained.
All operations shall limit, or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of
Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.
Within urban areas, trackout shall be immediately removed when it extends 50 or more feet from the site at the end of each workday.
Any site with 150 or more vehicle trips per day shall prevent carryout and trackout.

Porterville General Plan Policies

- OSC-G-9: Improve and protect Porterville's air quality by making air quality a priority in land use and transportation planning and in development review.
- OSC-I-59: Require preparation of a Health Risk Assessment for any development subject to the Air Toxics "Hot Spots" Act.
- OSC-I-61: Coordinate air quality planning efforts with other local, regional and State agencies.
- OSC-I-63: Notify local and regional jurisdictions of proposed projects that may affect regional air quality.

[3] San Joaquin Valley Air Pollution Control District. Current District Rules and Regulations. http://www.valleyair.org/rules/1ruleslist.htm#reg8. Accessed April 2021.

RESPONSES

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

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

c. Expose sensitive receptors to substantial pollutant concentrations?

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

Potentially Significant Impact. The San Joaquin Valley Air Basin (SJVAB) is designated nonattainment of state and federal health-based air quality standards for ozone and $PM_{2.5}$. The SJVAB is designated nonattainment of state PM_{10}. To meet Federal Clean Air Act (CAA) requirements, the SJVAPCD has multiple air quality attainment plan (AQAP) documents, including:

- Extreme Ozone Attainment Demonstration Plan (EOADP) for attainment of the 1-hour ozone standard (2004);
- 2007 Ozone Plan for attainment of the 8-hour ozone standard;
- 2007 PM_{10} Maintenance Plan and Request for Redesignation; and
- 2008 $PM_{2.5}$ Plan.

Because of the region's non-attainment status for ozone, $PM_{2.5}$, and PM_{10}, if the project-generated emissions of either of the ozone precursor pollutants (ROG or NOx), PM_{10}, or $PM_{2.5}$ were to exceed the SJVAPCD's significance thresholds, then the project uses would be considered to conflict with the attainment plans. In addition, if the project uses were to result in a change in land use and corresponding increases in vehicle miles traveled, they may result in an increase in vehicle miles traveled that is unaccounted for in regional emissions inventories contained in regional air quality control plans.

Predicted construction and operational emissions may exceed the SJVAPCD's significance thresholds for ROG, NOx, PM_{10}, and $PM_{2.5}$, could potentially create a cumulatively considerable net increase of these pollutants, could potentially expose sensitive receptors to substantial pollutant concentrations and could result in other emissions. Therefore, this impact is ***potentially significant.***

This topic will be addressed in the Project's forthcoming EIR.

IV. BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐

e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The proposed Project site is located in a portion of the central San Joaquin Valley that has, for decades, experienced intensive agricultural and urban disturbances. Current agricultural endeavors in the region include orange groves, olive orchards and row crops.

Like most of California, the Central San Joaquin Valley experiences a Mediterranean climate. Warm dry summers are followed by cool moist winters. Summer temperatures usually exceed 90 degrees Fahrenheit, and the relative humidity is generally very low. Winter temperatures rarely raise much above 70 degrees Fahrenheit, with daytime highs often below 60 degrees Fahrenheit. Annual precipitation within the proposed Project site is about 10 inches, almost 85% of which falls between the months of October and March. Nearly all precipitation falls in the form of rain and storm-water readily infiltrates the soils of the surrounding the sites.

Native plant and animal species once abundant in the region have become locally extirpated or have experienced large reductions in their populations due to conversion of upland, riparian, and aquatic habitats to agricultural and urban uses. Remaining native habitats are particularly valuable to native wildlife species including special status species that still persist in the region.

The site currently consists of land primarily utilized for agricultural activities, with a single-family residence located on the southern boundary and another residence on the eastern boundary property. Summit Charter Academy, Lombardi Campus lies to the north of the site, with a portion of the Friant-Kern Canal running diagonally along the northwest corner. The site is bounded to the east by N. Lombardi Street, with residential development, vacant land and agriculture beyond the roadway. The site is bounded to the south by W. Westfield Avenue, with residential development and vacant land beyond the roadway. The site is bounded by N. Westwood Street to the west, with residential development beyond the roadway in that direction. No aquatic or wetland features occur on the proposed Project site, therefore jurisdictional waters are considered absent from the site.

Regulatory Setting

Federal

Endangered Species Act

The USFWS and the National Oceanographic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS) enforce the provisions stipulated in the Federal Endangered Species Act of 1973 (FESA, 16 United States Code [USC] § 1531 et seq.). Threatened and endangered species on the federal list (50 Code of Federal Regulations [CFR] 17.11 and 17.12) are protected from take unless a Section 10 permit is granted to an entity other than a federal agency or a Biological Opinion with incidental take provisions is rendered to a federal lead agency via a Section 7 consultation. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct. Pursuant to the requirements of the FESA, an agency reviewing a proposed action within its jurisdiction must determine whether any federally listed species may be present in the proposed action area and determine whether the proposed action may affect such species. Under the FESA, habitat loss is considered an effect to a species. In addition, the agency is required to determine whether the proposed action is likely to jeopardize the continued existence of any species that is listed or proposed for listing under the FESA (16 USC § 1536[3], [4]). Therefore, proposed action-related effects to these species or their habitats would be considered significant and would require mitigation.

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) (16 USC § 703, Supp. I, 1989) prohibits killing, possessing, trading, or other forms of take of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. "Take" is defined as the pursuing, hunting, shooting, capturing, collecting, or killing of birds, their nests, eggs, or young (16 USC § 703 and § 715n). This act encompasses whole birds, parts of birds, and bird nests and eggs. The MBTA specifically protects migratory bird nests from possession, sale, purchase, barter transport, import, and export, and take. For nests, the definition of take per 50 CFR 10.12 is to collect. The MBTA does not include a definition of an "active nest." However, the "Migratory Bird Permit Memorandum" issued by the USFWS in 2003 clarifies the MBTA in that regard and states that the removal of nests, without eggs or birds, is legal under the MBTA, provided no possession (which is interpreted as holding the nest with the intent of retaining it) occurs during the destruction.

U.S. Army Corps of Engineers Jurisdiction

Areas meeting the regulatory definition of "waters of the United States" (jurisdictional waters) are subject to the jurisdiction of the United States Army Corps of Engineers (USACE) under provisions of Section

404 of the Clean Water Act (1972) and Section 10 of the Rivers and Harbors Act (1899). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, etc.), all impoundments of waters otherwise defined as waters of the United States, tributaries of waters otherwise defined as waters of the United States, the territorial seas, and wetlands adjacent to waters of the United States (33 CFR part 328.3). Ditches and drainage canals where water flows intermittently or ephemerally are not regulated as waters of the United States. Wetlands on non-agricultural lands are identified using the *Corps of Engineers Wetlands Delineation Manual* and related Regional Supplement.[4,5] Construction activities, including direct removal, filling, hydrologic disruption, or other means in jurisdictional waters are regulated by the USACE. The placement of dredged or fill material into such waters must comply with permit requirements of the USACE. No USACE permit will be effective in the absence of state water quality certification pursuant to Section 401 of the Clean Water Act. The State Water Resources Control Board is the state agency (together with the Regional Water Quality Control Boards) charged with implementing water quality certification in California.

State

California Endangered Species Act

The California Endangered Species Act (CESA) of 1970 (Fish and Game Code § 2050 et seq. and California Code of Regulations (CCR) Title 14, Subsection 670.2, 670.51) prohibits the take of species listed under CESA (14 CCR Subsection 670.2, 670.5). Take is defined as hunt, pursue, catch, capture, or kill or attempt to hunt, pursue, catch, capture, or kill. Under CESA, state agencies are required to consult with the California Department of Fish and Wildlife when preparing CEQA documents. Consultation ensures that proposed projects or actions do not have a negative effect on state-listed species. During consultation, CDFW determines whether take would occur and identifies "reasonable and prudent alternatives" for the project and conservation of special-status species. CDFW can authorize take of state-listed species under Sections 2080.1 and 2081(b) of Fish and Game Code in those cases where it is demonstrated that the impacts are minimized and mitigated. Take authorized under section 2081(b) must be minimized and fully mitigated. A CESA permit must be obtained if a project will result in take

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[4] United States Army Corps of Engineers (USACE). 1987. Corps of Engineers Wetlands Delineation Manual. Wetland Research Program Technical Report Y-87-1.

[5] United Sates Army Corps of Engineers (USACE). 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). ERDC/EL TR-08-28. https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1046489.pdf. Accessed April 2021.

of listed species, either during construction or over the life of the project. Under CESA, CDFW is responsible for maintaining a list of threatened and endangered species designated under state law (Fish and Game Code § 2070). CDFW also maintains lists of species of special concern, which serve as "watch lists." Pursuant to the requirements of CESA, a state or local agency reviewing a proposed project within its jurisdiction must determine whether the proposed project will have a potentially significant impact upon such species. Project-related impacts to species on the CESA list would be considered significant and would require mitigation. Impacts to species of concern or fully protected species would be considered significant under certain circumstances.

Native Plant Protection Act

The California Native Plant Protection Act of 1977 (California Fish and Game Code §§ 1900–1913) requires all state agencies to use their authority to carry out programs to conserve endangered and otherwise rare species of native plants. Provisions of the act prohibit the taking of listed plants from the wild and require the project proponent to notify CDFW at least 10 days in advance of any change in land use, which allows CDFW to salvage listed plants that would otherwise be destroyed.

Nesting Birds

California Fish and Game Code Subsections 3503, 3503.5, and 3800 prohibit the possession, incidental take, or needless destruction of birds, their nests, and eggs. California Fish and Game Code Section 3511 lists birds that are "Fully Protected" as those that may not be taken or possessed except under specific permit.

California Department of Fish and Wildlife Jurisdiction

The CDFW has regulatory jurisdiction over lakes and streams in California. Activities that divert or obstruct the natural flow of a stream; substantially change its bed, channel, or bank; or use any materials (including vegetation) from the streambed, may require that the project applicant enter into a Streambed Alteration Agreement with the CDFW in accordance with California Fish and Game Code Section 1602.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) of 1970 (Subsections 21000–21178) requires that CDFW be consulted during the CEQA review process regarding impacts of proposed projects on special-status species. Special-status species are defined under CEQA Guidelines subsection 15380(b) and (d) as those listed under FESA and CESA and species that are not currently protected by statute or regulation but would be considered rare, threatened, or endangered under these criteria or by the scientific community. Therefore, species considered rare or endangered are addressed in this biological resource evaluation regardless of whether they are afforded protection through any other statute or regulation.

The California Native Plant Society (CNPS) inventories the native flora of California and ranks species according to rarity.[6] Plants with Rare Plant Ranks 1A, 1B, 2A, or 2B are considered special-status species under CEQA.

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines Section 15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if it can be shown to meet certain specified criteria. These criteria have been modeled after the definition in the FESA and the section of the California Fish and Game Code dealing with rare and endangered plants and animals. Section 15380(d) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFWS or CDFW (i.e., candidate species) would occur. Thus, CEQA provides an agency with the ability to protect a species from the potential impacts of a project until the respective government agency has an opportunity to designate the species as protected, if warranted.

Local

Porterville General Plan Policies

- OSC-G-7: Protect habitat for special status species, designated under State and federal law.

RESPONSES

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?

Less than Significant Impact. The Project site is currently being utilized for agricultural activities. Specifically, the parcel is planted in orchards. The site is highly disturbed. The only vegetation aside from the orchard trees are grasses and weedy vegetation growing between the rows.

According to the Porterville General Plan, several special status plant species are potentially found within the Porterville Planning Area. These species include Keck's checkerbloom (*Sidalcea keckii*),

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[6] California Native Plant Society, Rare Plant Program (CNPS). 2019. Inventory of Rare and Endangered Plants (online edition, v8-03 0.39). California Native Plant Society, Sacramento, CA. http://www.rareplants.cnps.org/ Accessed April 2021.

Springville clarkia (*Clarkia springvillensis*), San Joaquin adobe sunburst (*Pseudobahia peirsonii*), Striped adobe-lily (*Fritillaria striata*), Madera leptosiphon (*Leptosiphon serrulatus*), Calico monkeyflower (*Mimulus pictus*), and Spiny-sepaled button celery (*Eryngium spinosepalum*). Additionally, the Valley elderberry longhorn beetle, which is a special status species, is supported by elderberry shrubs which are known to grown in several areas throughout the Planning Area.

The Planning Area also contains potential habitat for many special status species of animals. These species include California condor (*Gymnogyps californianus*), San Joaquin kit fox (*Vulpes macrotis mutica*), the previously mentioned Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), Vernal pool fairy shrimp (*Branchinecta lynchi*), American badger (*Taxidea taxus*), Pallid bat (*Antrozous pallidus*), Western mastiff bat (*Eumops perotis californicus*), Great Blue Heron (*Ardea herodias*), Western pond turtle (*Emys marmorata*), Tricolored blackbird (*Agelaius tricolor*), Morrison's blister beetle (*Lytta morrisoni*), and Molestan blister beetle (*Lytta molesta*).

However, according to the Special Status Species and Vegetation map (Figure 6-4) found in the Porterville General Plan's Open Space and Conservation Element, the proposed Project area does not support any of the aforementioned special status species. This is due to either lack of habitat within the Project area, the Project is outside the current range of the species, or the presence of disturbance would otherwise preclude their occurrence.

The Project site is highly disturbed with agricultural activities and is not expected to provide habitat for special status species. Thus, the impact remains ***less than significant.***

Mitigation Measures: None are required.

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?

Less than Significant Impact. Friant Kern Canal, which runs along the northwest corner of the Project site, is an artificial waterway operated and maintained by the Friant Water Authority. As it is hydrologically connected to the San Joaquin River, the Friant Kern Canal is likely under the jurisdiction of the USACE and therefore subject to provisions of the Clean Water Act. The Project will involve constructing residences in the canal vicinity; however, no impacts to the Friant Kern Canal are anticipated. As such, any impacts would be ***less than significant.***

Mitigation Measures: None are required.

c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less than Significant Impact. According to the National Wetlands Inventory[7], no wetlands occur in or near the Project site. Impacts would be ***less than significant.***

Mitigation Measures: None are required.

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant Impact with Mitigation. Migratory birds are expected to nest on and near the Project site. The Project has the potential to impede the use of nursery sites for native birds protected under the federal Migratory Bird Treaty Act and the California Fish and Game Code. Disturbance associated with construction during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Disturbance that causes nest abandonment or loss of reproductive effort is considered take by the CDFW. Loss of fertile eggs or nestlings, or any activities resulting in nest abandonment, could constitute a significant impact if the species is particularly rare in the region. Construction activities that disturb a rare nesting bird on the site or immediately adjacent to the construction zone could constitute a significant impact. Implementation of Mitigation Measure **BIO-1** would ensure that potential impacts remain ***less than significant***.

Mitigation Measures:

Protecting nesting birds.

BIO-1 Within 30 days prior to ground disturbance activities associated with construction or grading that would occur during the nesting/breeding season of native bird species potentially nesting on the site (typically March through August in the project region, or as determined by a qualified biologist), the applicant shall have weekly surveys

[7] United States Environmental Protection Agency. NEPAssist, National Wetlands Inventory. https://nepassisttool.epa.gov/nepassist/nepamap.aspx. Accessed April 2021.

conducted by a qualified biologist to determine if active nests of bird species protected by the Migratory Bird Treaty Act and/or the California Fish and Game Code are present in the disturbance zone or within 300 feet (500 feet for raptors and special-status species) of the disturbance zone. The surveys shall continue on a weekly basis with the last survey being conducted no more than seven days prior to initiation of disturbance work. If ground disturbance activities are delayed, then additional pre-disturbance surveys shall be conducted such that no more than seven days will have elapsed between the survey and ground disturbance activities. If active nests are found, clearing and construction within 300 feet of the nest (500 feet for raptors and special-status species) shall be postponed or halted, at the discretion of the biologist, until the nest is vacated and juveniles have fledged, as determined by the biologist, and there is no evidence of a second attempt at nesting. Limits of construction to avoid an active nest shall be established in the field with flagging, fencing, or other appropriate barriers and construction personnel shall be instructed on the sensitivity of nest areas. The biologist shall serve as a construction monitor during those periods when construction activities will occur near active nest areas to ensure that no inadvertent impacts on these nests occur. Results of the surveys shall be provided to CDFG in the Annual Mitigation Status Report.

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

Less than Significant Impact. The City of Porterville's General Plan includes various policies for the protection of biological resources. The proposed Project would not conflict with any of the adopted policies and any impacts would be considered ***less than significant***.

Mitigation Measures: None are required.

f. <u>Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?</u>

Less than Significant Impact. Several conservation and recovery plans apply to land in the City, including the Recovery Plan for Upland Species of the San Joaquin Valley and the Valley Elderberry Longhorn Beetle Habitat Conservation Plan. Figure 6-4 (Special Status Species and Sensitive Vegetation) in the City of Porterville's General Plan indicates the Project site is not within an area set aside for the conservation of habitat or sensitive plant or animal species pursuant to such plans. The nearest such areas are the Valley Elderberry Longhorn Beatle Conservation Area, located along the Tule River within the Yaudanchi Ecological Reserve. As such, any impacts would be ***less than significant***.

Mitigation Measures: None are required.

V. CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☒	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

ENVIRONMENTAL SETTING

Archaeological resources are places where human activity has measurably altered the earth or left deposits of physical remains. Archaeological resources may be either prehistoric (before the introduction of writing in a particular area) or historic (after the introduction of writing). The majority of such places in this region are associated with either Native American or Euroamerican occupation of the area. The most frequently encountered prehistoric and early historic Native American archaeological sites are village settlements with residential areas and sometimes cemeteries; temporary camps where food and raw materials were collected; smaller, briefly occupied sites where tools were manufactured or repaired; and special-use areas like caves, rock shelters, and sites of rock art. Historic archaeological sites may include foundations or features such as privies, corrals, and trash dumps.

The City of Porterville and Tulare County was inhabited by indigenous California Native American groups consisting of the Southern Valley Yokuts, Foothill Yokuts, Monache, and Tubatulabal. Most information regarding these groups is based on Spanish government and Franciscan mission records of the 18th and 19th centuries, and in studies conducted during the 1900s to 1930s by American and British ethnographers. The ethnographic setting presented below is derived from the early works, compiled by W. J. Wallace, Robert F.G. Spier, and Charles R. Smith, with statistical information provided by the California Native American Heritage Commission.

Of the four main groups inhabiting the Tulare County area, the Southern Valley Yokuts occupied the largest territory, which is defined roughly by the crest of the Diablo Range on the west and the foothills of the Sierra Nevada on the east, and from the Kings River on the north, to the Tehachapi Mountains on the south. The Foothill Yokuts inhabited the western slopes of the Sierra Nevada, between the Fresno River and Kern River, with settlements generally occurring between the 2,000 to 4,000-foot elevations. The Tubatulabal inhabited the Sierra Nevada Mountains, at the higher elevations, near Mt. Whitney in the east, extending westward along the drainages of the Kern River, and the Kern River-South Fork. The Monache were comprised of six small groups that lived in the Sierras east of the Foothill Yokuts, in locations ranging between 3,000- to 7,000-foot elevations.

A records search of the site files and maps was conducted at the Southern San Joaquin Valley Archaeological Information Center, California State University, Bakersfield (see Appendix A). These investigations determined that there were no previous cultural resource studies performed within the Project area and there have been three cultural resources studies performed within a one-half mile radius. There are no recorded resources within the Project area and there is one recorded resource, the Friant-Kern Canal, within the one-half mile radius.

Regulatory Setting

Federal

Cultural resources are protected by several federal regulations, none of which are relevant to this proposed Project because it will not be located on lands administered by a federal agency and the Project applicant is not requesting federal funding.

State

The proposed Project is subject to CEQA which requires public or private projects financed or approved by public agencies to assess their effects on historical resources. CEQA uses the term "historical resources" to include buildings, sites, structures, objects or districts, each of which may have historical, prehistoric, architectural, archaeological, cultural, or scientific importance. CEQA states that if implementation of a project results in significant effects on historical resources, then alternative plans or mitigation measures must be considered; however, only significant historical resources need to be addressed (CCR 15064.5, 15126.4). For the purposes of this CEQA document, a significant impact would occur if project implementation:

- Causes a substantial change in the significance of a historical resource
- Causes a substantial adverse change in the significance of an archaeological resource
- Disturbs any human remains, including those interred outside of formal cemeteries

Therefore, before impacts and mitigation measures can be identified, the significance of historical resources must be determined. CEQA guidelines define three ways that a property may qualify as a historical resource for the purposes of CEQA review:

- If the resource is listed in or determined eligible for listing in the California Register of Historical Resources (CRHR)
- If the resource is included in a local register of historical resources, as defined in Section 5020.1(k) of the PRC or identified as significant in an historical resource survey meeting the requirements of Section 5024.1(g) of the PRC unless the preponderance of evidence demonstrates that it is not historically or culturally significant
- The lead agency determines the resource to be significant as supported by substantial evidence in light of the whole record (CCR, Title 14, Division 6, Chapter 3, Section 15064.5(a))

Each of these ways of qualifying as a historical resource for the purpose of CEQA is related to the eligibility criteria for inclusion in the CRHR (PRC 5020.1(k), 5024.1, 5024.1(g)).

A historical resource may be eligible for inclusion in the CRHR if it:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
- Is associated with the lives of persons important in our past
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
- Has yielded, or may be likely to yield, information important in prehistory or history Properties that area listed in or eligible for listing in the National Register of Historic Places are considered eligible for listing in the CRHR, and thus are significant historical resources for the purpose of CEQA (PRC Section 5024.1(d)(1)).

Public Resources Code §5097.5

California Public Resources Code §5097.5 prohibits excavation or removal of any "vertebrate paleontological site...or any other archaeological, paleontological or historical feature, situated on public lands, except with express permission of the public agency having jurisdiction over such lands." Public lands are defined to include lands owned by or under the jurisdiction of the state or any city, county, district, authority or public corporation, or any agency thereof. Section 5097.5 states that any unauthorized disturbance or removal of archaeological, historical, or paleontological materials or sites located on public lands is a misdemeanor.

Human Remains

Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Native American Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper and dignified treatment of the remains and associated grave artifacts.

Local

Porterville General Plan Policies

- OSC-G-11: Identify and protect archaeological, paleontological, and historic resources.
- OSC-I-73: Require that new development analyze and avoid any potential impacts to archaeological, paleontological, and historic resources by:
    - Requiring a records review for development proposed in areas that are considered archaeologically sensitive, including hillsides and near the Tule River;
    - Studying the potential effects of development and construction (as required by CEQA);
    - Developing, where appropriate, mitigation measures to minimize potential impacts; and Implementing appropriate measures to avoid the identified impacts.

RESPONSES

a. <u>Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?</u>

Less than Significant Impact with Mitigation. The records search conducted at the SSJVIC (Appendix A) indicated that there are no recorded cultural resources within the Project area and one recorded resource within the one-half mile, the Friant-Kern Canal. There are no recorded cultural resources within the Project area or within ½ mile that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

Subsurface construction activities associated with the proposed Project could potentially damage or destroy previously undiscovered historic resources. This is considered a potentially significant impact; however, implementation of Mitigation Measure CUL-1 will ensure that significant impacts remain ***less than significant with mitigation incorporation.***

CUL-1 The following measures shall be implemented:

- Before initiation of construction or ground-disturbing activities associated with the Project, the City shall require all construction personnel to be alerted to the possibility of buried cultural resources, including historic, archeological and paleontological resources;
- The general contractor and its supervisory staff shall be responsible for monitoring the construction Project for disturbance of cultural resources; and
- If a potentially significant historical, archaeological, or paleontological resource, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains or trash deposits are encountered during subsurface construction activities (i.e., trenching, grading), all construction activities within a 100-foot radius of the identified potential resource shall cease until a qualified archaeologist evaluates the item for its significance and records the item on the appropriate State Department of Parks and Recreation (DPR) forms. The archaeologist shall determine whether the item requires further study. If, after the qualified archaeologist conducts appropriate technical analyses, the item is determined to be significant under California Environmental Quality Act, the archaeologist shall recommend feasible mitigation measures, which may include avoidance, preservation in place or other appropriate measure, as outlined in Public Resources Code section 21083.2. The City of Porterville shall implement said measures.

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

Less than Significant Impact with Mitigation. The possibility exists that subsurface construction activities may encounter undiscovered archaeological resources. This would be a potentially significant impact. Implementation of Mitigation Measure CUL-1 would require inadvertently discovery practices to be implemented should previously undiscovered archeological resources be located. As such, impacts to undiscovered archeological resources would be ***less than significant with mitigation incorporation.***

c. <u>Disturb any human remains, including those interred outside of formal cemeteries?</u>

Less than Significant Impact with Mitigation. There are no unique geological features or known fossil-bearing sediments in the vicinity of the proposed Project site. However, there remains the possibility for previously unknown, buried paleontological resources or unique geological sites to be uncovered during subsurface construction activities. Therefore, this would be a potentially significant impact. Mitigation is proposed requiring standard inadvertent discovery procedures to be implemented to reduce this impact to a level of ***less than significant with mitigation incorporation***.

CUL-2 The Project applicant will incorporate into the construction contract(s) a provision that in the event a fossil or fossil formations are discovered during any subsurface construction activities for the proposed Project (i.e., trenching, grading), all excavations within 100 feet of the find shall be temporarily halted until the find is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology standards. The paleontologist shall notify the appropriate representative at the City of Porterville, who shall coordinate with the paleontologist as to any necessary investigation of the find. If the find is determined to be significant under CEQA, the City shall implement those measures, which may include avoidance, preservation in place, or other appropriate measures, as outlined in Public Resources Code section 21083.2.

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

ENVIRONMENTAL SETTING

California's total energy consumption is second-highest in the nation, but in 2018 the state's per capita energy consumption ranked the fourth-lowest, due in part to its mild climate and its energy efficiency programs.[8] In 2018, California was the top-ranking producer of electricity from solar, geothermal and biomass energy, and second in the nation in conventional hydroelectric power generation.

Energy usage is typically quantified using the British thermal unit (BTU). As a point of reference, the approximately amounts of energy contained in common energy sources are as follows:

Energy Source	BTUs[9]
Gasoline	120,429 per gallon
Natural Gas	1,037 per cubic foot
Electricity	3,412 per kilowatt-hour

[8] U.S. Energy Information Administration. Independent Statistics and Analysis. California Profile Overview. https://www.eia.gov/state/?sid=CA#tabs-1. Accessed April 2021.
[9] U.S. Energy Information Administration. Energy Units and Calculators Explained. https://www.eia.gov/energyexplained/index.php?page=about_energy_units. Accessed April 2021.

California electrical consumption in 2018 was 7,876.8 trillion BTU[10], as provided in Table 3, while total electrical consumption by Tulare County in 2019 was 14.202 trillion BTU.[11]

Table 3 – 2018 California Energy Consumption[12]

End User	BTU of energy consumed (in trillions)	Percentage of total consumption
Residential	1,440.1	18.3
Commercial	1,510.4	19.2
Industrial	1,847.9	23.5
Transportation	3,078.4	39.1
Total	**7,876.8**	--

The California Department of Transportation (Caltrans) reports that approximately 25.6 million automobiles, 5.2 million trucks, and 857,677 motorcycles were registered in the state in 2019, while in 2017 a total estimated 344.3 billion vehicles miles were traveled (VMT).[13]

Applicable Regulations

California Energy Code (Title 24, Part 6, Building Energy Efficiency Standards)

California Code of Regulations Title 24, Part 6 comprises the California Energy Code, which was adopted to ensure that building construction, system design and installation achieve energy efficiency. The California Energy Code was first established in 1978 by the CEC in response to a legislative mandate to reduce California's energy consumption, and apply to energy consumed for heating, cooling, ventilation, water heating, and lighting in new residential and non-residential buildings. The standards are updated periodically to increase the baseline energy efficiency requirements. The 2013 Building Energy Efficiency Standards focus on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings and include requirements to enable both demand reductions during critical peak periods and future solar electric and thermal system installations. Although it was not originally intended to reduce greenhouse gas (GHG) emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

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[10] U.S. Energy Information Administration. Independent Statistics and Analysis. California Profile Overview. https://www.eia.gov/state/?sid=CA#tabs-1. Accessed April 2021.
[11] California Energy Commission. Electricity Consumption by County. http://ecdms.energy.ca.gov/elecbycounty.aspx. Accessed April 2021.
[12] U.S. Energy Information Administration. Independent Statistics and Analysis. California Profile Overview. https://www.eia.gov/state/?sid=CA#tabs-1. Accessed April 2021.
[13] Caltrans. 2017. California Transportation Fact Booklet. https://dot.ca.gov/-/media/dot-media/programs/research-innovation-system-information/documents/caltrans-fact-booklets/2019-cfb-a11y.pdf. Accessed April 2021.

California Green Building Standards Code (Title 24, Part II, CALGreen)

The California Building Standards Commission adopted the California Green Buildings Standards Code (CALGreen in Part 11 of the Title 24 Building Standards Code) for all new construction statewide on July 17, 2008. Originally a volunteer measure, the code became mandatory in 2010 and the most recent update (2019) went on January 1, 2020. CALGreen sets targets for energy efficiency, water consumption, dual plumbing systems for potable and recyclable water, diversion of construction waste from landfills, and use of environmentally sensitive materials in construction and design, including eco-friendly flooring, carpeting, paint, coatings, thermal insulation, and acoustical wall and ceiling panels. The 2019 CALGreen Code includes mandatory measures for non-residential development related to site development; water use; weather resistance and moisture management; construction waste reduction, disposal, and recycling; building maintenance and operation; pollutant control; indoor air quality; environmental comfort; and outdoor air quality. Mandatory measures for residential development pertain to green building; planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; environmental quality; and installer and special inspector qualifications.

Clean Energy and Pollution Reduction Act (SB 350)

The Clean Energy and Pollution Reduction Act (SB 350) was passed by California Governor Brown on October 7, 2015, and establishes new clean energy, clean air, and greenhouse gas reduction goals for the year 2030 and beyond. SB 350 establishes a greenhouse gas reduction target of 40 percent below 1990 levels for the State of California, further enhancing the ability for the state to meet the goal of reducing greenhouse gas emissions by 80 percent below 1990 levels by the year 2050.

Renewable Portfolio Standard (SB 1078 and SB 107)

Established in 2002 under SB 1078, the state's Renewables Portfolio Standard (RPS) was amended under SB 107 to require accelerated energy reduction goals by requiring that by the year 2010, 20 percent of electricity sales in the state be served by renewable energy resources. In years following its adoption, Executive Order S-14-08 was signed, requiring electricity retail sellers to provide 33 percent of their service loads with renewable energy by the year 2020. In 2011, SB X1-2 was signed, aligning the RPS target with the 33 percent requirement by the year 2020. This new RPS applied to all state electricity retailers, including publicly owned utilities, investor-owned utilities, electrical service providers, and community choice aggregators. All entities included under the RPS were required to adopt the RPS 20 percent by year 2020 reduction goal by the end of 2013, adopt a reduction goal of 25 percent by the end of 2016, and meet the 33 percent reduction goal by the end of 2020. In addition, the Air Resources Board, under Executive Order S-21-09, was required to adopt regulations consistent with these 33 percent renewable energy targets.

RESPONSES

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

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

Potentially Significant Impact. The proposed Project consists of the development of a 233 residential development. The Project would introduce energy usage on a site that is currently demanding minimal energy. By comparison, at buildout, the Project would consume amounts of energy in both the short-term during Project construction and in the long-term during Project operation. Therefore, this impact is ***potentially significant.***

This topic will be addressed in the Project's forthcoming EIR.

VII. GEOLOGY AND SOILS **Would the project:**	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☒	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d. Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code	☐	☐	☒	☐

	creating substantial risks to life or property?				
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?	☐	☐	☐	☒
f.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

ENVIRONMENTAL SETTING

The City of Porterville is situated along the western slope of the Sierra Nevada. The Sierra Nevada geomorphic province is primarily composed of cretaceous granitic plutons and remnants of Paleozoic and Mesozoic metavolcanic and metasedimentary rocks, and Cenozoic volcan and sedimentary rocks. The majority of Porterville has elevations ranging from 400 to 800 feet.

Faulting and Seismicity

There are no known active earthquake faults in the City of Porterville. The proposed Project site is not located within an Alquist-Priolo Earthquake Fault Zone and no known faults cut through the local soil at the site. There are several faults located within a 70-mile radius of the proposed Project site. An unnamed fault is approximately seven miles south, Poso Creek Fault is approximately 32 miles southwest, Kern Canyon Fault is approximately 35 miles east, White Wolf Fault Zone is approximately 60 miles southwest, and San Andreas and Cholame-Carrizo Fault sections are approximately 70 miles southwest of the proposed Project site. These faults have exhibited activity in the last 1.6 million years, but not in the last 200 years. It is possible, but unlikely, that previously unknown faults could become active in the area. No Alquist-Priolo Earthquake Fault Zones are in or near Porterville. Porterville is designated as an area in Seismic Design Category 4 according to the most recent version of the California Building Code. Under this designation, earthquake resistant design and materials are required to meet or exceed the current seismic engineering standards of the Building Code.

Soils

According to the City's General Plan EIR, much of the Project area has soils with moderate to high erosion potential. Generally, areas most susceptible to soil erosion are hilly or have slopes greater than 15 percent. Lower flatlands, such as the subject site, are usually less likely to erode than those located on slopes.

Regulatory Setting

Federal

Federal regulations for geology and soils are not relevant to the proposed Project because it is not a federal undertaking (the Project site is not located on lands administered by a federal agency, and the Project applicant is not requesting federal funding or a federal permit).

State

California Building Code

California law provides a minimum standard for building design through the California Building Code (CBC). The CBC is based on the IBC, with amendments for California conditions. Part 2, Volume 2, Chapter 16 of the CBC contains specific requirements for seismic safety. Part 2, Volume 2, Chapter 18 of the CBC regulates soils and foundations. Part 2, Volume 2, Appendix J of the CBC regulates grading activities. Construction activities also are subject to occupational safety standards for excavation, shoring, and trenching as specified in California Occupational Safety and Health Administration regulations (Title 8 of the California Code of Regulations) and in section A33 of the CBC. About one-third of the text within the California Building Code has been tailored for California earthquake conditions.

Paleontological Resources

Paleontological resources are the fossilized remains of plants and animals and associated deposits. The Society of Vertebrate Paleontology has identified vertebrate fossils, their taphonomic and associated environmental indicators, and fossiliferous deposits as significant nonrenewable paleontological resources. Botanical and invertebrate fossils and assemblages may also be considered significant resources.

CEQA requires that a determination be made as to whether a project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature (CEQA Appendix G(v)(c)). If an impact is significant, CEQA requires feasible measures to minimize the impact (CCR Title 14(3) §15126.4 (a)(1)). California Public Resources Code §5097.5 (see above) also applies to paleontological resources.

In addition, the proposed Project is being evaluated pursuant to CEQA.

Local

Porterville General Plan Policies

- OSC-G-5: Preserve soil resources to minimize damage to people, property, and the environment resulting from potential hazards.
- OSC-G-6: Protect significant mineral resources.
- OSC-I-21: Adopt soil conservation regulations to reduce erosion caused by overgrazing, plowing, mining, new roadways and paths, construction, and off-road vehicles.
- OSC-I-23: Require adequate grading and replanting to minimize erosion and prevent slippage of manmade slopes.
- PHS-G-4: Protect soils, surface water, and groundwater from contamination from hazardous materials.
- PHS-G-1: Minimize risks of property damage and personal injury posed by geologic and seismic hazards.
- PHS-I-2: Maintain and enforce appropriate building standards and codes to avoid and/or reduce risks associated with geologic constraints and to ensure that all new construction is designed to meet current safety regulations.
- PHS-I-17: Require remediation and cleanup of sites contaminated with hazardous substances.

RESPONSES

a-i. <u>Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving 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.</u>

No Impact. The proposed Project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone. Additionally, according to the Fault Rupture Zones Map prepared by the California Department of Conservation in 2007, the Project area is not located within a Fault-Rupture Hazard

Area.[14] Since no known surface expression of active faults is believed to cross the site, fault rupture through the site is not anticipated. ***No impacts*** would occur.

Mitigation Measures: None are required.

a-ii. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

Less than Significant Impact. Although the Project area occurs in an area with historically low to moderate level of seismicity, strong ground shaking could occur in the region; however, the Project would be designed to withstand strong ground shaking, in compliance with the California Building Code, to minimize the potential effects of ground shaking and other seismic activity. Impacts from seismic ground shaking would result in ***less than significant impacts***.

Mitigation Measures: None are required.

a-iii. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

Less than Significant Impact. See Response a-ii. According to the City of Porterville General Plan, Public Health and Safety Element the Project site has a moderate to high risk of damaging ground motion; however, the Project's Valley location has a low risk of liquefaction. No Subsidence prone soils or oil or gas production is involved with the proposed Project. Therefore, the impact is ***less than significant***.

Mitigation Measures: None are required.

a-iv. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Less than Significant Impact. The City of Porterville's 2030 General Plan, Figure 7-1 (Geological and Soil Hazards) indicates that the proposed Project site is located on relatively flat topography and is not

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[14] California Department of Conservation. CGS Information Warehouse. Regulatory Maps and Reports. https://maps.conservation.ca.gov/cgs/informationwarehouse/regulatorymaps/. Accessed May 2021.

located adjacent to any steep slopes or areas that would otherwise be subject to landslides. Therefore, the impact is ***less than significant***.

Mitigation Measures: None are required.

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

Less than Significant Impact. The City of Porterville sits on top of the alluvial fans of the Tule River and its distributaries. The soil in the proposed Project area is characterized as moderately deep, well-drained, sandy loam underlain by hardpan. The Project site has a generally flat topography, is in an established urban area and does not include any Project features that would result in soil erosion or loss of topsoil. Therefore, the impact is ***less than significant***.

Mitigation Measures: None are required.

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?

No Impact. The City of Porterville sits on top of the alluvial fans of the Tule River and its distributaries. The soil in the proposed Project area is characterized as moderately deep, well-drained, sandy loam underlain by hardpan. See also Response a-ii. There is ***no impact***.

Mitigation Measures: None are required.

d. Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code creating substantial risks to life or property?

Less than Significant Impact. See Responses (c) and (a-ii). The impact is ***less than significant***.

Mitigation Measures: None are required.

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?

No Impact. The Project will tie into the City's existing wastewater system and will not require installation of a septic tank or alternate wastewater disposal system. There is ***no impact.***

Mitigation Measures: None are required.

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

Less Than Significant Impact with Mitigation. The General Plan does not identify any unique geologic features within the Planning Area and according to the CHRIS search results, there are no known paleontological resources on or near the site; however, it is unknown if any subsurface unique paleontological resources exist. Mitigation measures CUL-1 and CUL-2 shall be implemented to reduce potential impacts and as such, impacts are considered ***less than significant with mitigation incorporation***.

Mitigation Measures: CUL-1 and CUL-2.

VIII. GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐

ENVIRONMENTAL SETTING

Various gases in the earth's atmosphere play an important role in moderating the earth's surface temperature. Solar radiation enters earth's atmosphere from space and a portion of the radiation is absorbed by the earth's surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. GHGs are transparent to solar radiation, but are effective in absorbing infrared radiation. Consequently, radiation that would otherwise escape back into space is retained, resulting in a warming of the earth's atmosphere. This phenomenon is known as the greenhouse effect. Scientific research to date indicates that some of the observed climate change is a result of increased GHG emissions associated with human activity. Among the GHGs contributing to the greenhouse effect are water vapor, carbon dioxide (CO_2), methane (CH_4), ozone, Nitrous Oxide (NO_x), and chlorofluorocarbons. Human-caused emissions of these GHGs in excess of natural ambient concentrations are considered responsible for enhancing the greenhouse effect. GHG emissions contributing to global climate change are attributable, in large part, to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation. Global climate change is, indeed, a global issue. GHGs are global pollutants, unlike criteria pollutants and TACs (which are pollutants of regional and/or local concern). Global climate change, if it occurs, could potentially affect water resources in California. Rising temperatures could be anticipated to result in sea-level rise (as polar ice caps melt) and possibly change the timing and amount of precipitation, which could alter water quality. According to some, climate change could result in more extreme weather patterns; both heavier precipitation that could lead to flooding, as well as more extended drought periods. There is uncertainty regarding the timing, magnitude, and nature of the potential changes to water resources as a result of climate change; however, several trends are evident.

Snowpack and snowmelt may also be affected by climate change. Much of California's precipitation falls as snow in the Sierra Nevada and southern Cascades, and snowpack represents approximately 35 percent of the state's useable annual water supply. The snowmelt typically occurs from April through July; it provides natural water flow to streams and reservoirs after the annual rainy season has ended. As air temperatures increase due to climate change, the water stored in California's snowpack could be affected by increasing temperatures resulting in: (1) decreased snowfall, and (2) earlier snowmelt.

Regulatory Setting

Federal

The USEPA Mandatory Reporting Rule (40 CFR Part 98), which became effective December 29, 2009, requires that all facilities that emit more than 25,000 metric tons CO_2-equivalent per year beginning in 2010, report their emissions on an annual basis. On May 13, 2010, the USEPA issued a final rule that established an approach to addressing GHG emissions from stationary sources under the CAA permitting programs. The final rule set thresholds for GHG emissions that define when permits under the New Source Review Prevention of Significant Deterioration and title V Operating Permit programs are required for new and existing industrial facilities.

In addition, the Supreme Court decision in Massachusetts v. EPA (Supreme Court Case 05-1120) found that the USEPA has the authority to list GHGs as pollutants and to regulate emissions of GHGs under the CAA. On April 17, 2009, the USEPA found that CO_2, CH_4, NO_x, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride may contribute to air pollution and may endanger public health and welfare. This finding may result in the USEPA regulating GHG emissions; however, to date the USEPA has not proposed regulations based on this finding.

State

California is taking action to reduce GHG emissions. In June 2005, Governor Schwarzenegger signed Executive Order S-3-05 to address climate change and GHG emissions in California. This order sets the following goals for statewide GHG emissions:

- Reduce to 2000 levels by 2010
- Reduce to 1990 levels by 2020
- Reduce to 80 percent below 1990 levels by 2050

In addition, the proposed Project is being evaluated pursuant to CEQA.

Local

San Joaquin Valley Air Pollution Control District (SJVAPCD)

In August 2008, the SJVAPCD adopted the Climate Change Action Plan, which directed the SJVAPCD to develop guidance to assist lead agencies, project proponents, permit applicants, and interested parties in assessing and reducing the impacts of project specific greenhouse gas emissions on global climate change.

In 2009, the SJVAPCD adopted the guidance document: Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects Under CEQA. This document recommends the usage of performance-based standards, otherwise knowns as Best Performance Standards (BPS), to assess significance of project-specific greenhouse gas emissions on global climate change during the environmental review process. Projects implementing BPS in accordance with SJVAPCD's guidance would be determined to have a less than significant individual and cumulative impact on greenhouse gas emissions and would not require project specific quantification of greenhouse gas emissions.[15]

RESPONSES

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

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

Potentially Significant Impact. Greenhouse gas emissions would generate from long-term area and mobile sources as well as indirectly from energy consumption. Mobile sources would include residential vehicle trips and area source emissions would result from consumption of natural gas and electricity. Potential impacts to greenhouse gas emissions are ***potentially significant*** and as such, will be analyzed in the forthcoming EIR.

[15] SJVAPCD. Guidance for Assessing and Mitigating Air Quality Impacts. March 19, 2015. http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf. Accessed April 2021. Page 112.

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f. Impair implementation of or physically interfere with an adopted emergency	☐	☐	☐	☒

	response plan or emergency evacuation plan?				
g.	Expose people or structures either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The proposed Project site is located in the northwestern portion of the City of Porterville, near primarily residential and agricultural land uses. The site is currently in agricultural use, specifically planted with orchards.

Residences exist within a quarter-mile of the Project site on all sides. The Project site is approximately four miles north of the Porterville Municipal Airport. Fresno-Yosemite International Airport is the closest major airport to the proposed Project site, approximately 59 miles northwest.

The Teapot Dome Landfill plant is approximately five miles southwest of the City limits, while the Porterville Wastewater Treatment Plant is located approximately 1.5 miles southeast of the site.

Regulatory Setting

Federal

The primary federal agencies with responsibility for hazardous materials management include the EPA, U.S. Department of Labor Occupational Safety and Health Administration (OSHA), and the U.S. Department of Transportation (DOT). The Environmental Protection Agency (EPA) was created to protect human health and to safeguard the natural environment – air, water and land – and works closely with other federal agencies, and state and local governments to develop and enforce regulations under existing environmental laws. Where national standards are not met, EPA can issue sanctions and take other steps to assist the states in reaching the desired levels of environmental quality. EPA also works with industries and all levels of government in a wide variety of voluntary pollution prevention programs and energy conservation efforts.

State

The California Department of Industrial Relations, Division of Occupational Safety and Health is the administering agency designed to protect worker health and general facility safety. The California Department of Forestry and Fire Protection has designated the area that includes the proposed Project site as a Local Responsibility Area, defined as an area where the local fire jurisdiction is responsible for emergency fire response.

In addition, the proposed Project is being evaluated pursuant to CEQA.

Local

City of Porterville Fire Department

The City of Porterville Fire Department, Fire Prevention Division provides limited oversight of hazardous materials. The Fire Department is responsible for conducting inspections for code compliance and fire-safe practices, permitting of certain hazardous materials, and for investigation of fire and hazardous materials incidents. The Fire Department regulates explosive and hazardous materials under the California Building Code, and permits the handling, storage and use of any explosive or other hazardous material.

Tulare County Environmental Health Division

The Tulare County Environmental Health Division (TCEHD) is the Certified Unified Program Agency (CUPA) for all cities and unincorporated areas within Tulare County. The CUPA was created by the California Legislature to minimize the number of inspections and different fees for businesses. The TCEHD provides the management and record keeping of hazardous materials and underground storage tank (UST) sites for Tulare County, including the City of Porterville.

Porterville General Plan Policies

- PHS-I-17: Require remediation and cleanup of sites contaminated with hazardous substances.
- PHS-I-18: Adopt a Household Hazardous Waste Program and support the proper disposal of hazardous household waste and waste oil; encourage citizens and crime watch organizations to report unlawful dumping of hazardous materials.
- PHS-I-19: Ensure that all specified hazardous facilities conform to the Tulare County Hazardous Waste Management Plan.
- PHS-I-21: Coordinate enforcement of the Hazardous Material Disclosure Law and the implementation of the Hazardous Material Emergency Response Plan with the Tulare County Health and Human Service Agency.

RESPONSES

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

The proposed Project would include the construction of up to 233 single-family residential homes with the associated improvements. Proposed Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. In addition, the Project would be required to comply with the National Pollutant Discharge Elimination System (NPDES) permit program through the submission and implementation of a Stormwater Pollution Prevention Plan during construction activities to prevent contaminated runoff from leaving the project site. Therefore, no significant impacts would occur during construction activities.

The operational phase of the proposed Project would occur after construction is completed and residents move in to occupy the structures on a day-to-day basis. Upon Annexation and Rezone approval, the proposed Project will include land uses that are considered compatible with the surrounding uses. The current land uses are also considered compatible with the surrounding uses. None of these land uses routinely transport, use, or dispose of hazardous materials, or present a reasonably foreseeable release of hazardous materials, with the exception of common residential grade hazardous materials such as household and commercial cleaners, paint, etc. The proposed Project would not create a significant hazard through the routine transport, use, or disposal of hazardous materials, nor would a significant hazard to the public or to the environment through the reasonably foreseeable upset and accidental conditions involving the likely release of hazardous materials into the environment occur. Therefore, the proposed Project will not create a significant hazard to the public or the environment and any impacts would be ***less than significant***.

Mitigation Measures: None are required.

b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant Impact. See Response a. above. Any accumulated hazardous construction or operational wastes will be collected and transported away from the site in compliance with all federal, state and local regulations. Any impacts would be ***less than significant***.

Mitigation Measures: None are required.

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

Less Than Significant Impact. The Summit Charter Academy, Lombardi Campus is located within one-quarter mile of the Project site. As the proposed Project includes the development of single-family residences, it is not reasonably foreseeable that the proposed Project will cause a significant impact by emitting hazardous waste or bringing hazardous materials near a proposed or existing school. Residential land uses do not generate, store, or dispose of significant quantities of hazardous materials. Such uses also do not normally involve dangerous activities that could expose persons onsite or in the surrounding areas to large quantities of hazardous materials. See also Responses a. and b. regarding hazardous material handling. The impact is ***less than significant.***

Mitigation Measures: None are required.

d. <u>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?</u>

No Impact. The proposed Project site is not located on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 (Geotracker and EnviroStordatabases – accessed in April 2021). As such, ***no impacts*** would occur that would create a significant hazard to the public or the environment.

Mitigation Measures: None are required.

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

No Impact. The proposed Project site is approximately four miles north of the Porterville Municipal Airport. Upon Annexation and Rezone approval, land use controls for this area will be provided by the City of Porterville General Plan and Development Ordinance, and the Tulare County General Plan and Zoning Ordinance, Part 77.21. Additionally, the Tulare County Comprehensive Airport Land Use Plan indicates that the Project area is outside the Proposed Airport Influence Area. The Project site is not within an established Airport Safety Zone. There is ***no impact***.

Mitigation Measures: None are required.

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

No Impact. The Project will not interfere with any adopted emergency response or evacuation plan. There is ***no impact.***

Mitigation Measures: None are required.

g. <u>Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?</u>

No Impact. There are no wildlands on or near the Project site. There is ***no impact***.

Mitigation Measures: None are required.

X. HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐
i. Result in substantial erosion or siltation on- or off- site;	☐	☐	☒	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
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	☐	☐	☒	☐
iv. impede or redirect flood flows?	☐	☐	☒	☐

X. HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The City of Porterville has a dry, desert-like climate with evaporation rates that exceed rainfall. Annual precipitation within the proposed Project site is about 10 inches, almost 85% of which falls between the months of October and March. Nearly all precipitation falls in the form of rain and storm-water readily infiltrates the soils of the surrounding the sites.

The City of Porterville is located in the Tulare Lake Basin, and within the Tule Sub-basin. which has been classified as a critically overdrafted basin.[16] According to the City's General Plan EIR, wells in and around the city have shown a moderate groundwater level decline of about 0.75 feet per year over the past 20 years. The City's municipal wells are generally scattered west of Plano Avenue and south of Westfield Avenue and the distribution system is operated under pressure. The City of Porterville receives all of its municipal water from groundwater.[17]

According to the City of Porterville 2015 Urban Water Master Plan (UWMP)[18], water demands within the City's service area are largely residential, with commercial, industrial, institutional, and City-related consumption accounts for approximately 25% of the total water demand.

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[16] California Department of Water Resources. Critically Overdrafted Basins Map. https://water.ca.gov/Programs/Groundwater-Management/Bulletin-118/Critically-Overdrafted-Basins. Accessed May 2021.
[17] City of Porterville – Hydraulic Analysis, page 1. Dee Jaspar & Associates, Inc. (May 2015).
[18] City of Porterville 2015 Urban Water Management Plan. October 2017. http://www.ci.porterville.ca.us/documents/2015UWMPUpdate-Final.pdf. Accessed May 2021.

The City's water use increased in a fairly linear fashion up through 2007. Beginning in 2008, water use began to decline due to economic conditions and water conservation measures. The City produced/used approximately 3,117 MG (9,565 ac/ft/yr) of water from groundwater supplies to serve a population of 65,702 in 2015. Of that, approximately 1,786 MG were for single family residential.[19] This was approximately 37% less than what the General Plan projected for water use for Year 2015. It should also be noted that actual population growth within the City has not kept up with the population growth projections of the General Plan. Therefore, the actual water use in the City is less than what was projected under the City's General Plan.

The City implements its Drought Response Plan during certain times of the year when watering is limited or restricted. Currently, the City is in Drought Response Phase IV which prohibits residential outdoor watering six days per week. This and other mandatory water conservation measures are being enforced with fines of up to $500 for non-compliance.[20]

Regulatory Setting

Federal

Clean Water Act

The Clean Water Act (CWA) is intended to restore and maintain the chemical, physical, and biological integrity of the nation's waters (33 CFR 1251). The regulations implementing the CWA protect waters of the U.S. including streams and wetlands (33 CFR 328.3). The CWA requires states to set standards to protect, maintain, and restore water quality by regulating point source and some non-point source discharges. Under Section 402 of the CWA, the National Pollutant Discharge Elimination System (NPDES) permit process was established to regulate these discharges.

The National Flood Insurance Act (1968) makes available federally subsidized flood insurance to owners of flood-prone properties. To facilitate identifying areas with flood potential, Federal Emergency Management Agency (FEMA) has developed Flood Insurance Rate Maps (FIRM) that can be used for planning purposes.

State

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[19] City of Porterville 2015 Urban Water Management Plan. October 2017. http://www.ci.porterville.ca.us/documents/2015UWMPUpdate-Final.pdf. Accessed May 2021. Page 14.
[20] City of Porterville, Public Works, Water Conservation. http://www.ci.porterville.ca.us/depts/PublicWorks/waterconservation.cfm Accessed April 2021.

State Water Resources Control Board

The State Water Resources Control Board (SWRCB), located in Sacramento, is the agency with jurisdiction over water quality issues in the State of California. The SWRCB is governed by the Porter-Cologne Water Quality Act (Division 7 of the California Water Code), which establishes the legal framework for water quality control activities by the SWRCB. The intent of the Porter-Cologne Act is to regulate factors which may affect the quality of waters of the State to attain the highest quality which is reasonable, considering a full range of demands and values. Much of the implementation of the SWRCB's responsibilities is delegated to its nine Regional Boards. The proposed Project site is located within the Central Valley Region.

Regional Water Quality Board

The Regional Water Quality Control Board (RWQCB) administers the NPDES storm water-permitting program in the Central Valley region. Construction activities on one acre or more are subject to the permitting requirements of the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit). The General Construction Permit requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP). The plan will include specifications for Best Management Practices (BMPs) that will be implemented during proposed Project construction to control degradation of surface water by preventing the potential erosion of sediments or discharge of pollutants from the construction area. The General Construction Permit program was established by the RWQCB for the specific purpose of reducing impacts to surface waters that may occur due to construction activities. BMPs have been established by the RWQCB in the California Storm Water Best Management Practice Handbook (2003), and are recognized as effectively reducing degradation of surface waters to an acceptable level. Additionally, the SWPPP will describe measures to prevent or control runoff degradation after construction is complete, and identify a plan to inspect and maintain these facilities or project elements.

In addition, the proposed Project is being evaluated pursuant to CEQA.

Local

Porterville General Plan Policies

- OSC-I-43: Work with agricultural and industrial uses to ensure that water contamination and waste products are handled in a manner that protects the long-term viability of water resources.

- OSC-I-44: Work with the Regional Water Quality Control Board to ensure that all point source pollutants are adequately mitigated (as part of the CEQA review and project approval process) and monitored to ensure long-term compliance.
- OSC-I-45: Continue to require use of feasible and practical best management practices (BMPs) and other mitigation measures designed to protect surface water and groundwater from the adverse effects of construction activities and urban runoff in coordination with the Regional Water Quality Control Board.
- OSC-I-51: Prior to the approval of individual projects, require the City Engineer and/or Building Official to verify that the provisions of applicable point source pollution programs have been satisfied.
- PHS-G-2: Protect the community from risks to life and property posed by flooding and stormwater runoff.
- PU-I-7: Continue to require water meters in all new development.
- PU-I-8: Require that agriculture water rights be assigned to the city when agricultural land is annexed to the City for urban development, consistent with the General Plan.

RESPONSES

a. <u>Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?</u>

Less than Significant Impact. The State Water Resources Control Board requires any new construction project over an acre to complete a Stormwater Pollution Prevention Plan (SWPPP). A SWPPP involves site planning and scheduling, limiting disturbed soil areas, and determining best management practices to minimize the risk of pollution and sediments being discharged from construction sites. Implementation of the SWPPP will minimize the potential for impacts associated with erosion or siltation onsite or offsite.

The proposed Project will result in wastewater from residential units that will be discharged into the City's existing wastewater treatment system. The wastewater will be typical of other urban/residential developments consisting of bathrooms, kitchen drains and other similar features. The Project will not discharge any unusual or atypical wastewater.

Additionally, there will be no discharge to any surface or groundwater source. As such, the proposed Project will not violate any water quality standards and will not impact waste discharge requirements. The impact will be ***less than significant***.

Mitigation Measures: None are required.

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

Less Than Significant Impact.

Water Supply

The information below provides a comparison of existing (baseline) conditions versus potential water use based on full buildout of the proposed project. Existing agricultural water use is based on crop information contained in Tulare County's *Phase I Water Supply Evaluation.*[21] The site is currently and has historically been farmed with 56 acres of plums. Water usage for orchards in Tulare County is documented to 3.6 acre/feet per year[22], so it is estimated that the site currently uses 201.6 acre/ft per year (56 acres X 3.6 ac/ft).

To determine the estimated water use by the proposed Project, this analysis uses the same calculation methods as the City's UWMP. According to the City's UWMP, the City has a Year 2020 water usage goal of 179 gallons per capita per day (gpcpd).[23] To determine the number of persons (water users) that would result from the proposed Project, this analysis uses the City's 2015-2023 Housing Element (September 2015) which shows an average household size of 3.39 persons per household in Porterville.[24]

The proposed Project would include the construction of up to 233 single family residences. Applying the City's average of 3.39 persons per household, this equates to approximately 790 persons. At 179 gallons per day per capita, the Project would require approximately 51.6 MG per year of potable water, or 158.35 acre/feet per year (790 residents X 179 gpcpd X 365 days = 51,614,650 gallons of potable water per year). As discussed above, the existing agricultural operations on-site require approximately 201.6 acre/feet per year, which is more than what the residential development will utilize. Additionally, the proposed land use changes will eliminate the Medium Density Residential and Neighborhood C

[21] Tulare County General Plan 2030 Update. Recirculated Draft Environmental Impact Report. Appendix G - Phase I Water Supply Evaluation for Tulare County. http://generalplan.co.tulare.ca.us/documents/GP/002Board%20of%20Supervisors%20Materials/001BOS%20Agenda%20Items%20-%20Public%20Hearing%20August,%2028%202012/002Attachment%20A.%20FEIR/001Exhibit%201.%20FEIR%20Exec%20Summary%20&%20Chap%201-6/Appendix%20G%20-%20Phase%20I%20Water%20Supply%20Evaluation.pdf. Accessed April 2021.

[22] Tulare County General Plan 2030 Update. Recirculated Draft Environmental Impact Report. Appendix G - Phase I Water Supply Evaluation for Tulare County. Table 2.4. http://generalplan.co.tulare.ca.us/documents/GP/002Board%20of%20Supervisors%20Materials/001BOS%20Agenda%20Items%20-%20Public%20Hearing%20August,%2028%202012/002Attachment%20A.%20FEIR/001Exhibit%201.%20FEIR%20Exec%20Summary%20&%20Chap%201-6/Appendix%20G%20-%20Phase%20I%20Water%20Supply%20Evaluation.pdf. Accessed April 2021.

[23] Porterville 2015 Urban Water Management Plan (October 2017), page 15.

[24] Porterville Housing Element 2015-2023 (Sept 2015), page 30.

Commercial and redesignate the land to Low Density Residential, which will be a less intense use than what was planned for and analyzed in the General Plan EIR. Further, the City engineer has indicated that the City will be able to sufficiently serve water to the proposed Project.[25]

As such, the impact to water supply is determined to be ***less than significant.***

Water Availability

The proposed Project is anticipated to utilize City groundwater to support the residential development. The City has historically used groundwater to meet all of their water demands. Although the City's aquifer is in a state of overdraft, they could still meet their water demands for several more years solely with groundwater.[26] However, the City recognizes that continued overdraft of the City's groundwater is not sustainable. As such, the City has and/or is planning to implement several mechanisms to address this shortfall. These include reliance on surface water, increased groundwater recharge projects, and consolidated water projects. The City's General Plan EIR indicates that by 2030, total water demand by the City will be 30,000 acre-feet per year, which will exceed the groundwater availability. However, as noted previously, actual population growth within the City has not kept up with the population growth projections of the General Plan. Therefore, the actual water use in the City is less than what was projected under the City's General Plan. The Urban Water Management Plan (UWMP) indicates that future demand can be met with continued groundwater pumping, surface water purchases and conservation measures. Additionally, as discussed above, the proposed Project will demand less water than what is currently being utilized to grow orchards. As such, there is ***a less than significant impact*** to this impact area.

Mitigation Measures: None are required.

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

   i. result in substantial erosion or siltation on- or offsite;

   ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

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[25] Michael Knight, City of Porterville Public Works Director, email communication.

[26] Porterville UWMP, page 42. (2010).

iii. <u>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</u>

iv. <u>impede or redirect flood flows?</u>

Less than Significant Impact. The site is presently planted in plum orchards, with a single-family residence on the southern boundary as well as the eastern boundary of the parcel. The site will be designed so that during construction storm water is collected in compliance with Portville City standards. At full buildout, the stormwater will tie into the City's existing storm drain system, which has adequate capacity. The storm water collection system design will be subject to review and approval by the City Public Works Department. Storm water during construction will be managed as part of the Storm Water Pollution Prevention Plan (SWPPP). A copy of the SWPPP is retained on-site during construction.

Impacts regarding the alteration of drainage patterns to increase runoff that will potentially induce flooding have been discussed in the impact analysis for Response IX-c. Storm water during construction will be managed as part of the Storm Water Pollution Prevention Plan (SWPPP). A copy of the SWPPP is retained on-site during construction. All other on-site drainage will be collected and deposited in the City's storm drain system.

Implementation of the proposed Project will not require expansion of the City's existing stormwater system (other than onsite collection system), nor will it result in additional sources of polluted runoff. The Project would not otherwise degrade water quality and therefore the impact is ***less than significant***.

Mitigation Measures: None are required.

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

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

Less than Significant Impact. The Project site is within Zone X, which experiences minimal flood hazards, as indicated by FEMA flood hazard map 06107C1634E, effective 6/16/2009. The site is not within a 100-year flood zone or a 500-year flood zone. The site will be designed for adequate storm drainage.

Flows into the Tule River (located approximately two miles south of the Project site) are controlled by the Success Dam located approximately five miles upstream from the City. A dam failure is usually the result of neglect, poor design, or structural damage caused by a major event such as an earthquake. Dams must be operated and maintained in a safe manner, which is ensured through inspections for safety deficiencies, analyses using current technologies and designs, and taking corrective actions as needed based on current engineering practices.

The Project site is located within the Success Dam inundation area, as shown on Figure 7-3 of the 2030 General Plan. This inundation area runs through Porterville, to a location downstream of Corcoran, a distance of approximately 44 miles. The Army Corp Of Engineers (ACOE) is in the process of completing an environmental impact statement for reinforcing the strength of the dam in the event of seismically induced failure. The Project site is within the 0.5-hour to 1-hour inundation zone of Success Dam. In the event of a dam failure, most of the City would be flooded within one hour.

There are no inland water bodies that could be potentially susceptible to a seiche in the Project vicinity. This precludes the possibility of a seiche inundating the Project site. The Project site is more than 100 miles from the Pacific Ocean, a condition that precludes the possibility of inundation by tsunami. There are no steep slopes that would be susceptible to a mudflow in the Project vicinity, nor are there any volcanically active features that could produce a mudflow in the City of Porterville. This precludes the possibility of a mudflow inundating the Project site.

The Porterville Emergency Operations Plan (EOP), adopted in 2004, includes planning and response scenarios for seismic hazards, extreme weather conditions, landslides, dam failure and other flooding. The City has designated several evacuation routes through Porterville to be used in case of catastrophic emergencies. In the unlikely event that the dam fails before the ACOE's proposed dam reinforcement completion date of 2014–2015, the dam owner would follow the emergency action plan (EAP) developed for Success Dam. The EAP includes a notification flowchart, early detection systems, notification for warning and evacuation by state and local emergency management officials, steps to moderate or alleviate the effects of a dam failure, and inundation maps. As such, impacts related to exposure of people or structures to a risk of loss, injury, or death involving flooding as a result of the failure of a levee or dam would be ***less than significant***.

Mitigation Measures: None are required.

XI. LAND USE AND PLANNING **Would the project:**	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	☐	☒
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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

Environmental Setting

The proposed Project site is located in the northern part of the City of Porterville and is currently planted with plum orchards. The Project site is bounded to the west by N. Westwood Street, to the south by W. Westfield Avenue, and to the east by N. Lombardi Street. Residential subdivisions lie to the west, east, and south. Summit Charter Academy, Lombardi Campus lies directly north, with a diagonal of the Friant-Kern Canal along the northwest corner. The Project consists of an Annexation and Rezone to allow the construction of up to 233 single-family residences on approximately 56 acres.

The site is currently prezoned RS-1 (Very Low Density Residential) General Plan Designation, land use and zoning surrounding the site are identified in Table 4.

Table 4
Existing Land Use, General Plan Designation and Zoning

Location	Existing Land Use	Current Zoning Classification	General Plan Designation
North	Summit Charter Academy, Lombardi Campus and a portion of the Friant-Kern Canal.	PS, PK	Public Land, Park Land.

Location	Existing Land Use	Current Zoning Classification	General Plan Designation
South	Residential development and vacant land.	RS-2, RM-2	Low Density and Medium Density Residential.
West	Residential development.	RS-1, RS-2	Low Density Residential.
East	Residential development, vacant land and agriculture.	RS-2	Very Low and Low Density Residential.

Existing land uses in City of Porterville have been organized into generalized categories that are summarized below on Table 5. City of Porterville has a 2030 General Plan planned build-out of approximately 36,341 acres in size, equivalent to approximately 56.6 square-miles.

Table 5
Existing Land Use: City of Porterville Planning Area (2005)[27]

Generalized Land Use Category	Total	Percentage
Agriculture/Rural/Conservation	21,270	59%
Single-Family Residential	4,760	13%
Multi-Family Residential	240	1%
Retail Shopping	80	0%
Commercial	760	2%
Industrial	350	1%
Public/Quasi-Public	2,630	7%
Vacant	3,590	10%
Unclassified (Roads, water, etc.)	2,661	7%
Total Area	36,341	100%

Regulatory Setting

Federal

[27] City of Porterville General Plan, Land Use Element.

Federal regulations for land use are not relevant to the proposed Project because it is not a federal undertaking (the proposed Project site is not located on lands administered by a federal agency, and the Project applicant is not requesting federal funding or a federal permit).

State

SB 330 Housing Crisis Act of 2019

On October 9, 2019, Gov. Gavin Newsom signed the Housing Crisis Act of 2019 into law, commonly known as Senate Bill 330 (Chapter 654, Statutes of 2019) to respond to the California housing crisis. Effective January 1, 2020, SB330 aims to increase residential unit development, protect existing housing inventory, and expedite permit processing. This new law makes a number of modifications to existing legislation, such as the Permit Streamlining Act and the Housing Accountability Act and institutes the Housing Crisis Act of 2019. Many of the changes proposed last for a 5-year period and sunset on January 1, 2025. Under this legislation, municipal and county agencies are restricted in ordinances and polices that can be applied to residential development. The revised definition of "Housing Development" now contains residential projects of two or more units, mixed-use projects (with two-thirds of the floor area designated for residential use), transitional, supportive, and emergency housing projects.

RESPONSES

a. Physically divide an established community?

b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The proposed Project is located in the northwestern portion of the City of Porterville, in an area of residential and agricultural land uses. The proposed Project site is currently planted in orchards and has a residential home on the southern and eastern boundaries of the parcel.

The Project includes up to 233 single-family residential units on approximately 56 acres of land. The Project has no characteristics that would physically divide the City of Porterville. Access to the existing surrounding areas will be improved with Project implementation.

The site is currently zoned AE-20 by Tulare County however it is within the Porterville Urban Development Boundary and prezoned in the City as RS-1 and designated by the General Plan as Low Density Residential, Medium Density Residential, Parks & Recreation and Neighborhood Commercial. As part of the Project, the site will be zoned Low Density Residential and the General Plan land use changes will eliminate the Medium Density Residential and Neighborhood Commercial and the designation will be amended to Low Density Residential. Project development and subsequent land use and zoning changes will not conflict with any land use plan, policy, regulation adopted for the purpose of avoiding or mitigating and environmental effect.

California Senate Bill 330 Housing Crisis Act of 2019 restricts the adoption of land use or zoning amendment that would result in a net loss in residential capacity. The current project site's general plan land use designation of Low Density Residential with Medium Density Residential, Neighborhood Commercial, and Parks and Recreation provides a residential maximum density of 336 units. The tentative subdivision proposes to amend the existing land uses to be converted to Low Density Residential. This change in zoning designation will increase the max density of the development to 339 Units, resulting in a gross gain in density.

With Project approval, the proposed Project will be consistent with Porterville 2030 General Plan objectives and policies and will not significantly conflict with applicable land use plans, policies or regulations of the City of Porterville.

No impacts would occur as a result of this Project.

Mitigation Measures: None are required.

XII. MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The City of Porterville is situated along the western slope of a northwest-trending belt of rocks comprising the Sierra Nevada and within the southern portion of the Cascade Range. The Sierra Nevada geomorphic province is primarily composed of cretaceous granitic plutons and remnants of Paleozoic and Mesozoic metavolcanic and metasedimentary rocks, and Cenozoic volcan and sedimentary rocks. The majority of the Planning Area has elevations ranging between 400 and 800 feet.

Historically, the quarrying of magnesite was a significant industry in the City of Porterville. Currently, the most economically significant mineral resources in Tulare County are sand, gravel, and crushed stone, used as sources for aggregate (road materials and other construction). The two major sources of aggregate are alluvial deposits (river beds, and floodplains), and hard rock quarries. Consequently, most Tulare County mines are located along rivers at the base of the Sierra foothills.

Tule River contains various State-classified mineral resource zones (MRZ-2a, MRZ-2b, and MRZ-3a). While this area was once suitable for mining operations, it is now surrounded by urban development. Approximately 890 acres along the Tule River, or 2.5 percent of all lands within the Planning Area, are within mineral resource zones. Tule River contains various State-classified mineral resource zones (MRZ-2a, MRZ-2b, and MRZ-3a). While this area was once suitable for mining operations, it is now surrounded by urban development. Approximately 890 acres along the Tule River, or 2.5 percent of all lands within the Planning Area, are within mineral resource zones.

<u>Regulatory Setting</u>

There are no federal, state or local regulations pertaining to mineral resources relevant to the proposed Project.

RESPONSES

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?

No Impact. As shown in Figure 6-3 of the 2030 General Plan, the proposed Project area is not included in a State classified mineral resource zones. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

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

No Impact. As shown in Figure 6-3 of the 2030 General Plan, the proposed Project area is not included in a State classified mineral resource zones. Soil disturbance for the proposed Project would be limited site ground work such as grading, foundations, and installation of infrastructure. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

XIII. NOISE

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

ENVIRONMENTAL SETTING

The Project site is located in the northwestern part of the City of Porterville and is currently planted in orchards, with a single-family residential home along the southern boundary, as well as the eastern boundary of the parcel. The site is located in an established area that provides a mix of land uses, including residential and agricultural.

The primary existing noise sources contributing to ambient noise in the proposed Project area are traffic noises and noises associated with neighborhoods and agriculture.

Regulatory Setting

Federal

The Federal Railway Administration (FRA) and the Federal Transit Administration (FTA) have published guidance relative to vibration impacts. According to the FRA, fragile buildings can be exposed to ground-borne vibration levels of 0.5 PPV without experiencing structural damage[32]. The FTA has identified the human annoyance response to vibration levels as 80 RMS.

State

The State Building Code, Title 24, Part 2 of the State of California Code of Regulations establishes uniform minimum noise insulation performance standards to protect persons within new buildings which house people, including hotels, motels, dormitories, apartment houses and dwellings other than single-family dwellings. Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dB L_{dn} or CNEL in any habitable room.

Title 24 also mandates that for structures containing noise-sensitive uses to be located where the L_{dn} or CNEL exceeds 60 dB, an acoustical analysis must be prepared to identify mechanisms for limiting exterior noise to the prescribed allowable interior levels. If the interior allowable noise levels are met by requiring that windows be kept closed, the design for the structure must also specify a ventilation or air conditioning system to provide a habitable interior environment

Local

Measuring and reporting noise levels involves accounting for variations in sensitivity to noise during the daytime versus nighttime hours. Noise descriptors used for analysis need to factor in human sensitivity to nighttime noise when background noise levels are generally lower than in the daytime and outside noise intrusions are more noticeable. Common descriptors include the Community Noise Equivalent Level (CNEL) and the Day-Night Average Level (Ldn). Both reflect noise exposure over an average day with weighting to reflect the increased sensitivity to noise during the evening and night. The two descriptors are roughly equivalent. The CNEL descriptor is used in relation to major continuous noise sources, such as aircraft or traffic, and is the reference level for the Noise Element under State planning law. The Noise Element included in the 2030 City of Porterville General Plan (2008) includes noise and land use compatibility standards for various land uses. These are shown in Table 6 below.

Table 6
Land Use Compatibility for Community Noise Environment

Land Use Category	**Community Noise Exposure, L_{dn} or CNEL dB**			
	Normally Acceptable	**Conditionally Acceptable**	**Normally Unaccept able**	**Clearly Unacceptable**
Residential – Low density single family, duplex,	<65 (<45 Interior)	65 to 70	70 to 75	>75 (>45 Interior)

Land Use Category	Community Noise Exposure, Ldn or CNEL dB			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential – Multiple family	<65 (<45 Interior)	65 to 70	70 to 75	>75 (>45 Interior)
Schools, libraries, churches, hospitals, nursing	<70	60 to 75	70 to 80	>80
Industrial, manufacturing, utilities, agriculture	<75	70 to 80	75 to 85	No levels identified

Normally acceptable – Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
Conditionally acceptable – New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
Normally unacceptable – New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
Clearly unacceptable – New construction or development should generally not be undertaken.

Porterville General Plan Policies

- N-G-1: Minimize vehicular and stationary noise levels and noise from temporary activities.
- N-G-2: Ensure that new development is compatible with the noise environment.
- N-G-5: Reduce noise intrusion generated by miscellaneous noise sources through conditions of approval to control noise-generating activities.
- N-I-7: Require noise from existing mechanical equipment to be reduced by soundproofing materials and sound-deadening installation.

RESPONSES

a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

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

Less than Significant Impact. According to the City's General Plan EIR, the major noise sources in Porterville are related to roadways and vehicle traffic. As shown in Figure 9-2 of the City's General Plan Noise Element, the Project site's western boundary is exposed to the 55dB and 60 dB CNEL noise contours, located along N. Westwood Street. Design features will be incorporated into the site plan to mitigate noise exposure to residences.

The site itself is located in an urban area adjacent to roadways that are potentially heavily travelled, particularly N. Westwood Street. Noise from the proposed Project will be similar to existing conditions and will generally include noise from vehicles, air conditioner units and other similar equipment. It is not expected that the proposed Project will result in a discernable increase in noise to surrounding land uses.

Proposed Project construction related activities will involve temporary noise sources. Typical construction related equipment include graders, trenchers, small tractors and excavators. During the proposed Project construction, noise from construction related activities will contribute to the noise environment in the immediate vicinity; however, the City of Porterville noise ordinance includes limiting construction activities to daytime hours and not allowing construction on certain holidays. The ordinance also restricts construction delivery trucks to daylight hours to avoid noise-sensitive hours of the day.

Activities involved in construction will generate maximum noise levels, as indicated in Table 7, ranging from 79 to 91 dBA at a distance of 50 feet, without feasible noise control (e.g., mufflers) and ranging from 75 to 80 dBA at a distance of 50 feet, with feasible noise controls.

Table 7
Typical Construction Noise Levels

Type of Equipment	dBA at 50 ft	
	Without Feasible Noise Control	With Feasible Noise
Dozer or Tractor	80	75
Excavator	88	80
Scraper	88	80
Front End Loader	79	75
Backhoe	85	75
Grader	85	75
Truck	91	75

The City of Porterville's General Plan Noise Element (2008) sets the standard noise threshold of 60 dBA at the exterior of nearby residences; however, it does not identify a short-term, construction-noise-level threshold. The distinction between short-term construction noise impacts and long-term operational noise impacts is a typical one in both CEQA documents and local noise ordinances, which generally recognize the reality that short-term noise from construction is inevitable and cannot be mitigated beyond a certain level. Thus, local agencies frequently tolerate short-term noise at levels that they would not accept for permanent noise sources. A more severe approach would be impractical and might preclude the kind of construction activities that are to be expected from time to time in urban environments. Most residents of urban areas recognize this reality and expect to hear construction activities on occasion.

Typical outdoor sources of perceptible ground borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. Construction vibrations can be transient, random, or continuous. Construction associated with the proposed Project includes the construction of residences and roadways.

The approximate threshold of vibration perception is 65 VdB, while 85 VdB is the vibration acceptable only if there are an infrequent number of events per day. Table 8 describes the typical construction equipment vibration levels.

Table 8
Typical Construction Vibration Levels

Equipment	VdB at 25 ft
Small Bulldozer	58
Jackhammer	79

Vibration from construction activities will be temporary and not exceed the FTA threshold for the nearest residences, which are located approximately 50 feet from the development.

Impacts are ***less than significant***.

Mitigation Measures:

None are required.

c. <u>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?</u>

No Impact. The Project is not located within the Porterville Municipal Airport's projected airport influence area. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

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

ENVIRONMENTAL SETTING

According to the Porterville 2030 General Plan, over the past 30 years, the City of Porterville's population has grown at an average annual rate of 3.7 percent. However, the City's population growth slowed to an average annual rate of 2.8 percent over the most recent 15 years. In 2006, the California Department of Finance (DOF) estimated the City with a population of 45,220 residents. In 2010, the City had an estimated population of 54,165 residents. In 2011 the City grew to 54,676 residents, while the City recorded an approximate population of 55,490 in 2012. According to the most recent California DOF report[28], the City currently is at approximately 59,571 residents, a 7.35 percent increase from 2012. Build-out of the 2030 General Plan will accommodate a population of approximately 107,300 in Porterville, which represents an annual population growth rate of 3.7 percent.

Regulatory Setting

Federal

The U.S. Department of Housing and Urban Development's (HUD) mission is to create strong, sustainable, inclusive communities and quality affordable homes for all. HUD is working to strengthen the housing market to bolster the economy and protect consumers; meet the need for quality affordable

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[28] State of California Department of Finance. E-1 Population Estimates for Cities, Counties, and the State – January 1, 2020 and 2021. https://www.dof.ca.gov/forecasting/demographics/estimates/e-1/. Accessed May 2021.

rental homes: utilize housing as a platform for improving quality of life; build inclusive and sustainable communities free from discrimination; and transform the way HUD does business.[29]

State

The California Department of Housing and Community Development (HCD's) mission is to "[p]rovide leadership, policies and programs to preserve and expand safe and affordable housing opportunities and promote strong communities for all Californians."[30] "In 1977, the State Department of Housing and Community Development (HCD) adopted regulations under the California Administrative Code, known as the Housing Element Guidelines, which are to be followed by local governments in the preparation of local housing elements. AB 2853, enacted in 1980, further codified housing element requirements. Since that time, new amendments to State Housing Law have been enacted.

State Housing Law also mandates that local governments identify existing and future housing needs in a Regional Housing Needs Assessment (RHNA).

Local

City of Porterville Housing Element. California Housing Element law requires every jurisdiction to prepare and adopt a housing element as part of a City's General Plan.

State Housing Element requirements are framed in the California Government Code, Sections 65580 through 65589, Chapter 1143, Article 10.6. The law requires the State Department of Housing and Community Development (HCD) to administer the law by reviewing housing elements for compliance with State law and by reporting its written findings to the local jurisdiction. Although State law allows local governments to decide when to update their general plans, State Housing Element law mandates that housing elements be updated every eight years. The City's Housing Element was adopted in December of 2015, and contains information on housing needs, land inventory, constraints, and a program of action.

RESPONSES

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[29] U.S. Department of Housing and Urban Development, Mission, http://portal.hud.gov/hudportal/HUD?src=/about/mission. Accessed May 2021.

[30] California Department of Housing and Community Development, Mission, http://www.hcd.ca.gov/mission.html. Accessed May 2021.

a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less than Significant Impact. The proposed Project would include the construction of up to 233 single-family residences and internal access roads, which would result in approximately 790 additional residents based on the estimated 3.39 persons per household for the City of Porterville, which would increase the City's population by approximately 1.5% at full buildout. The site is within the Porterville Planning Area of the General Plan and as such, residential site development is expected and has been planned for. Impacts are ***less than significant***.

Mitigation Measures: None are required.

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

Less than Significant. There are two residential structures currently on-site; however, they will both remain after Project buildout. No houses will be displaced and as such, there will be ***no impact***.

Mitigation Measures: None are required.

XV. PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The proposed Project site is in an area already served by public service systems. The nearest fire station is Porterville Fire Station 2, which is located at the Public Works complex, approximately 1.4 miles southeast of the proposed Project site. The physical address of the fire station is 500 North Newcomb Street. The Porterville Police Department is located approximately 3.0 miles southeast of the proposed Project site at 350 North D Street.

The Teapot Dome Landfill plant is approximately five miles southwest of the City limits, while the Porterville Wastewater Treatment Plant is located approximately 1.4 miles southeast of the site. Summit Charter Academy, Lombardi Campus abuts the Project site to the north, William R. Buckley Elementary School is 0.3 miles southwest, Burton Middle School is one-half mile southwest, and Oak Grove Elementary School is 0.6 miles southeast of the Project site.

Regulatory Setting

Federal

National Fire Protection Association

The National Fire Protection Association (NFPA) is an international nonprofit organization that provides consensus codes and standards, research, training, and education on fire prevention and public safety. The NFPA develops, publishes, and disseminates more than 300 such codes and standards intended to minimize the possibility and effects of fire and other risks. The NFPA publishes the NFPA 1, Uniform Fire Code, which provides requirements to establish a reasonable level of fire safety and property protection in new and existing buildings.

State

California Fire Code and Building Code

The 2007 California Fire Code (Title 24, Part 9 of the California Code of Regulations) establishes regulations to safeguard against hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety and assistance to fire fighters and emergency responders during emergency operations. The provision of the Fire Code includes regulations regarding fire-resistance rated construction, fire protection systems such as alarm and sprinkler systems, fire service features such as fire apparatus access roads, fire safety during construction and demolition, and wildland urban interface areas.

In addition, the proposed Project is being evaluated pursuant to CEQA.

Local

Porterville General Plan Policies

- PHS-I-28: Ensure that new development incorporates safety concerns into the site, circulation, building design and landscaping plans.

RESPONSES

a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?

Less than Significant Impact. The proposed Project site will continue to be served by City of Porterville Fire Station No. 2, which is approximately 1.4 miles southeast of the proposed Project site. The Project applicant would be required to submit plans to the City Fire Department for review and approval prior to the issuance of building permits to ensure the Project would conform to applicable building codes and would provide an on-site fire hydrant system in the event of an on-site fire. The Project would also include local roads that would provide access to emergency vehicles in the event of a fire and would connect to the larger circulation system to ensure adequate provision of emergency access to the Project site. As such, any impacts would be less ***than significant***.

Police Protection?

Less than Significant Impact. The proposed Project includes the construction of 233 single-family residential units and a neighborhood park, which will accommodate approximately 790 persons. Protection services would be provided to the Project site from the existing Porterville Police Department, approximately three miles to the southeast of the site. As the Project site is located in an area currently served by the Police Department and the site has been designated for urban use by the General Plan, the department would not need to expand its existing service area or construct a new facility to serve the Project site. The impact is ***less than significant.***

Schools?

Less than Significant Impact. The proposed Project site is located within the Burton School District. The Project site is not within any elementary or middle school boundaries, but is within the Monache High School Boundary. Based on school district generation rates for new housing units (0.4 elementary, 0.1 middle school and 0.2 high school students per residential unit[31]), the proposed Project would generate approximately 104 elementary school students, 26 middle school students and 52 high school students. Pursuant to California Education Code Section 17620(a)(1), the governing board of any school district is authorized to levy a fee, charge, dedication, or other requirement against any construction within the boundaries of the district for the purpose of funding the construction or reconstruction of school facilities. The Project applicant would be required to pay such fees to reduce any impacts of new residential development of school services. Payment of the developer fees will offset the addition of school-age children within the district. As such, any impacts would be ***less than significant.***

Parks?

[31] Porterville 2030 General Plan EIR. SCH 2006011033. Page 234.

Less than Significant Impact. The nearest City park to the proposed Project site is Veterans Park, approximately 1.1 miles southeast on N. Newcomb Street and W. Henderson Avenue. Additionally, the tentative subdivision map includes a neighborhood park in the center of the new development, which would be approximately 152,214 square feet (3.49 acres) in size.

To ensure sufficient recreational opportunities, the City has established a Park Impact Fee, implemented by Chapter 19, Parks, Article III, Park Impact Fee, of the Municipal Code. The Municipal Code states that parks must be constructed or expanded commensurate with growth of the City. The developer will receive a credit against their park fees as a result of the City requirement to include a park in the residential development. Additionally, the Project applicant would be required to comply with Article III of the Municipal Code. As such, any impacts would remain ***less than significant.***

Other public facilities?

Less than Significant Impact. The proposed Project is within the Planning Area identified in the City's General Plan. As such, the Project would not result in increased demand on other public facilities such as library services that has not already been planned for. Any impacts would be ***less than significant***.

Mitigation Measures: None are required.

XVI. RECREATION

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
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?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The City of Porterville provides its residents several types of parks and recreational facilities. Parks are defined as land owned or leased by the City and used for public recreational purposes. The City classifies parks and recreational facilities in five categories: Pocket Parks, Neighborhood Parks, Community Parks, Specialized Recreation, and Trail/Parkways. Currently, the City of Porterville has 15 parks for a total of approximately 291 acres of parkland.

These facilities range in size from the 0.1-acre North Park pocket park up to the 95-acre Sports Complex facility. With a 2021 population of 59,571 residents[32], the City has a ratio of 4.9 acres of parkland per 1,000 residents. The park ratio is based on Neighborhood Parks, Community Parks, and Specialized Recreation areas only. Trails, Community Facilities and Pocket Parks do not contribute to the ratio.

Regulatory Setting

The proposed Project is being evaluated pursuant to CEQA; however, there are no additional federal, state or local regulations, plans, programs, and guidelines associated with recreation that are applicable to the proposed Project.

[32] State of California Department of Finance. E-1 Population Estimates for Cities, Counties, and the State – January 1, 2020 and 2021. https://www.dof.ca.gov/forecasting/demographics/estimates/e-1/. Accessed May 2021.

RESPONSES

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?

Less than Significant Impact. As described in Impact XIV(a), the City has established a Park Impact Fee through the Municipal Code, which states that parks must be constructed or expanded commensurate with growth of the City. The City requires the applicant to pay a Park Impact Fee, dedicate land for open space, or a combination of both. The applicant intends to construct a 152,214 square foot (3.49 acre) park in the center of the residential development. As such, any impacts will be ***less than significant***.

Mitigation Measures: None are required.

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?

Less than Significant Impact. As stated previously, the proposed Project includes the construction of recreation facilities (a community park) in the site development plan. The developer will receive a credit against their park fees as a result of the City requirement to include a park in the residential development. As such, the payment of a Park Impact Fee as directed by the Municipal Code is likely not required. ***Less than significant impacts*** would occur.

Mitigation Measures: None are required.

XVII. TRANSPORTATION/TRAFFIC

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

ENVIRONMENTAL SETTING

The proposed development is located on APN 245-010-087 and is bounded to the east by Westwood Street, to the west by Lombardi Street and to the south by Westfield Avenue. Residential subdivisions lie to the west, east, and south. Summit Charter Academy, Lombardi Campus lies directly north, with a diagonal of the Friant-Kern Canal along the northwest corner. Porterville is bisected north-south by State Route (SR) 65 and SR 190 runs east-west in the southern portion of the City.

The nearest airport to the proposed Project site is the Porterville Municipal Airport, which is located approximately four miles south of the site.

Regulatory Setting

Federal

<u>Federal Transit Administration.</u>

The Federal Transit Administration (FTA) is an authority that provides financial and technical assistance to local public transit systems, including buses, subways, light rail, commuter rail, trolleys, and ferries.

The FTA is funded by Title 49 of the United States Code, which states the FTA's interest in fostering the development and revitalization of public transportation.

Americans with Disabilities Act of 1990.

Titles I, II, III, IV, and V of the ADA have been codified in Title 42 of the United States Code, beginning at Section 12101. Title III prohibits discrimination on the basis of disability in "places of public accommodation" (businesses and nonprofit agencies that serve the public) and "commercial facilities" (other businesses). The regulation includes Standards for Accessible Design, which establish minimum standards for ensuring accessibility when designing and constructing a new facility or altering an existing facility.*State*

Senate Bill (SB) 743.

On September 27, 2013, Governor Jerry Brown signed SB 743 into law and codified a process that changed transportation impact analysis as part of CEQA compliance. SB 743 directs the California Office of Planning and Research (OPR) to administer new CEQA guidance for jurisdictions that removes automobile vehicle delay and LOS or other similar measures of vehicular capacity or traffic congestions from CEQA transportation analysis. Rather, it requires the analysis of VMT or other measures that "promote the reduction of greenhouse gas emissions, the development of multi-modal transportation networks, and a diversity of land uses," to be used as a basis for determining significant impacts to circulation in California. The goal of SB 743 is to appropriately balance the needs of congestion management with statewide goals related to reducing GHG emissions, encourage infill development, and promote public health through active transportation.

Local

The City of Porterville and the Tulare County Regional Transportation Plan designate level of service "D" as the minimum acceptable intersection peak hour level of service standard.

Porterville General Plan Policies

- C-G-6: Maintain acceptable levels of service and ensure that future development and the circulation system are in balance.
- C-G-7: Ensure that new development pays its fair share of the costs of transportation facilities.
- C-I-12: Continue to require that new development pay a fair share of the costs of street and other traffic and local transportation improvements based on traffic generated and impacts on traffic service levels.

RESPONSES

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

b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Potentially Significant Impact. Project related traffic generation could potentially have significant impacts to local and regional transportation systems. Additionally, VMT generation could potentially conflict with CEQA Guidelines section 15064.3 and as such, these impact areas will be analyzed in the forthcoming EIR.

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

d. Result in inadequate emergency access?

Less than Significant Impact. No roadway design features associated with this proposed Project would result in an increase in hazards due to a design feature or be an incompatible use. There are five points of ingress/egress to the proposed Project site and each of these points will be sized appropriately for emergency vehicles. As such, the proposed Project has been appropriately designed for emergency access. Any impacts would be considered ***less than significant.***

Mitigation Measures: None are required.

XVIII. TRIBAL CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☒	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of the Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

ENVIRONMENTAL SETTING

Federal

The National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA) established federal regulations for the purpose of protecting significant cultural resources. The legislation established the National Register of Historic Places and the National Historic Landmarks Program. It mandated the establishment of the Office of Historic Preservation, responsible for implementing statewide historic preservation programs in each state.

State

California State Office of Historic Preservation (OHP)

The California State Office of Historic Preservation (OHP) is responsible for administering federally and state mandated historic preservation programs to further the identification, evaluation, registration and protection of California's irreplaceable archaeological and historical resources under the direction of the State Historic Preservation Officer (SHPO), appointed by the governor, and the State Historical Resources Commission, a nine-member state review board appointed by the governor.

Among OHP's responsibilities are identifying, evaluating, and registering historic properties; and ensuring compliance with federal and state regulations. The OHP administers the State Register of Historical Resources and maintains the California Historical Resources Information System (CHRIS) database. The CHRIS database includes statewide Historical Resources Inventory (HRI) database. The records are maintained and managed under contract by eleven independent regional Information Centers. Tulare, Fresno, Kern, Kings and Madera counties are served by the Southern San Joaquin Valley Information Center (Center), located in Bakersfield, CA. The Center provides information on known historic and cultural resources to governments, institutions and individuals.[33]

A historical resource may be eligible for inclusion in the California Register of Historical Resources (CRHR) if it:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important to our past;

[33] California Office of Historic Preservation, Mission and Responsibilities, http://ohp.parks.ca.gov/?page_id=1066, Accessed April 2021.

- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history.[34]

Tribal Consultation Requirements: SB 18 (Burton, 2004) [35]

On September 29, 2004, Governor Schwarzenegger signed Senate Bill 18, Tribal Consultation Guidelines, into law. This bill amended Section 815.3 of the Civil Code, to amend Sections 65040.2, 65092, 65351, 65352, and 65560 of, and to add Sections 65352.3, 65352.4, and 65562.2 to, the Government Code, relating to traditional tribal cultural Places. SB 18, enacted March 1, 2005, creates a mechanism for California Native American Tribes to identify culturally significant sites that are located within public or private lands within the city or county's jurisdiction. SB 18 requires cities and counties to contact, and offer to consult with, California Native American Tribes before adopting or amending a General Plan, a Specific Plan, or when designating land as Open Space, for the purpose of protecting Native American Cultural Places (PRC 5097.9 and 5097.993). The Native American Heritage Commission (NAHC) provides local governments with a consultation list of tribal governments with traditional lands or cultural places located within the Project Area of Potential Effect. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the tribe.

Tribal Consultation Requirements: AB 52 (Gatto, 2014)[36]

This bill was approved by Governor Brown on September 25, 2014 and became effective July 1, 2015. This bill amended Section 5097.94 of, and to add Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to, the Public Resources Code, relating to Native Americans. The bill specifies that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource, as defined, is a project that may have a significant effect on the environment. This bill requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated (can be a tribe anywhere within the State of California) with the geographic area of the proposed project, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project.

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[34] California Office of Historic Preservation, California Register of Historical Resources: Criteria for Designation. https://ohp.parks.ca.gov/?page_id=21238. Accessed April 2021.
[35] Senate Bill No. 18, Chapter 905. https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200320040SB18. Accessed April 2021.
[36] Assembly Bill No. 52, Chapter 532. http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB52, Accessed April 2021.

Existing law establishes the Native American Heritage Commission (NAHC) and vests the commission with specified powers and duties. This bill required the NAHC to provide each California Native American tribe, as defined, on or before July 1, 2016, with a list of all public agencies that may be a lead agency within the geographic area in which the tribe is traditionally and culturally affiliated, the contact information of those agencies, and information on how the tribe may request those public agencies to notify the tribe of projects within the jurisdiction of those public agencies for the purposes of requesting consultation.

The NAHC provides protection to Native American burials from vandalism and inadvertent destruction, provides a procedure for the notification of most likely descendants regarding the discovery of Native American human remains and associated grave goods, brings legal action to prevent severe and irreparable damage to sacred shrines, ceremonial sites, sanctified cemeteries and place of worship on public property, and maintains an inventory of sacred places.[37]

The NAHC performs a Sacred Lands File search for sites located on or near the Project site upon request. The NAHC also provides local governments with a consultation list of tribal governments with traditional lands or cultural places located within the Project Area of Potential Effect. The City sent letters to the tribal governments listed by the NAHC on April 29, 2021 as required by AB 52.

Local

Porterville General Plan Policies

- OSC-I-72: Develop an agreement with Native American representatives for consultation in the cases where new development may result in disturbance to Native American sites.

RESPONSES

a-i, a-ii. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k) or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of the

[37] Native American Heritage Commission, About the Native American Heritage Commission http://nahc.ca.gov/about/. Accessed April 2021.

Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less than Significant Impact. A Tribal Cultural Resource (TCR) is defined under Public Resources Code section 21074 as a site, feature, place, cultural landscape that is geographically defined in terms of size and scope, sacred place, and object with cultural value to a California Native American tribe that are either included and that is listed or eligible for inclusion in the California Register of Historic Resources or in a local register of historical resources, or if the City of Porterville, acting as the Lead Agency, supported by substantial evidence, chooses at its discretion to treat the resource as a TCR. As discussed above, under Section V, Cultural Resources, criteria (b) and (d), no known archeological resources, ethnographic sites or Native American remains are located on the proposed Project site. As discussed under criterion (b) implementation of Mitigation Measure CULT-1 would reduce impacts to unknown archaeological deposits, including TCRs, to a less than significant level. As discussed under criterion (d), compliance with California Health and Safety Code Section 7050.5 would reduce the likelihood of disturbing or discovering human remains, including those of Native Americans. Any impacts to TCR would be considered ***less than significant***.

Mitigation Measures: No additional measures are required.

XIX. UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

Utilities required to serve the proposed Project would include: water, sanitary sewer, storm drainage, electricity, and telecommunications infrastructure. Water service, sewage disposal and refuse collection would be provided by the City of Porterville.

Regulatory Setting

State

State Water Resources Control Board (SWRCB)

Waste Discharge Requirements Program. State regulations pertaining to the treatment, storage, processing, or disposal of solid waste are found in Title 27, CCR, Section 20005 et seq. (hereafter Title 27). In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 2744. Several SWRCB programs are administered under the WDR Program, including the Sanitary Sewer Order and recycled water programs.

National Pollutant Discharge Elimination System (NPDES) Permit

As authorized by the Clean Water Act (CWA), the National Pollutant Discharge Elimination System (NDPES) Permit Program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. In California, it is the responsibility of Regional Water Quality Control Boards (RWQCB) to preserve and enhance the quality of the state's waters through the development of water quality control plans and the issuance of waste discharge requirements (WDRs). WDRs for discharges to surface waters also serve as NPDES permits. Tulare County is within the Central Valley RWQCB's jurisdiction.

In addition, the proposed Project is being evaluated pursuant to CEQA.

Local

- **Porterville General Plan Policies**OSC-I-44: Work with the Regional Water Quality Control Board to ensure that all point source pollutants are adequately mitigated (as part of the CEQA review and project approval process) and monitored to ensure long-term compliance.

- OSC-I-51: Prior to the approval of individual projects, require the City Engineer and/or Building Official to verify that the provisions of applicable point source pollution programs have been satisfied.

RESPONSES

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

Less than Significant Impact. Implementation of the proposed Project would include up to 233 single-family residential units on the Project site. The Project site is located within the service territory of the Porterville Wastewater Treatment Facility (WWTF). Since the WWTF is considered a publicly owned treatment works, operational discharge flows treated at the WWTF would be required to comply with applicable water discharge requirements issued by the Central Valley Regional Water Quality Control Board (RWQCB). Compliance with conditions or permit requirements established by the City as well as water discharge requirements outlined by the Central Valley RWQCB would ensure that wastewater discharges coming from the proposed Project site and treated by the WWTF system would not exceed applicable Central Valley RWQCB wastewater treatment requirements.

As discussed in Section X, Hydrology and Water Quality, with an increase in the area of impervious surfaces on the Project site, an increase in the amount of storm water runoff is anticipated. The site will be designed so that storm water is collected and deposited in the City's existing storm drain system. The storm water collection system design will be subject to review and approval by the City Public Works Department. Storm water during construction will be managed as part of the Storm Water Pollution Prevention Plan (SWPPP). A copy of the SWPPP is retained on-site during construction. Thus, the proposed Project would have a ***less than significant impact.***

Mitigation Measures: None are required.

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

Less than Significant Impact. See Section X – Hydrology for a full discussion pertaining to available water supply. The site is designated and zoned for urban development and has been accounted for in the General Plan and other infrastructure planning documents. The site land use designation is currently Medium Density Residential and Neighborhood Commercial. As a part of the Project, land use will be redesignated as Low Density Residential, which is a less intensive use than what was analyzed in the General Plan EIR.

The City will have sufficient supply to serve the proposed Project and as such, the proposed Project will have a ***less than significant impact.***

Mitigation Measures: None are required.

c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. As discussed in Section XVIII(a), implementation of the proposed Project would result in the need for additional wastewater treatment service; however, the proposed development was accounted for in the General Plan and the land use changes proposed as a part of the project will result in a less intensive use than what was planned. In addition, as acknowledged in the General Plan, the City will begin planning for additional WWTF capacity to accommodate growth and development allowed under the General Plan when the influent flow reaches 6.4 million gallons per day (MGD). Currently, flows average 4.5 MGD.[38] Additionally, the proposed Project applicant would be required to comply with any applicable City and WWTF regulations and would be subject to applicable development impact fees and wastewater connection charges. Therefore, with compliance to applicable standards and payment of required fees and connection charges, the Project would not result in a significant impact related to construction or expansions of existing wastewater treatment facilities.

Mitigation Measures: None are required.

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

Less than Significant Impact. Disposal services in the City are provided by the City of Porterville. As of 2004, the City's solid waste was disposed at Teapot Dome landfill, located approximately five miles southwest of the City limits. Teapot Dome is a County-operated Class III landfill permitted to discharge up to 300 tons per day. As of 2004, the landfill was at 84.7 percent capacity with a remaining capacity of

[38] Michael Knight, City of Porterville Public Works Director, email communication.

998,468 cubic yards. According to the City's General Plan, once Teapot Dome landfill reaches capacity, the City anticipates using its transfer facility to divert waste to the Visalia landfill.

The Visalia Disposal Site, located approximately 35 miles northwest of the City limits, is a County-operated Class III landfill permitted to discharge up to 2,000 tons a day. As of 2017, there was approximately 18,000,000 cubic yards of capacity with an expected closure date of 2049.[39] The estimated closure date is considered to be worst case scenario, where diversion goals are not met.

Pena Disposal accepts all the recyclables for the City. This processing and transfer facility is approximately 35 miles from City limits and is permitted for unlimited recycling, 2,000 tons per day of mixed solid waste, 100 tons per day of yard waste and 175 tons per day of construction and demolition waste. Most household hazardous wastes, including e-waste, must be taken to various sites in Visalia, except on the biannual clean-up days when the County sets up a drop-off site in Porterville.

According to the General Plan, solid waste generation rates in Porterville are approximately 2.0 pounds per day per resident. Therefore, the proposed Project would include the development of 233 residential units resulting in a population increase of approximately 790 persons, generating approximately 1,580 pounds per day of solid waste.

Implementation of the proposed Project would result in an increase in solid waste disposal needs; however, this increase would be minimal and, as indicated in the General Plan, the County anticipates the available landfill capacity will be sufficient through 2030. The proposed Project would result in ***less than significant*** impacts to solid waste and landfill facilities.

Mitigation Measures: None are required.

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

Less than Significant Impact. See Response f, above. The proposed Project would be required to comply with all federal, State, and local regulations related to solid waste. Furthermore, the proposed Project would be required to comply with all standards related to solid waste diversion, reduction, and recycling during Project construction and operation. The proposed Project will comply with all federal, state and local statutes and regulations related to solid waste. As such, any impacts would be ***less than significant.***

[39] Jonah Trevino, Environmental Coordinator for Tulare County Solid Waste Department. Personal communication on 6/24/2021.

Mitigation Measures: None are required.

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

ENVIRONMENTAL SETTING

Human activities such as smoking, debris burning, and equipment operation are the major causes of wildland fires. Within Tulare County, over 1,029,130 acres (33% of the total area) are classified as "Very High" fire threat and approximately 454,680 acres (15% of the total area) are classified as "High" fire threat. The portion of the county that transitions from the valley floor into the foothills and mountains is characterized by high to very high threat of wildland fires.[40] The majority of the Porterville is developed into urban uses or in active agriculture, severely reducing the risk of wildland fire. According to the

[40] Tulare County General Plan Background Report. February 2010. Page 8-21.

Tulare County Background Report Figure 8-2, the majority of the City has no threat of wildfire. The proposed Project site is relatively flat in an area actively utilized with primarily residential and agricultural uses.

RESPONSES

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

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

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

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

Less Than Significant Impact. The proposed Project is located in an area developed with residential and agricultural uses, which precludes the risk of wildfire. The area is flat in nature which would limit the risk of downslope flooding and landslides, and limit any wildfire spread.

To receive building permits, the proposed Project would be required to be in compliance with the adopted emergency response plan. As such, any wildfire risk to the project structures or people would be ***less than significant.***

Mitigation Measures: None are required.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐
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)?	☒	☐	☐	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

RESPONSES

a. <u>Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict</u>

the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Potentially Significant Impact. The analyses of environmental issues contained in this Initial Study indicate that the proposed Project may have substantial impact on the environment or on any resources identified in the Initial Study. Mitigation measures have been incorporated in the project design, however some impacts remain ***potentially significant***. Therefore, an EIR will be prepared for those impact areas.

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)?

Potentially Significant Impact. CEQA Guidelines Section 15064(i) states that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. The proposed Project may contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., increase in population could lead to an increase need for housing, increase in traffic, air pollutants, etc). Mitigation measures have been incorporated in the project design, however some impacts remain ***potentially significant***. Therefore, an EIR will be prepared for those impact areas.

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

Potentially Significant Impact. The analyses of environmental issues contained in this Initial Study indicate that the project may have substantial impact on human beings, either directly or indirectly. Mitigation measures have been incorporated in the project design, however some impacts remain ***potentially significant***. Therefore, an EIR will be prepared for those impact areas

LIST OF PREPARERS

Crawford & Bowen Planning, Inc.

- Emily Bowen, LEED AP, Principal Environmental Planner
- Travis Crawford, AICP, Principal Environmental Planner
- Caroline Gibbons, Assistant Planner

Persons and Agencies Consulted

City of Porterville

- Troy Andres, Assistant Planner
- Jeff O'Neal, Contract City Planner
- Julie Phillips, Community Developer Manager
- Jason Ridenour, Acting Community Development Director

California Historic Resources Information System

- Celeste Thomson, Coordinator

Appendix A

CHRIS Search Results

California
Historical
Resources
Information
System

Fresno
Kern
Kings
Madera
Tulare

Southern San Joaquin Valley Information Center
California State University, Bakersfield
Mail Stop: 72 DOB
9001 Stockdale Highway
Bakersfield, California 93311-1022
(661) 654-2289
E-mail: ssjvic@csub.edu
Website: www.csub.edu/ssjvic

To: Emily Bowen
Crawford Bowen Planning, Inc.
113 N. Church Street, Suite 302
Visalia, CA 93291

Record Search 21-119

Date: April 5, 2021

Re: City of Porterville Lombardi Residential Development Project

County: Tulare

Map(s): Porterville 7.5’

CULTURAL RESOURCES RECORDS SEARCH

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System’s (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP’s regulatory authority under federal and state law.

The following are the results of a search of the cultural resource files at the Southern San Joaquin Valley Information Center. These files include known and recorded cultural resources sites, inventory and excavation reports filed with this office, and resources listed on the National Register of Historic Places, the OHP Built Environment Resources Directory, California State Historical Landmarks, California Register of Historical Resources, California Inventory of Historic Resources, and California Points of Historical Interest. Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the OHP are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area.

PRIOR CULTURAL RESOURCE STUDIES CONDUCTED WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS

According to the information in our files, there have been no previous cultural resource studies conducted within the project area. There have been three cultural resource studies conducted within a one-half mile radius, TU-00102, 00258, and 01467.

KNOWN/RECORDED CULTURAL RESOURCES WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS

There are no recorded resources within the project area, and it is not known if any exist there. There is one recorded resource within the one-half mile radius, P-54-004614, the Friant-Kern Canal.

Resource P-54-004614, the Friant Kern Canal, has been given a National Register Status Code of 2S2, indicating it has been determined eligible for listing in the National Register of Historic Places by a consensus through the Section 106 process. It is listed in the California Register of Historical Resources. There are no other recorded cultural resources within the project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

COMMENTS AND RECOMMENDATIONS

We understand this project consists of a residential development project including the development of 241 single family residential units and a 2-acre park to support the development. Further, we understand the project area is currently used for agricultural purposes. Please note that agriculture does not constitute previous development, as it does not destroy cultural resources, but merely moves them around within the plow zone. Because a cultural resources study has not been conducted on this property, it is unknown if any cultural resources are present. Therefore, prior to ground disturbance activities, we recommend a qualified, professional consult conduct a field survey to determine if any cultural resources are present. A list of qualified consultants can be found at www.chrisinfo.org.

We also recommend that you contact the Native American Heritage Commission in Sacramento. They will provide you with a current list of Native American individuals/organizations that can assist you with information regarding cultural resources that may not be included in the CHRIS Inventory and that may be of concern to the Native groups in the area. The Commission can consult their "Sacred Lands Inventory" file to determine what sacred resources, if any, exist within this project area and the way in which these resources might be managed. Finally, please consult with the lead agency on this project to determine if any other cultural resource investigation is required. If you need any additional information or have any questions or concerns, please contact our office at (661) 654-2289.

By:

Celeste M. Thomson, Coordinator **Date**: April 5, 2021

Please note that invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

NOP Comments Received

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Central Region
1234 East Shaw Avenue
Fresno, California 93710
(559) 243-4005
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

August 23, 2021

Jason Ridenour
City of Porterville
291 N. Main Street
Porterville, California 93257

Subject: Lombardi Development Project
Notice of Preparation (NOP)
SCH No.: 2021070158

Dear Mr. Ridenour:

The California Department of Fish and Wildlife (CDFW) received a NOP for an Environmental Impact Report (EIR) from the City of Porterville, as Lead Agency, for the Project pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1]

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code. While the comment period may have ended, CDFW would appreciate if you will still consider our comments.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id.*, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code will be required.

Nesting Birds: CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs and nests include, sections 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

PROJECT DESCRIPTION SUMMARY

Proponent: San Joaquin Valley Homes

Objective: The Project consists of an Annexation, General Plan Amendment, Rezone, and a Vesting Tentative Subdivision Map to allow for the construction of up to 233 single-family residential units on 56 acres and the annexation of the Summit Charter Academy, Lombardi Campus, totaling approximately 69.65 acres

Location: The Project site is located between N. Westwood Street and N. Lombardi Street, bounded to the south by W. Westfield Avenue, in Porterville.

Timeframe: Unspecified

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the City of Porterville in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the CEQA document.

The Project area is within the geographic range of several special-status animal species. Of particular concern to CDFW are the State threatened Swainson's hawk (*Buteo swainsoni*), and tricolored blackbird (*Agelaius tricolor*), and the Species of Special Concern burrowing owl (*Athene cunicularia*), because potential habitat features exist on or adjacent to the Project site. As such, CDFW requests that the EIR fully identify potential impacts to these species and evaluate if they may be significant. In order to adequately assess any potential impact to biological resources, focused biological surveys conducted by a qualified wildlife biologist during the appropriate survey period(s) may be necessary to determine whether these species or their habitat may be present within the Project area. Information from these surveys may also be necessary to identify any mitigation, minimization, and avoidance measures and/or the need for additional or protocol level surveys, and to identify any Project-related impacts under CESA and other species of concern. CDFW has the following recommendations.

I. Environmental Setting and Related Impact

Would the Project 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 CDFW or the United States Fish and Wildlife Service (USFWS)?

COMMENT 1: Swainson's Hawk (*Buteo swainsoni*; SWHA)

Issue: SWHA have been documented in the Project vicinity (CDFW 2021) and have the potential to occur in the Project area. Landscape trees may also provide suitable nesting habitat. In addition, grassland and agricultural land in the surrounding area provide suitable foraging habitat for SWHA, increasing the likelihood of SWHA occurrence within the vicinity. SWHA have the potential to nest and forage near the Project site. Based on aerial photography, the proposed Project area appears to include large, mature trees that may serve as potential nest sites and ruderal grasslands, fallow fields, and some agricultural crops that occur in the Project vicinity may serve as foraging habitat.

Specific impact: Without appropriate avoidance and minimization measures for SWHA, potential significant impacts that may result from Project activities include: nest abandonment, loss of nest trees, loss of foraging habitat that would reduce nesting success (loss or reduced health or vigor of eggs or young), and direct mortality. All trees, including non-native or ornamental varieties, near the Project site may provide potential nesting sites.

Evidence impact would be significant: SWHA exhibit high nest-site fidelity year after year and lack of suitable nesting habitat in the San Joaquin Valley limits their local distribution and abundance (CDFW 2016). Approval of the Project may lead to subsequent ground-disturbing activities that involve noise, groundwork, construction of structures, and movement of workers that could affect nests and has the potential to result in nest abandonment and loss of foraging habitat, significantly impacting local nesting SWHA.

Recommended Potentially Feasible Mitigation Measure(s)
To evaluate potential impacts to SWHA associated with Project activities, CDFW recommends conducting the following evaluation of Project areas and implementing the following mitigation measures as enforceable conditions in the EIR.

Recommended Mitigation Measure 1: Focused SWHA Surveys

To evaluate potential Project-related impacts, CDFW recommends that a qualified wildlife biologist conduct surveys for nesting SWHA following the entire survey methodology developed by the SWHA Technical Advisory Committee (SWHA TAC 2000) prior to Project implementation within 0.5-mile from the limits of Project-associated disturbance.

Recommended Mitigation Measure 2: SWHA Avoidance

CDFW recommends that if Project-specific activities will take place during the SWHA nesting season (i.e., March 1 through September 15), and active SWHA nests are present, a minimum 0.5-mile no-disturbance buffer be delineated and maintained around each nest, regardless if when it was detected by surveys or incidentally, until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival, to prevent nest abandonment and unauthorized take of SWHA as a result of Project activities.

Recommended Mitigation Measure 3: SWHA Take Authorization

CDFW recommends that in the event an active SWHA nest is detected, and a 0.5-mile no-disturbance buffer is not feasible, consultation with CDFW is warranted to discuss how to implement the project and avoid take. If take cannot be avoided, take authorization through the acquisition of an Incidental Take Permit (ITP), pursuant to Fish and Game Code section 2081 subdivision (b) is necessary to comply with CESA.

Recommended Mitigation Measure 4: SWHA Tree Removal

CDFW recommends that the removal of known SWHA nest trees, even outside of the nesting season, be replaced with an appropriate native tree species planting at a ratio of 3:1 at or near the Project area or in another area that will be protected in perpetuity. This mitigation would offset the local and temporal impacts of nesting habitat loss.

COMMENT 2: Tricolored Blackbird (TRBL)

Issue: TRBL colonies require suitable nesting habitat, nearby freshwater, and nearby foraging habitat including grasslands, low-growing agricultural croplands (e.g., alfalfa, irrigated pastures, cut grain fields such as silage), or alkali scrub (Beedy et al. 2017).

Specific impact: Without appropriate avoidance and minimization measures for TRBL, potential significant impacts associated with Project activities include nest and/or colony abandonment, reduced reproductive success, and reduced health and vigor of eggs and/or young.

Evidence impact would be significant: The Project site has the potential to contain elements that have the potential to support TRBL nesting colonies. TRBL aggregate and nest colonially, forming colonies of up to 100,000 nests (Beedy et al. 2017). This species has been steadily declining due to annual breeding losses due to crop-harvesting activities, insufficient insect resources, and habitat loss due to land conversion for agriculture, rangeland, and urban development (Beedy et al. 2017).

Recommended Potentially Feasible Mitigation Measure(s)
To evaluate potential Project-related impacts to TRBL, CDFW recommends conducting the following evaluation of the Project site and including the following measures in the EIR if suitable habitat is present.

Recommended Mitigation Measure 5: Habitat Assessment

If the Project site contains fallow agricultural fields, ruderal grasslands, or other low growing vegetation, CDFW recommends that a qualified biologist conduct a habitat assessment in advance of Project implementation, to determine if the Project site or its immediate vicinity contains suitable habitat for TRBL.

Recommended Mitigation Measure 6: TRBL Surveys

If suitable habitat is present, CDFW recommends that Project activities be timed to avoid the normal bird breeding season (February 1 through September 15). However, if Project activities must take place during that time, CDFW recommends that a qualified wildlife biologist conduct surveys for nesting TRBL no more than 10 days prior to the start of implementation to evaluate presence/absence of TRBL nesting colonies in proximity to Project activities and to evaluate potential Project-related impacts.

Recommended Mitigation Measure 7: TRBL Avoidance

If an active TRBL nesting colony is found during preconstruction surveys, CDFW recommends implementation of a minimum 300-foot no-disturbance buffer in accordance with CDFW's "Staff Guidance Regarding Avoidance of Impacts to Tricolored Blackbird Breeding Colonies on Agriculture Fields in 2015" (CDFW 2015). CDFW advises that this buffer remain in place until the breeding season has ended or until a qualified biologist has determined that nesting has ceased, the birds have fledged, and are no longer reliant upon the colony or parental care for survival. It is important to note that TRBL colonies can expand over time and for this reason, the colony should be reassessed to determine the extent of the breeding colony within 10 days for Project initiation.

Recommended Mitigation Measure 8: TRBL Take Authorization

If a TRBL nesting colony is detected during surveys, consultation with CDFW is warranted to discuss how to implement the Project and avoid take, or if avoidance is not feasible, to acquire an ITP, pursuant to Fish and Game Code section 2081 subdivision (b), prior to any ground-disturbing activities.

COMMENT 3: Burrowing Owl (BUOW)

Issue: BUOW may occur within and/or adjacent to the Project site if suitable small mammal burrows are present. BUOW may inhabit small mammal burrows, a requisite habitat feature used by BUOW for nesting and cover, adjacent to open grasslands, ROWs, vacant lots, low-growing crops, etc., where they can find suitable foraging habitat.

Specific impact: Potentially significant direct impacts associated with subsequent activities and development include burrow collapse, inadvertent entrapment, nest abandonment, reduced reproductive success, reduction in health and vigor of eggs and/or young, and direct mortality of individuals.

Evidence impact is potentially significant: BUOW rely on burrow habitat year-round for their survival and reproduction. Habitat loss and degradation are considered the greatest threats to BUOW in California's Central Valley (Gervais et al. 2008). The Project site is bordered by some of the only remaining habitat in the vicinity, which is otherwise urban or intensively managed for agriculture. Therefore, subsequent ground-disturbing activities associated with the Project have the potential to significantly impact local BUOW populations. In addition, and as described in CDFW's "*Staff Report on Burrowing Owl Mitigation*" (CDFG 2012), excluding and/or evicting BUOW from their burrows is considered a potentially significant impact under CEQA.

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Environmental Setting and Related Impact)
To evaluate potential impacts to BUOW, CDFW recommends conducting the following evaluation of the subject parcel and implementing the following mitigation measures.

Recommended Mitigation Measure 9: BUOW Surveys

If small mammal burrows are present within the Project site, CDFW recommends assessing presence/absence of BUOW by having a qualified biologist conduct surveys following the California Burrowing Owl Consortium's "*Burrowing Owl Survey Protocol and Mitigation Guidelines*" (CBOC 1993) and CDFW's *Staff Report on Burrowing Owl Mitigation*" (CDFG 2012). Specifically, if suitable habitat is present at an individual Project site, CBOC and CDFW's Staff Report suggest three or more surveillance surveys conducted during daylight with each visit occurring at least three weeks apart during the peak breeding season (April 15 to July 15), when BUOW are most detectable.

Recommended Mitigation Measure 10: BUOW Avoidance

CDFW recommends no-disturbance buffers, as outlined in the "*Staff Report on Burrowing Owl Mitigation*" (CDFG 2012), be implemented prior to and during any ground-disturbing activities. Specifically, CDFW's Staff Report recommends that impacts to occupied burrows be avoided in accordance with the following table unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1-Aug 15	200 m*	500 m	500 m
Nesting sites	Aug 16-Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16-Mar 31	50 m	100 m	500 m

* meters (m)

Recommended Mitigation Measure 11: BUOW Passive Relocation and Mitigation

If BUOW are found within these recommended buffers and avoidance is not possible, it is important to note that according to the Staff Report (CDFG 2012), exclusion is not a take avoidance, minimization, or mitigation method and is considered a potentially significant impact under CEQA. However, if necessary, CDFW recommends that burrow exclusion be conducted by qualified biologists and only during the non-breeding season, before breeding behavior is exhibited and after the burrow is confirmed empty through non-invasive methods, such as surveillance. CDFW recommends replacement of occupied burrows with artificial burrows at a ratio of 1 burrow collapsed to 1 artificial burrow constructed (1:1) as mitigation for the potentially significant impact of evicting BUOW. BUOW may attempt to colonize or re-colonize an area that will be impacted; thus, CDFW recommends ongoing surveillance, at a rate that is sufficient to detect BUOW if they return.

II. Editorial Comments and/or Suggestions

Nesting Birds: CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs and nests include sections 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

CDFW encourages Project implementation to occur during the bird non-nesting season; however, if Project activities must occur during the breeding season (i.e., February through mid-September), the Project applicant is responsible for ensuring that implementation of the

Project does not result in violation of the Migratory Bird Treaty Act or relevant Fish and Game Codes as referenced above.

To evaluate Project-related impacts on nesting birds, CDFW recommends that a qualified wildlife biologist conduct pre-activity surveys for active nests no more than 10 days prior to the start of ground disturbance to maximize the probability that nests that could potentially be impacted by the Project are detected. CDFW also recommends that surveys cover a sufficient area around the work site to identify nests and determine their status. A sufficient area means any area potentially affected by a project. In addition to direct impacts (i.e., nest destruction), noise, vibration, and movement of workers or equipment could also affect nests. Prior to initiation of construction activities, CDFW recommends that a qualified biologist conduct a survey to establish a behavioral baseline of all identified nests. Once construction begins, CDFW recommends that a qualified biologist continuously monitor nests to detect behavioral changes resulting from the project. If behavioral changes occur, CDFW recommends that the work causing that change cease and CDFW be consulted for additional avoidance and minimization measures.

If continuous monitoring of identified nests by a qualified wildlife biologist is not feasible, CDFW recommends a minimum no-disturbance buffer of 250 feet around active nests of non-listed bird species and a 500-foot no-disturbance buffer around active nests of non-listed raptors. These buffers are advised to remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival. Variance from these no-disturbance buffers is possible when there is compelling biological or ecological reason to do so, such as when the construction area would be concealed from a nest site by topography. CDFW recommends that a qualified wildlife biologist advise and support any variance from these buffers and notify CDFW in advance of implementing a variance.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database, which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the CNDDB. The CNDDB field survey form can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW.

Payment of the fee is required for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

CONCLUSION

CDFW appreciates the opportunity to comment on the NOP to assist the City of Porterville in identifying and mitigating Project impacts on biological resources.

If you have any questions, please contact Jaime Marquez, Environmental Scientist, at the address provided on this letterhead, or by electronic mail at Jaime.Marquez@wildlife.ca.gov.

Sincerely,

DocuSigned by:

Julie Vance

FA83F09FE08945A...

Julie A. Vance
Regional Manager

Attachment 1

REFERENCES

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Attachment 1

MITIGATION MONITORING AND REPORTING PROGRAM (MMRP) FOR CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE RECOMMENDED MITIGATION MEASURES

PROJECT: Lombardi Development Project
SCH No.: 2021070158

RECOMMENDED MITIGATION MEASURE	STATUS/DATE/INITIALS
Before Disturbing Soil or Vegetation	
Mitigation Measure 1: Focused SWHA Surveys	
Mitigation Measure 3: SWHA Take Authorization	
Mitigation Measure 5: TRBL Habitat Assessment	
Mitigation Measure 6: TRBL Surveys	
Mitigation Measure 8: TRBL Take Authorization	
Mitigation Measure 9: BUOW Surveys	
Mitigation Measure 11: BUOW Passive Relocation and Mitigation	
During Construction	
Mitigation Measure 2: SWHA Avoidance	
Mitigation Measure 4: SWHA Tree Removal	
Mitigation Measure 7: TRBL Avoidance	
Mitigation Measure 10: BUOW Avoidance	

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Chumash

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Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
Russell Attebery
Karuk

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
Julie Tumamait-Stenslie
Chumash

COMMISSIONER
[Vacant]

COMMISSIONER
[Vacant]

COMMISSIONER
[Vacant]

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

STATE OF CALIFORNIA — Gavin Newsom, *Governor*

NATIVE AMERICAN HERITAGE COMMISSION

RECEIVED

JUL 19 2021

Community Development Department

July 12, 2021

Jason Ridenour
City of Porterville
291 N. Main Street
Porterville, CA 93257

Re: 2021070158, Lombardi Development Project, Tulare County

Dear Mr. Ridenour:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

cc: State Clearinghouse

California Department of Transportation

DISTRICT 6 OFFICE
1352 WEST OLIVE AVENUE | P.O. BOX 12616 | FRESNO, CA 93778-2616
(559) 981-1041 | FAX (559) 488-4195 | TTY 711
www.dot.ca.gov

September 9, 2021

TUL-65-20.85
NOP
LOMBARDI SUBDIVISION
GTS #: 32963

SENT VIA EMAIL

Mr. Jason Ridenour, Director
Community Development Department
City of Porterville,
291 N. Main Street.
Porterville CA, 93257

Dear Mr. Ridenour:

Caltrans has completed a planning level review of the Notice of Preparation (NOP) for a Draft Environmental Impact Study (EIR). The Project consists of an Annexation, General Plan Amendment, Rezone, and a Vesting Tentative Subdivision Map to allow for the construction of up to 233 single-family residential units on 56-acres. The annexation also includes the existing Summit Charter Academy - Lombardi Campus, which brings the total annexation to approximately 69.65 acres.

The Project site location is on the north west corner of Lombardi Street and Westfield Avenue, approximately 2 miles east of the SR 65/Westfield overcrossing and approximately 3 miles north of the SR 190/Westwood intersection, in the City of Porterville.

The mission of Caltrans is to provide a safe and reliable transportation network that serves all people and respects the environment. To ensure a safe and efficient transportation system, we encourage early consultation and coordination with local jurisdictions and project proponents on all development projects that utilize the multimodal transportation network.

Caltrans provides the following comments consistent with the State's smart mobility goals that support a vibrant economy and sustainable communities:

1. Caltrans anticipates the project would have a minor impact to the State Highway System namely SR 65 or SR 190, based on the information in the NOP.

2. The proposed project appears to induce the vehicle miles travel (VMT) in the surrounding vicinity. We recommended that the City considering a multimodal

transportation system (such as bicycle and pedestrian facilities as well as public transportation) to provide connectivity mode between the residential areas to commercial/retail areas to reduce the VMT induced by the project.

3. Alternative transportation policies should be applied to the development. An assessment of multi-modal facilities should be conducted to develop an integrated multi-modal transportation system to serve and help alleviate traffic congestion caused by the project and related development in this area of the City or County. The assessment should include the following:

    a. Pedestrian walkways should link this proposal to an internal project area walkway, transit facilities, as well as other walkways in the surrounding area.

    b. The Project might also consider coordinating connections to local and regional bicycle pathways to further encourage the use of bicycles for commuter and recreational purposes.

    c. If transit is not available within ¼-mile of the site, transit should be extended to provide services to what will be a high activity center.

4. Active Transportation Plans and Smart Growth efforts support the state's 2050 Climate goals. Caltrans supports reducing Vehicle Miles Traveled (VMT) and Green House Gas (GHG) emissions in ways that increase the likelihood people will use and benefit from a multimodal transportation network.

5. Based on Caltrans VMT-Focused Transportation Impact Study Guide, dated May 20, 2020 and effective as of July 1, 2020, Caltrans seeks to reduce single occupancy vehicle trips, provide a safe transportation system, reduce per capita Vehicle Miles Traveled (VMT), increase accessibility to destinations via cycling, walking, carpooling, transit and reduce greenhouse gas (GHG) emissions. Caltrans recommends that the project proponent continue to work with the City or County to further implement improvements to reduce vehicles miles traveled and offer a variety of transportation modes for its employees.

If you have any other questions, please call me at (559) 981-1041.

Sincerely,

DAVID DEEL
Associate Transportation Planner
Transportation Planning – South

August 9, 2021

VIA EMAIL: PLANNING@CI.PORTERVILLE.CA.US
Jason Ridenour
Community Development Director
City of Porterville
291 N. Main Street
Porterville, CA 93257

Dear Mr. Ridenour:

INITIAL STUDY/NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR THE LOMBARDI DEVELOPMENT PROJECT, SCH#2021070158

The Department of Conservation's (Department) Division of Land Resource Protection (Division) has reviewed the Initial Study/Notice of Preparation of an Environmental Impact Report for the Lombardi Development Project (Project). The Division monitors farmland conversion on a statewide basis, provides technical assistance regarding the Williamson Act, and administers various agricultural land conservation programs. We offer the following comments and recommendations with respect to the project's potential impacts on agricultural land and resources.

Project Description

The proposed Project consists of an Annexation, General Plan Amendment, Rezone and a Tentative Subdivision Map to allow for the construction of up to 233 single-family residential units. Parcels to be annexed include 245-010-087, -092, -037 and -041 for a total of approximately 69.65 acres. The 56-acre subdivision would be developed on Assessor Parcel Number 245-010-087. The Project site is located between N. Westwood Street and N. Lombardi Street, bounded to the south by W. Westfield Avenue.

The project site contains Prime Farmland, and Farmland of Statewide Importance as designated by the Department of Conservation's Farmland Mapping and Monitoring Program.[1] The site also contains lands under Williamson Act contract.

[1] California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, https://maps.conservation.ca.gov/DLRP/CIFF/

Department Comments

Although conversion of agricultural land is often an unavoidable impact under CEQA analysis, feasible alternatives and/or feasible mitigation measures must be considered. In some cases, the argument is made that mitigation cannot reduce impacts to below the level of significance because agricultural land will still be converted by the project, and therefore, mitigation is not required. However, reduction to a level below significance is not a criterion for mitigation under CEQA. Rather, the criterion is feasible mitigation that lessens a project's impacts. As stated in CEQA statue, mitigation may also include, "Compensating for the impact by replacing or providing substitute resources or environments, including through permanent protection of such resources in the form of conservation easements."[2]

The conversion of agricultural land represents a permanent reduction in the State's agricultural land resources. As such, the Department advises the use of permanent agricultural conservation easements on land of at least equal quality and size as partial compensation for the loss of agricultural land. Conservation easements are an available mitigation tool and considered a standard practice in many areas of the State. The Department highlights conservation easements because of their acceptance and use by lead agencies as an appropriate mitigation measure under CEQA and because it follows an established rationale similar to that of wildlife habitat mitigation.

Mitigation via agricultural conservation easements can be implemented by at least two alternative approaches: the outright purchase of easements or the donation of mitigation fees to a local, regional, or statewide organization or agency whose purpose includes the acquisition and stewardship of agricultural conservation easements. The conversion of agricultural land should be deemed an impact of at least regional significance. Hence, the search for replacement lands should not be limited strictly to lands within the project's surrounding area.

A source that has proven helpful for regional and statewide agricultural mitigation banks is the California Council of Land Trusts. They provide helpful insight into farmland mitigation policies and implementation strategies, including a guidebook with model policies and a model local ordinance. The guidebook can be found at:

http://www.calandtrusts.org/resources/conserving-californias-harvest/

Of course, the use of conservation easements is only one form of mitigation that should be considered. Any other feasible mitigation measures should also be considered.

[2] Public Resources Code Section 15370, Association of Environmental Professionals, 2020 CEQA, California Environmental Quality Act, Statute & Guidelines, page 284, https://www.califaep.org/docs/2020_ceqa_book.pdf

Conclusion

The Department recommends further discussion of the following issues:

- Type, amount, and location of farmland conversion resulting directly and indirectly from implementation of the proposed project.
- Impacts on any current and future agricultural operations in the vicinity; e.g., land-use conflicts, increases in land values and taxes, loss of agricultural support infrastructure such as processing facilities, etc.
- Incremental impacts leading to cumulative impacts on agricultural land. This would include impacts from the proposed project, as well as impacts from past, current, and likely future projects.
- Proposed mitigation measures for all impacted agricultural lands within the proposed project area.
- Projects compatibility with lands within an agricultural preserve and/or enrolled in a Williamson Act contract.
- If applicable, notification of Williamson Act contract non-renewal and/or cancellation.

Thank you for giving us the opportunity to comment on the Initial Study/Notice of Preparation of an Environmental Impact Report for the Lombardi Development Project. Please provide this Department with notices of any future hearing dates as well as any staff reports pertaining to this project. If you have any questions regarding our comments, please contact Farl Grundy, Associate Environmental Planner via email at Farl.Grundy@conservation.ca.gov.

Sincerely,

Monique Wilber

Monique Wilber

Conservation Program Support Supervisor

Jared Blumenfeld
Secretary for
Environmental Protection

Department of Toxic Substances Control

Meredith Williams, Ph.D., Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Gavin Newsom
Governor

July 26, 2021

Mr. Jason Ridenour
City of Porterville
291 N. Main Street
Porterville, CA 93257
JRidenour@ci.porterville.ca.us

NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR LOMBARDI DEVELOPMENT PROJECT – DATED JULY 2021
(STATE CLEARINGHOUSE NUMBER: 2021070158)

Dear Mr. Ridenour:

The Department of Toxic Substances Control (DTSC) received a Notice of Preparation of an Environmental Impact Report (EIR) for Lombardi Development Project (Project). The Lead Agency is receiving this notice from DTSC because the Project includes one or more of the following: groundbreaking activities, work in close proximity to a roadway, work in close proximity to mining or suspected mining or former mining activities, presence of site buildings that may require demolition or modifications, importation of backfill soil, and/or work on or in close proximity to an agricultural or former agricultural site.

DTSC recommends that the following issues be evaluated in the EIR Hazards and Hazardous Materials section:

1. The EIR should acknowledge the potential for historic or future activities on or near the project site to result in the release of hazardous wastes/substances on the project site. In instances in which releases have occurred or may occur, further studies should be carried out to delineate the nature and extent of the contamination, and the potential threat to public health and/or the environment should be evaluated. The EIR should also identify the mechanism(s) to initiate any required investigation and/or remediation and the government agency who will be responsible for providing appropriate regulatory oversight.

2. Refiners in the United States started adding lead compounds to gasoline in the 1920s in order to boost octane levels and improve engine performance. This practice did not officially end until 1992 when lead was banned as a fuel additive in California. Tailpipe emissions from automobiles using leaded gasoline contained lead and resulted in aerially deposited lead (ADL) being deposited in and along roadways throughout the state. ADL-contaminated soils still exist along roadsides and medians and can also be found underneath some existing road surfaces due to past construction activities. Due to the potential for ADL-contaminated soil DTSC, recommends collecting soil samples for lead analysis prior to performing any intrusive activities for the project described in the EIR.

3. If any sites within the project area or sites located within the vicinity of the project have been used or are suspected of having been used for mining activities, proper investigation for mine waste should be discussed in the EIR. DTSC recommends that any project sites with current and/or former mining operations onsite or in the project site area should be evaluated for mine waste according to DTSC's 1998 Abandoned Mine Land Mines Preliminary Assessment Handbook

4. If buildings or other structures are to be demolished on any project sites included in the proposed project, surveys should be conducted for the presence of lead-based paints or products, mercury, asbestos containing materials, and polychlorinated biphenyl caulk. Removal, demolition and disposal of any of the above-mentioned chemicals should be conducted in compliance with California environmental regulations and policies. In addition, sampling near current and/or former buildings should be conducted in accordance with DTSC's 2006 *Interim Guidance Evaluation of School Sites with Potential Contamination from Lead Based Paint, Termiticides, and Electrical Transformers*.

5. If any projects initiated as part of the proposed project require the importation of soil to backfill any excavated areas, proper sampling should be conducted to ensure that the imported soil is free of contamination. DTSC recommends the imported materials be characterized according to *DTSC's 2001 Information Advisory Clean Imported Fill Material*.

6. If any sites included as part of the proposed project have been used for agricultural, weed abatement or related activities, proper investigation for organochlorinated pesticides should be discussed in the EIR. DTSC recommends the current and former agricultural lands be evaluated in accordance with DTSC's 2008 *Interim Guidance for Sampling Agricultural Properties (Third Revision)*.

DTSC appreciates the opportunity to comment on the EIR. Should you need any assistance with an environmental investigation, please submit a request for Lead Agency Oversight Application. Additional information regarding voluntary agreements with DTSC can be found at DTSC's Brownfield website.

If you have any questions, please contact me at (916) 255-3710 or via email at Gavin.McCreary@dtsc.ca.gov.

Sincerely,

Gavin McCreary
Project Manager
Site Evaluation and Remediation Unit
Site Mitigation and Restoration Program
Department of Toxic Substances Control

cc: (via email)

Governor's Office of Planning and Research
State Clearinghouse
State.Clearinghouse@opr.ca.gov

Mr. Dave Kereazis
Office of Planning & Environmental Analysis
Department of Toxic Substances Control
Dave.Kereazis@dtsc.ca.gov

From: Jason Ridenour
To: Emily Bowen; Julia Lew; Jeff O"Neal
Cc: Troy Andres
Subject: Fw: Lombardi Street
Date: Tuesday, July 27, 2021 8:09:47 AM
Attachments: Outlook-i4lwsnr0.png

Good morning,

Please see the communication from Mr. Ennis that was received yesterday in respond to the NOP.

Thank you,

Jason Ridenour
Community Development Director
City of Porterville
559-782-7460
ChoosePorterville.com

From: benennis@enniscp.com <benennis@enniscp.com>
Sent: Monday, July 26, 2021 3:50 PM
To: Jason Ridenour <jridenour@ci.porterville.ca.us>; Dennis Townsend <DTownsend@tularecounty.ca.gov>; jrice@burtonschools.org <jrice@burtonschools.org>; sergio.mendoza@burtonschools.org <sergio.mendoza@burtonschools.org>; Jim Robinson <jrobinson@sjvhomes.com>; lombardi3g@gmail.com <lombardi3g@gmail.com>
Cc: Patrice Hildreth <phildreth@ci.porterville.ca.us>; Javier Sanchez <jsanchez@ci.porterville.ca.us>; Monte Reyes (montereyes@portervilleca.gov) <montereyes@portervilleca.gov>
Subject: Lombardi Street

It was my understanding that we would have a meeting scheduled after our May Zoom call to address the traffic issues on Lombardi Street going to the Lombardi campus from Westfield prior to moving ahead so that all parties could give additional input. I have been waiting for that meeting so that we might further discuss ways to alleviate the traffic on Lombardi Street to the school. I am out of town and disappointed to find out that a Ceqa meeting is scheduled for tomorrow night for the subdivision prior to another meeting being scheduled by the City as promised. I might direct you to part of the Ceqa guidelines which states **"2.1 Congestion and Accessibility 2.1.1 Defining**

Traffic Congestion Traffic congestion occurs when the demand for road space exceeds its supply in a given direction at a given time in the day. This imbalance between supply and demand creates a scarcity of road capacity; as more individuals use a relatively fixed supply of road capacity, less space is available for travel by others and queuing for the scarce capacity occurs." There should be no question about demand for road space exceeding it's supply due to some poor decision making on the City and Burton Schools part to locate a school on a one way in and one way out street. I am disappointed in the fact that it seems as if the City finds no merit in traffic mitigation for a street that is extremely impacted or on following through on the discussions to solve the issue. Due to the fact that I will not be available tomorrow evening, I would like to make certain that the portion of the Ceqa guidelines regarding traffic mitigation is added as an item that must be mitigated in the meeting.

Ben Ennis

Lombardi Subdivision Project

mckerv6@aol.com <mckerv6@aol.com>

Tue 7/13/2021 6:37 AM

To: Planning <planning@ci.porterville.ca.us>

Caution! This message was sent from outside your organization.

Jason, I am writing to you to provide some feedback on the Lombardi Project.

I live in Williams ranch and love this are of town. The only concern that I have to raise is concerning traffic flow.

The traffic bottleneck just north of the intersection of Henderson and Westwood will get worse with more traffic in this area of town.

Specifically the small bridge north of Henderson where cars get backed up during peak times is very dangerous and needs to be addressed.

Please reply with some basic response to traffic in the area and how the City will be addressing traffic increase in this area as a result of the additional Homes.

Sincerely,

Edward McKervey
2154 W. San Lucia CT
Porterville, Ca 93257
661-344-6260

Appendix B

Air Quality Impact Study

Air Quality, Greenhouse Gas, and Energy Impact Assessment

Lombardi Development Project

July 23, 2021

Prepared for:

Crawford & Bowen Planning, Inc.
113 N. Church Street, #302
Visalia, CA 93291

Prepared by:

Stantec Consulting Services Inc.
6780 North West Avenue, Suite 103
Fresno, CA 93711
Contact: Elena Nuño, Principal Air Quality Scientist/Planner
559.355.0580

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ABBREVIATIONS

µg/m3	Micrograms Per Cubic Meter
AB	Assembly Bill
ACBMs	Asbestos-Containing Building Materials
ATCMs	Airborne Toxic Control Measures
AQGGP	Air Quality Guidelines for General Plans
AQI	Air Quality Index
AQP	Air Quality Plan
BACT	Best Available Control Technology
BAU	Business-As-Usual
BPS	Best Performance Standards
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act
CEQA	California Environmental Quality Act
CF4	Perfluoromethane
CH4	Methane
CO	Carbon Monoxide
CO2	Carbon Dioxide
C2F6	Perfluoroethane
C3F8	Perfluoropropane
C4F10	Perfluorobutane
C4F8	Perfluorocyclobutane
C5F12	Perfluoropentane
C6F14	Perfluorohexane
DPM	Diesel Particulate Matter
DRRP	Diesel Risk Reduction Plan
EO	Executive Order
EPA	United States Environmental Protection Agency
FCAA	Federal Clean Air Act
GAMAQI	Guidance for Assessing and Mitigating Air Quality Impacts
GHG	Greenhouse Gases
GWP	Global Warming Potential
HAP	Hazardous Air Pollutants
HFC	Hydrofluorocarbons
H2S	Hydrogen Sulfide
LCFS	Low Carbon Fuel Standard

LOS	Level of Service
MMT	Million Metric Tons
MMTCO2e	Million Metric Tons of Carbon Dioxide Equivalents
MTCO2e	Metric Tons of Carbon Dioxide Equivalents
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NF3	Nitrogen Trifluoride
N2O	Nitrous Oxide
NOA	Naturally Occurring Asbestos
NOX	Oxides of Nitrogen
NO2	Nitrogen Dioxide
O3	Ozone
OAL	Office of Administrative Law
Pb	Lead
PEIR	Program Environmental Impact Report
PERP	Portable Equipment Registration Program
PFCs	Perfluorocarbons
PG&E	Pacific Gas and Electric Company
PM	Particulate Matter
PM2.5	Fine particulate matter; particulate matter 2.5 microns or smaller
PM10¬	Particulate matter; particulate matter 10 microns or smaller
ppb	parts per billion
ppm	parts per million
ROG	Reactive Organic Gases
RPS	Renewable Portfolio Standard
RTP	Regional Transportation Plan
SB	Senate Bill
SCS	Sustainable Communities Strategy
SF6	Sulfur Hexafluoride
SIL	Significant Impact Level
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District
SO2	Sulfur Dioxide
SO4	Sulfates
SOX	Sulfur Oxides
TAC	Toxic Air Contaminants
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds

1.0 EXECUTIVE SUMMARY

The following air quality, greenhouse gas, and energy impact analysis was prepared to evaluate whether construction and operation of the Lombardi Development in Porterville, California would cause significant impacts with respect to air quality, greenhouse gas, and energy 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.).

1.1 PROJECT UNDERSTANDING

The Lombardi Development Project (Project) proposes to construct and operate a new residential development with a community park. The project includes a zoning change from Very Low Density Residential Development (RS-1) to Low Density Residential (RS-2) on APN 245-010-087 and includes the annexation of Assessor Parcel Number (APN) 245-010-087, -041, -037, and -92. Construction will only occur on APN 245-010-087 and the existing uses on the remaining parcels will remain.

1.2 SUMMARY OF ANALYSIS

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. **Less Than Significant Impact.**

Impact AIR-3: The Project would not expose sensitive receptors to substantial pollutant concentrations. **Less Than Significant Impact With Mitigation.**

Impact AIR-4: The Project would not result in other emissions (such as those leading to odors) affecting a substantial number of people. **Less Than Significant Impact.**

Impact GHG-1: The Project would not generate direct and indirect greenhouse gas emissions that would result in a significant impact on the environment. **Less Than Significant Impact.**

Impact GHG-2: The Project would not conflict with any applicable plan, policy or regulation of an agency adopted to reduce the emissions of greenhouse gases. **Less Than Significant Impact.**

Impact ENERGY-1: The Project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. **Less Than Significant Impact.**

Impact ENERGY-2: The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. **Less Than Significant Impact.**

1.3 MITIGATION MEASURES APPLIED TO THE PROJECT

MM AIR-1: **Clean Construction Fleet.** The Project Applicant and/or their respective contractors shall submit documentation to the City of Porterville demonstrating that all off-road diesel-powered construction equipment greater than 50 horsepower meets EPA or ARB Tier 4 off-road emission standards.

2.0 INTRODUCTION

2.1 PURPOSE OF ANALYSIS

The purpose of this Air Quality, Greenhouse Gas, and Energy Impact Assessment Technical Study (Study) is to analyze potential air quality, greenhouse gas (GHG), and energy impacts that could occur from the construction and operation of the Lombardi Development Project. This assessment was conducted within the context of the California Environmental Quality Act (CEQA).

2.2 PROJECT DESCRIPTION

The Project proposes to construct and operate a new residential development within the City of Porterville. The proposed Project consists of an Annexation, General Plan Amendment, Rezone and a Tentative Subdivision Map to allow for the construction of up to 233 single-family residential units. Parcels to be annexed include 245-010-087, -092, -037 and -041 for a total of approximately 69.65 acres. The 56-acre subdivision would be developed on Assessor Parcel Number 245-010-087. The Project site is in northwest Porterville between N. Westwood Street and N. Lombardi Street, bounded to the south by W. Westfield Avenue. The proposed project includes the following components:

- Construction of 233 single family residential units.
- Development of a 152,217 square foot park in the center of the residential development.
- Construction of local roads with five points of ingress/egress; one on the southern boundary of the property off W. Westfield Avenue, one on the western boundary off N. Westwood Street, one on the northern boundary off an unnamed street adjacent to the Summit Charter Academy, Lombardi Campus, and two on the eastern boundary off N. Lombardi Street.
- Improvement of all streets in or adjacent to the subdivision, in accordance with the approved improvements plan, per Section 407.02(h) of the Porterville Development Ordinance.
- Development of a subdivision tree and landscaping design that will be approved by the City. At least one tree will be plants on each residential lot and street trees will be planted at 35 feet on center along all parkways within and/or bordering the subdivision.

- Development of a Landscape plan, in accordance with Chapter 303 of the Porterville Development Ordinance.
- Change the zone on APN 245-010-087 from the prezoned RS-1 to RS-2 (Very Low Density Residential to Low Density Residential).
- Annexation of APN 245-010-087 (56.32-acres), APN 245-010-041 (1.00-acres), APN 245-010-037 (1.06-acres), and APN 245-010-092 (11.27-acres). Summit Charter Academy, Lombardi Campus, is on APN 245-010-087, and rural houses are on -037 and -041. The only physical changes proposed with this Project will occur on APN 245-010-087.
- Cancellation of Williamson Act contract Number 05126 and disestablishment of Ag Preserve 2034.

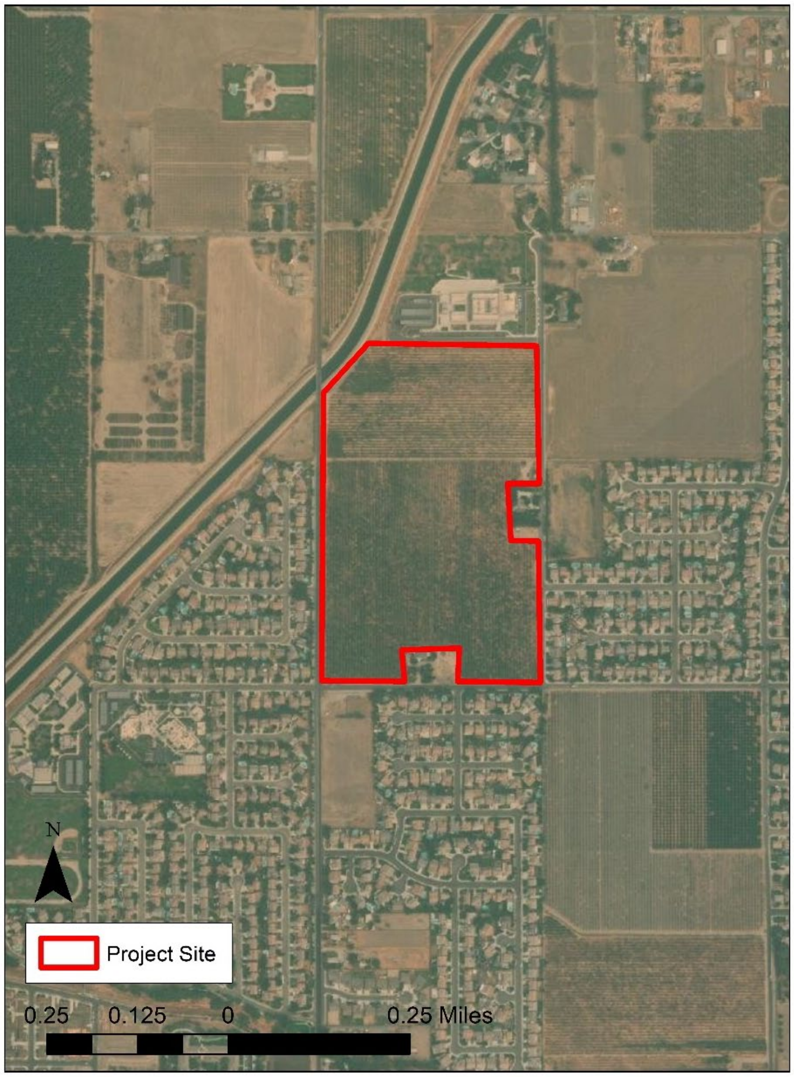
2.2.1 Surrounding Land Uses and Existing Conditions

The Project site is currently in use with primarily agricultural activities with two rural residences with one located along W. Westfield Avenue and one located along N. Lombardi Street. Both residences are adjacent to vacant areas utilized for storage and staging heavy equipment.

The proposed site is surrounded by the following land uses:

- North: Summit Charter Academy, Lombardi Campus and a portion of the Friant-Kern Canal, identified as Public Land and Park Land.
- South: Residential development and vacant land, identified as Low Density and Medium Density Residential.
- East: Residential development, vacant land and agriculture, identified as Very Low and Low Density Residential.
- West: Residential development, identified as Low Density Residential.

Figure 1: Project Site



3.0 AIR QUALITY

3.1 ENVIRONMENTAL SETTING

The proposed project is located within the San Joaquin Valley Air Basin (SJVAB). The San Joaquin Valley Air Pollution Control District (SJVAPCD) regulates air quality in eight counties including: Fresno, Kern, (western and central), Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare.

Air pollution in the SJVAB can be attributed to both human-related (anthropogenic) and natural (non-anthropogenic) activities that produce emissions. Air pollution from significant anthropogenic activities in the SJVAB includes a variety of industrial-based sources as well as on- and off-road mobile sources.

Activities that tend to increase mobile activity include increases in population, increases in general traffic activity (including automobiles, trucks, aircraft, and rail), urban sprawl (which will increase commuter driving distances), and general local land management practices as they pertain to modes of commuter transportation. These sources, coupled with geographical and meteorological conditions unique to the area, stimulate the formation of unhealthy air.

3.1.1 Climate Topography

The following information is excerpted from the most recent version of the SJVAPCD Guide for Assessing, and Mitigating Air Quality Impacts (GAMAQI) adopted in March 2015 (SJVAPCD 2015a).

The SJVAB 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 Basin averages over 260 sunny days per year. The SJVAB 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).

Dominant airflows provide the driving mechanism for transport and dispersion of air pollution. The mountains surrounding the SJVAB 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 Southeast Desert Air Basin portion of Kern County. As the wind moves through the 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.

Generally, the temperature of air decreases with height, creating a gradient from warmer air near the ground to cooler air at elevation. This gradient of cooler air over warm air is known as the environmental lapse rate. Inversions occur when warm air sits over cooler air, trapping the cooler air near the ground. These inversions trap pollutants from dispersing vertically and the mountains surrounding the San Joaquin Valley trap the pollutants from dispersing horizontally. Strong temperature inversions occur throughout the SJVAB in the summer, fall, and winter. Daytime temperature inversions occur at elevations of 2,000 to 2,500 feet above the San Joaquin Valley floor during the summer and at 500 to 1,000 feet during the winter. The result is a relatively high concentration of air pollution in the valley during inversion episodes. These inversions cause haziness, which in addition to moisture may include suspended dust, a variety of chemical aerosols emitted from vehicles, particulates from wood stoves, and other pollutants. In the winter, these conditions can lead to carbon monoxide “hotspots” along heavily traveled roads and at busy intersections. During summer’s longer daylight hours, stagnant air, high temperatures, and plentiful sunshine provide the conditions and energy for the photochemical reaction between reactive organic gases (ROG) and oxides of nitrogen (NO_X), which results in the formation of ozone.

Because of the prevailing daytime winds and time-delayed nature of ozone, concentrations are highest in the southern portion of the Basin. Summers are often periods of hazy visibility and occasionally unhealthful air, while winter air quality impacts tend to be localized and can consist of (but are not exclusive to) odors from agricultural operations; soot or smoke around residential, agricultural, and hazard-reduction wood burning; or dust near mineral resource recovery operations.

3.1.2 Criteria Air Pollutants

For the protection of public health and welfare, the Federal Clean Air Act (FCAA) required that the United States Environmental Protection Agency (EPA) establish National Ambient Air Quality Standards (NAAQS) for various pollutants. These pollutants are referred to as "criteria" pollutants because the EPA publishes criteria documents to justify the choice of standards. These standards define the maximum amount of an air pollutant that can be present in ambient air. An ambient air quality standard is generally specified as a concentration averaged over a specific time, such as one hour, eight hours, 24 hours, or one year. The different averaging times and concentrations are meant to protect against different exposure effects. Standards established for the protection of human health are referred to as primary standards; whereas standards established for the prevention of environmental and property damage are called secondary standards. The FCAA allows states to adopt additional or more health-protective standards. The air quality regulatory framework and ambient air quality standards are discussed in greater detail later in this report. Table 1 provides a summary of the California and National Ambient Air Quality Standards.

Table 1: California and National Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	National Standards	
		Concentration	Primary	Secondary
Ozone	1 Hour	0.09 ppm (180 μg/m³)	—	Same as Primary Standard
	8 Hour	0.070 ppm (137 μg/m³)	0.070 ppm (137 μg/m³)	
Respirable Particulate Matter	24 Hour	50 μg/m³	150 μg/m3	Same as Primary Standard
	Annual Arithmetic Mean	20 μg/m³	—	
Fine Particulate Matter	24 Hour	—	35 μg/m³	Same as Primary Standard
	Annual Arithmetic Mean	12 μg/m³	12 μg/m³	
Carbon Monoxide	1 Hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	—
	8 Hour	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)	—
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)	—	—
Nitrogen Dioxide	1 Hour	0.18 ppm (339 μg/m³)	100 ppb (188 μg/m³)	—
	Annual Arithmetic Mean	0.030 ppm (57 μg/m³)	0.053 ppm (100 μg/m³)	Same as Primary Standard
Sulfur Dioxide	1 Hour	0.25 ppm (655 μg/m³)	75 ppb (196 μg/m³)	—
	3 Hour	—	—	0.5 ppm (1,300 μg/m³)
	24 Hour	0.04 ppm (105 μg/m³)	0.14 ppm (for certain areas)	—
	Annual Arithmetic Mean	—	0.030 ppm (for certain areas)	—
Lead	30-Day Average	1.5 μg/m³	—	—
	Calendar Quarter	—	1.5 μg/m³	Same as Primary Standard
	Rolling 3-Month Average	—	0.15 μg/m³	
Visibility-Reducing Particles	8 Hour	See Footnote 1	No National Standards	
Sulfates	24 Hour	25 μg/m³		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 μg/m³)		
Vinyl Chloride	24 Hour	0.01 ppm (26 μg/m³)	—	

Pollutant	Averaging Time	California Standards	National Standards	
		Concentration	Primary	Secondary

Notes:

[1] 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.

$\mu g/m^3$ = micrograms per cubic meter

mg/m^3 = milligrams per cubic meter

Source: CARB 2016c

The following provides a summary discussion of the primary and secondary criteria air pollutants of primary concern. In general, primary pollutants are directed emitted into the atmosphere, and secondary pollutants are formed by chemical reactions in the atmosphere.

Ozone

Ozone (O_3) is a reactive gas consisting of three atoms of oxygen. Ozone occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. The troposphere extends to a level about 10 miles up where it meets the second layer, the stratosphere. While ozone in the upper atmosphere protects the earth from harmful ultraviolet radiation, high concentrations of ground-level ozone can adversely affect the human respiratory system.

Ozone, a colorless gas which is odorless at ambient levels, is the chief component of urban smog. Ozone is not directly emitted as a pollutant but is formed in the atmosphere when hydrocarbon and NO_X precursor emissions react in the presence of sunlight. Meteorology and terrain play major roles in ozone formation. Generally, low wind speeds or stagnant air coupled with warm temperatures and cloudless skies provide the optimum conditions for ozone formation. As a result, summer is generally the peak ozone season. Because of the reaction time involved, peak ozone concentrations often occur far downwind of the precursor emissions. Therefore, ozone is a regional pollutant that often impacts a large area (California Air Resources Board [CARB] 2001).

Sources of precursor gases number in the thousands and include common sources such as consumer products, gasoline vapors, chemical solvents, and combustion byproducts of various fuels. Emissions of the ozone precursors ROG and NO_X most commonly originate from motor vehicles, as well as commercial and industrial uses.

Many respiratory ailments, as well as cardiovascular disease, are aggravated by exposure to high ozone levels. High levels of ozone may negatively affect immune systems, making people more susceptible to respiratory illnesses, including bronchitis and pneumonia. Long-term exposure to ozone is linked to aggravation of asthma and is likely to be one of many causes of asthma development. Long-term exposures to higher concentrations of ozone may also be linked to permanent lung damage, such as abnormal lung development in children. People most at risk from breathing air containing ozone include people with asthma, children, older adults, and people who are active outdoors, especially outdoor workers. In addition, people with certain genetic characteristics, and people with reduced intake of certain nutrients, such as vitamins C and E, are at greater risk from ozone exposure (EPA 2021a).

Reactive Organic Gases and Volatile Organic Compounds

Hydrocarbons are organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases, including Volatile Organic Compounds (VOCs) and ROGs. ROGs include all hydrocarbons except those exempted by CARB. Therefore, ROGs are a set of organic gases based on state rules and regulations. VOCs are like ROGs in that they include all organic gases except those exempted by federal law.

Both VOCs and ROGs are emitted from incomplete combustion of hydrocarbons or other carbon- based fuels. Combustion engine exhaust, oil refineries, and oil-fueled power plants are the primary sources of hydrocarbons. Another source of hydrocarbons is evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

The primary health effects related to hydrocarbons stem from ozone (see discussion above). High levels of hydrocarbons in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. There are no separate national or California ambient air quality standards for ROG. Carcinogenic forms of ROG, such as benzene, are also considered toxic air contaminants (TACs).

Nitrogen Dioxide and Nitrogen Oxides

Nitrogen dioxide (NO_2) is one of a group of highly reactive gases known as "oxides of nitrogen (NO_X)." NO_2 is the component of greatest interest and the indicator for the larger group of NO_X. It forms quickly from emissions from cars, trucks, and buses, powerplants, and off-road equipment. NO_X is a strong oxidizing agent that reacts in the air to form corrosive nitric acid as well as toxic organic nitrates.

NO_X is emitted from solvents and combustion processes in which fuel is burned at high temperatures. Mobile sources (including on-road and off-road vehicles) and stationary sources such as electric utilities and industrial boilers, constitute a majority of the statewide NO_X emissions. To a lesser extent, area-wide sources, such as residential heaters, gas stoves, and managed burning and disposal, also contribute to total state-wide NO_X emissions (CARB 2010). NO_X is also linked to the formation of ground-level ozone and fine particle pollution (see discussion above for ozone and particulate pollution for additional discussion of health-related impacts).

Direct inhalation of NO_X can cause a wide range of health effects. NO_X can irritate the lungs, cause lung damage, and lower resistance to respiratory infections such as influenza. Short-term exposures (e.g., less than 3 hours) to low levels of NO_2 may lead to changes in airway responsiveness and lung function in individuals with pre-existing respiratory illnesses. These exposures may also increase respiratory illnesses in children. Long-term exposures to NO_2 may lead to increased susceptibility to respiratory infection and may cause irreversible lung damage. Other health effects are an increase in the incidence of chronic bronchitis and lung irritation. Chronic exposure may lead to eye and mucus membrane aggravation, along with pulmonary dysfunction. NO_X can cause fading of textile dyes and additives, deterioration of cotton and nylon, and corrosion of metals due to the production of particulate nitrates. Airborne NO_X can also impair visibility.

NO_X also contributes to a wide range of environmental effects both directly and indirectly when combined with other precursors in acid rain and ozone. Increased nitrogen inputs to terrestrial and wetland systems can lead to changes in plant species composition and diversity. Similarly, direct nitrogen inputs to aquatic ecosystems such as those found in estuarine and coastal waters can lead to eutrophication (a condition that promotes excessive algae growth, which can lead to a severe depletion of dissolved oxygen and increased levels of toxins that are harmful to aquatic life).

Nitrogen, alone or in acid rain, also can acidify soils and surface waters. Acidification of soils causes the loss of essential plant nutrients and increased levels of soluble aluminum, which is toxic to plants. Acidification of surface waters creates low pH conditions and levels of aluminum that are toxic to fish and other aquatic organisms. NO_X also contributes to haze and visibility impairment (EPA 2019a, CARB 2016a).

Particulate Matter

Particulate matter (PM) is a mixture of substances that includes elements such as carbon and metals; compounds such as nitrates, sulfates, and organic compounds; and complex mixtures such as diesel exhaust and soil. PM2.5 includes fine particles with a diameter of 2.5 microns or smaller and is a subset of PM10. These particles come in many sizes and shapes and can be made up of hundreds of different chemicals. Some particles, known as primary particles, are emitted directly from a source, such as construction sites, unpaved roads, fields, smokestacks, or fires. Others form in complicated reactions in the atmosphere of chemicals such as sulfur dioxides and nitrogen oxides that are emitted from power plants, industries, and automobiles. These particles, known as secondary particles, make up most of the fine particle pollution in the country (EPA 2019a, CARB 2016a).

Area-wide sources account for about 65 and 83% of the statewide emissions of directly emitted PM2.5 and PM10, respectively. The major area-wide sources of PM2.5 and

PM10 are fugitive dust, especially dust from unpaved and paved roads, agricultural operations, and construction and demolition. Sources of PM10 include crushing or grinding operations, and dust stirred up by vehicles traveling on roads. Sources of PM2.5 include all types of combustion, including motor vehicles, power plants, residential wood burning, forest fires, agricultural burning, and some industrial processes.

Exhaust emissions from mobile sources contribute only a very small portion of directly emitted PM2.5 and PM10 emissions but are a major source of the VOC and NO_X that form secondary particles (CARB 2013).

PM2.5 and PM10 particles are small enough to be inhaled and lodged in the deepest parts of the lung where they evade the respiratory system's natural defenses. Health problems begin as the body reacts to these foreign particles. Acute and chronic health effects associated with high particulate levels include the aggravation of chronic respiratory diseases; heart and lung disease; and coughing, bronchitis, and respiratory illnesses in children. Recent mortality studies have shown a statistically significant direct association between mortality and daily concentrations of particulate matter in the air. PM2.5 and PM10 can aggravate respiratory disease and cause lung damage, cancer, and premature death.

Sensitive populations, including children, the elderly, exercising adults, and those suffering from chronic lung disease such as asthma or bronchitis are especially vulnerable to the effect of PM10. Non-health-related effects include reduced visibility and soiling of buildings.

Carbon Monoxide

Carbon Monoxide (CO) is an odorless, colorless gas that is highly toxic. CO is emitted by mobile and stationary sources because of incomplete combustion of hydrocarbons or other carbon-based fuels. CO is an odorless, colorless, poisonous gas that is highly reactive.

CO enters the bloodstream and binds more readily to hemoglobin, the oxygen-carrying protein in blood, than oxygen, thereby reducing the oxygen-carrying capacity of blood and reducing oxygen delivery to organs and tissues. The health threat from CO is most serious for those who suffer from cardiovascular disease. Healthy individuals are also affected but only at higher levels of exposure. Exposure to CO can cause chest pain in heart patients, headaches, and reduced mental alertness. At high concentrations, CO can cause heart difficulties in people with chronic diseases and can impair mental abilities. Exposure to elevated CO levels is associated with visual impairment, reduced work capacity, reduced manual dexterity, poor learning ability, difficulty performing complex tasks, and, with prolonged enclosed exposure, death.

Very high levels of CO are not likely to occur outdoors. However, when CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease. These people already have a reduced ability for getting oxygenated blood to their hearts in situations where the heart needs more oxygen than usual. They are especially vulnerable to the effects of CO when exercising or under increased stress. In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart accompanied by chest pain also known as angina (EPA 2019a).

Sulfur Dioxide

Sulfur Dioxide (SO_2) is one of a group of highly reactive gases known as “oxides of sulfur (SO_X).” It is a colorless, irritating gas with a “rotten egg” smell that is formed primarily by the combustion of sulfur-containing fossil fuels. The largest source of SO2 in the atmosphere is the burning of fossil fuels by power plants and other industrial facilities. Smaller sources of SO_2 emissions include industrial processes such as extracting metal from ore; natural sources such as volcanoes; and locomotives, ships and other vehicles and heavy equipment that burn fuel with a high sulfur content. State and national ambient air quality standards for SO_2 are designed to protect against exposure to the entire group of sulfur oxides (SO_X). SO_2 is the component of greatest concern and is used as the indicator for the larger group of gaseous sulfur oxides.

High concentrations of SO_2 can result in temporary breathing impairment for asthmatic children and adults who are active outdoors. Short-term exposures of asthmatic individuals to elevated SO_2 levels during moderate activity may result in breathing difficulties that can be accompanied by symptoms such as wheezing, chest tightness, or shortness of breath. Other effects that have been associated with longer term exposures to high concentrations of SO_2 in conjunction with high levels of particulate matter include aggravation of existing cardiovascular disease, respiratory illness, and alterations in the lungs’ defenses. The subgroups of the population that may be affected under these conditions include individuals with heart or lung disease, as well as the elderly and children.

Together, SO_2 and NO_X are the major precursors to acidic deposition (acid rain), which is associated with the acidification of soils, lakes, and streams and accelerated corrosion of buildings and monuments. SO_2 also is a major precursor to PM2.5, which is a significant health concern, and a main contributor to poor visibility.

Lead

Lead (Pb) is a naturally occurring bluish-gray metal found in small amounts in the earth's crust. Lead can be found in all parts of our environment. Much of it comes from human activities including burning fossil fuels, mining, and manufacturing. Lead has many different uses. It is used in the production of batteries, ammunition, metal products (solder and pipes), and devices to shield X-rays. Because of health concerns, lead from paints and ceramic products, caulking, and pipe solder has been dramatically reduced in recent years. The use of lead as an additive to gasoline was banned in 1996 in the United States.

Exposure to lead occurs mainly through inhalation of air and ingestion of lead in food, water, soil, or dust. The effects of lead are the same regardless of the path of exposure. Lead can affect almost every organ and system in your body. The main target for lead toxicity is the nervous system, both in adults and children. Long-term exposure of adults can result in decreased performance in some tests that measure functions of the nervous system. It may also cause weakness in fingers, wrists, or ankles.

Lead exposure also causes small increases in blood pressure, particularly in middle-aged and older people and can cause anemia. Exposure to high lead levels can severely damage the brain and kidneys in adults or children and ultimately cause death. In pregnant women, high levels of exposure to lead may cause miscarriage. High level exposure in men can damage the organs responsible for sperm production.

Exposure to lead is more dangerous for young and unborn children. Unborn children can be exposed to lead through their mothers. Harmful effects include premature births, smaller babies, decreased mental ability in the infant, learning difficulties, and reduced growth in young children. These effects are more common if the mother or baby was exposed to high levels of lead. Some of these effects may persist beyond childhood (Agency for Toxic Substances & Disease Registry [ATSDR] 2007).

Hydrogen Sulfide

Hydrogen Sulfide (H_2S) is a colorless gas with the odor of rotten eggs. H2S occurs naturally and is also produced by human activities. H2S occurs naturally in crude petroleum, natural gas, volcanic gases, and hot springs. It can also result during bacterial decomposition of sulfur-containing organic substances. Emissions of H2S associated with human activities including various industrial activities, such as oil and gas production, refining, sewage treatment plants, food processing, and confined animal feeding operations.

Studies in humans suggest that the respiratory tract and nervous system are the most sensitive targets of H_2S toxicity. Exposure to low concentrations of H2S may cause irritation to the eyes, nose, or throat. It may also cause difficulty in breathing for some asthmatics. Respiratory distress or arrest has been observed in people exposed to very high concentrations of H_2S. Exposure to low concentrations of H2S may cause headaches, poor memory, tiredness, and balance problems. Brief exposures to high concentrations of H_2S can cause loss of consciousness. In most cases, the person appears to regain consciousness without any other effects. However, in some individuals, there may be permanent or long-term effects such as headaches, poor attention span, poor memory, and poor motor function. H_2S is extremely hazardous in high concentrations, especially in enclosed spaces. In some instances, exposure to high concentrations can cause death (ATSDR 2007b).

Other Pollutants

The State of California has established air quality standards for some pollutants not addressed by Federal standards. The CARB has established State standards for hydrogen sulfide, sulfates, vinyl chloride, and visibility reducing particles. Below is a summary of these pollutants and a description of the pollutants' physical properties, health and other effects, sources, and the extent of the problems.

Sulfates

Sulfates (SO_4) are the fully oxidized ionic form of sulfur. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to SO_2 during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO_2 to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features.

The CARB sulfates standard is designed to prevent aggravation of respiratory symptoms. Effects of sulfate exposure at levels above the standard include a decrease in ventilator function, aggravation of asthmatic symptoms, and an increased risk of cardio-pulmonary disease. Sulfates are particularly effective in degrading visibility, and, because they are usually acidic, can harm ecosystems and damage materials and property.

Visibility Reducing Particles

Visibility Reducing Particles are a mixture of suspended particulate matter consisting of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. The standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

Vinyl Chloride

Vinyl Chloride is a colorless gas that does not occur naturally. It is formed when other substances such as trichloroethane, trichloroethylene, and tetrachloro-ethylene are broken down. Vinyl chloride is used to make polyvinyl chloride which is used to make a variety of plastic products, including pipes, wire and cable coatings, and packaging materials.

3.1.3 Odors

Typically, odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from the psychological (i.e. irritation, anger, or anxiety) to the physiological, including circulatory and respiratory effects, nausea, vomiting, and headache.

The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals can smell very minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor and in fact an odor that is offensive to one person may be perfectly acceptable to another (e.g., fast food restaurant). It is important to also note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word strong to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

Neither the state nor the federal governments have adopted rules or regulations for the control of odor sources. The SJVAPCD does not have an individual rule or regulation that specifically addresses odors; however, odors would be subject to SJVAPCD Rule 4102, Nuisance. Any actions related to odors would be based on citizen complaints to local governments and the SJVAPCD.

3.1.4 Toxic Air Contaminants

TACs are air pollutants that may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air, but due to their high toxicity, they may pose a threat to public health even at very low concentrations. Because there is no threshold level below which adverse health impacts are not expected to occur, TACs differ from criteria pollutants for which acceptable levels of exposure can be determined and for which state and federal governments have set ambient air quality standards. TACs, therefore, are not considered “criteria pollutants” under either the FCAA or the California Clean Air Act (CCAA) and are thus not subject to National or California ambient air quality standards (NAAQS and CAAQS, respectively). Instead, the EPA and the CARB regulate Hazardous Air Pollutants (HAPs) and TACs, respectively, through statutes and regulations that generally require the use of the maximum or best available control technology (BACT) to limit emissions. In conjunction with District rules, these federal and state statutes and regulations establish the regulatory framework for TACs. At the national levels, the EPA has established National Emission Standards for HAPs (NESHAPs), in accordance with the requirements of the FCAA and subsequent amendments. These are technology-based source-specific regulations that limit allowable emissions of HAPs.

Within California, TACs are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a formal procedure for CARB to designate substances as TACs. The following provides a summary of the primary TACs of concern within the State of California and related health effects:

Diesel Particulate Matter

Diesel Particulate Matter (DPM) was identified as a TAC by the CARB in August 1998. DPM is emitted from both mobile and stationary sources. In California, on-road diesel-fueled vehicles contribute approximately 42% of the statewide total, with an additional 55% attributed to other mobile sources such as construction and mining equipment, agricultural equipment, and transport refrigeration units. Stationary sources, contributing about 3% of emissions, include shipyards, warehouses, heavy equipment repair yards, and oil and gas production operations. Emissions from these sources are from diesel-fueled internal combustion engines. Stationary sources that report DPM emissions also include heavy construction, manufacturers of asphalt paving materials and blocks, and diesel-fueled electrical generation facilities (CARB 2013).

In October 2000, the CARB issued a report entitled: Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles, which is commonly referred to as the Diesel Risk Reduction Plan (DRRP). The DRRP provides a mechanism for combating the DPM problem. The goal of the DRRP is to reduce concentrations of DPM by 85% by the year 2020, in comparison to year 2000 baseline emissions. The key elements of the DRRP are to clean up existing engines through engine retrofit emission control devices, to adopt stringent standards for new diesel engines, and to lower the sulfur content of diesel fuel to protect new, and very effective, advanced technology emission control devices on diesel engines. When fully implemented, the DRPP will significantly reduce emissions from both old and new diesel fueled motor vehicles and from stationary sources that burn diesel fuel. In addition to these strategies, the CARB continues to promote the use of alternative fuels and electrification. As a result of these actions, DPM concentrations and associated health risks in future years are projected to decline (CARB 2013). In comparison to year 2010 inventory of statewide DPM emissions, CARB estimates that emissions of DPM in 2035 will be reduced by more than 50%.

DPM is typically composed of carbon particles (“soot”, also called black carbon) and numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene. Diesel exhaust also contains gaseous pollutants, including volatile organic compounds and NOx. NOx emissions from diesel engines are important because they can undergo chemical reactions in the atmosphere leading to formation of PM2.5 and ozone.

In California, diesel exhaust particles have been identified as a carcinogen accounting for an estimated 70% of the total known cancer risks in California. DPM is estimated to increase statewide cancer risk by 520 cancers per million residents exposed over an estimated 70-year lifetime. Non- cancer health effects associated with exposure to DPM include premature death, exacerbated chronic heart and lung disease, including asthma, and decreased lung function in children. Short-term exposure to diesel exhaust can also have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks (CARB 2016b).

Individuals most vulnerable to non-cancer health effects of DPM are children whose lungs are still developing and the elderly who often have chronic health problems. The elderly and people with emphysema, asthma, and chronic heart and lung disease are especially sensitive to DPM (CARB 2016b). In addition to its health effects, DPM significantly contributes to haze and reduced visibility.

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 constructed prior to its ban for use in buildings in 1977. Exposure to naturally occurring asbestos can occur during soil disturbing activities in areas with deposits present.

3.1.5 Valley Fever

Valley Fever is an infection caused by a fungus that lives in the soil. About 10,000 U.S. cases are reported each year, mostly from Arizona and California. Valley fever can be misdiagnosed because its symptoms are like those of other illnesses.

The fungus that causes Valley fever, Coccidioides, is found in the southwestern United States, parts of Mexico and Central America, and parts of South America. The fungus grows naturally and is endemic in many areas along the southwestern region of Tulare County. People can get this infection by breathing in fungal spores from the air, especially when the wind blows the soil with the fungal spores into the air or the dirt is moved by human activity. About 40% of the people who come into contact with the fungal spores will develop symptoms that may require medical treatment and the symptoms will not go away on their own. Some people may develop a more severe infection, especially those with compromised immune systems (Centers for Disease Control and Prevention [CDC] 2020).

3.1.6 Attainment Status

The United States EPA and CARB 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 standard for PM2.5 is met if the 3-year average of the annual average PM2.5 concentration is less than or equal to the standard.

The current attainment designations for the SJVAB are shown in Table 2. The SJVAB is designated as nonattainment for ozone, PM10, and PM2.5.

Table 2: San Joaquin Valley Air Basin Attainment Status

Pollutant	Designation/Classification	
	Federal Standards[a]	State Standards[b]
Ozone – One hour	No Federal Standard[f]	Nonattainment/Severe
Ozone – Eight Hour	Nonattainment/Extreme[e]	Nonattainment
PM_{10}	Attainment[c]	Nonattainment
$PM_{2.5}$	Nonattainment[d]	Nonattainment
Carbon Monoxide	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment
Lead	No Designation/Classification	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	Attainment

Notes:

a See 40 CFR Part 81

b See CCR Title 17 Sections 60200-60210

c On September 25, 2008, EPA redesignated the San Joaquin Valley to attainment for the PM10 National Ambient Air Quality Standard (NAAQS) and approved the PM10 Maintenance Plan.

d The Valley is designated nonattainment for the 1997 PM2.5 NAAQS. EPA designated the Valley as nonattainment for the 2006 PM2.5 NAAQS on November 13, 2009 (effective December 14, 2009).

e Though the Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard, EPA approved Valley reclassification to extreme nonattainment in the Federal Register on May 5, 2010 (effective June 4, 2010).

f Effective June 15, 2005, the U.S. Environmental Protection Agency (EPA) revoked the federal 1-hour ozone standard, including associated designations and classifications. EPA had previously classified the SJVAB as extreme nonattainment for this standard. EPA approved the 2004 Extreme Ozone Attainment Demonstration Plan on March 8, 2010 (effective April 7, 2010). Many applicable requirements for extreme 1-hour ozone nonattainment areas continue to apply to the SJVAB.

Source: SJVAPCD 2021

3.1.7 Ambient Air Quality

The local air quality can be evaluated by reviewing relevant air pollution concentrations near the Project. Table 3 summarizes published monitoring data for the most recent three-year period available from the nearest monitoring station at 1839 S. Newcomb Street Porterville, California, approximately 4.01 miles south of the project site. The data shows that during the past few years, the SJVAB has exceeded the ozone, PM10, and PM2.5 standards.

Table 3: Ambient Air Quality Summary

Air Pollutant	Averaging Time	Item	2017	2018	2019
Ozone	1 Hour[a]	Max 1 Hour (ppm)	0.100	0.093	0.081
		Days > State Standard (0.09 ppm)	4	0	0
	8 Hour	Max 8 Hour (ppm)	0.090	0.085	0.073
		Days > State Standard (0.070 ppm)	34	38	7
		Days > National Standard (0.070 ppm)	97	97	94
		Days > National Standard (0.075 ppm)	96	97	92
Carbon Monoxide	8 Hour	Max 8 Hour (ppm)	X	X	X
		Days > State Standard (9.0 ppm)	X	X	X
		Days > National Standard (9.0 ppm)	X	X	X
Nitrogen dioxide	Annual	Annual Average (ppm)	X	X	X
	1 Hour	Max 1 Hour (ppm)	58	63	64
		Days > State Standard (0.18 ppm)	0	0	0
Sulfur dioxide	Annual	Annual Average (ppm)	X	X	X
	24 Hour	Max 24 Hour (ppm)	X	X	X
		Days > State Standard (0.04 ppm)	X	X	X
Inhalable coarse particles (PM10)	Annual (National)	Annual Average (µg/m^3)	X	X	X
	Annual (State)	Annual Average (µg/m^3)	X	X	X
	24 hour	24 Hour (µg/m^3) National	X	X	X
		24 Hour (µg/m^3) State	X	X	X
		Days > State Standard (50 µg/m3)	X	X	X
		Days > National Standard (150 µg/m^3)	X	X	X
Fine particulate matter (PM2.5)	Annual (National)	Annual Average (µg/m^3)	ID	ID	ID
	Annual (State)	Annual Average (µg/m^3)	ID	16.4	ID
	24 Hour	24 Hour (µg/m^3) National	ID	ID	ID
		24 Hour (µg/m^3) State	ID	ID	ID

<table>
<tr><td></td><td></td><td>Days > National Standard (35 µg/m^3)</td><td>ID</td><td>ID</td><td>ID</td></tr>
<tr><td colspan="6">Notes:
> = exceed
ppm = parts per million
g/m3 = micrograms per cubic meter
a = The Federal 1 hour Ozone Standard was revoked in June 2005; California retained a 1 hour Ozone Standard
ID = insufficient data
X = No data available because concentrations are no longer monitored
max = maximum
Bold = exceedance
State Standard = CAAQS
National Standard = NAAQS
Sulfur dioxide is reported on a statewide basis as it is no longer monitored locally
Sources: CARB 2018a</td></tr>
</table>

The health impacts of the various air pollutants of concern can be presented in several ways. The clearest in comparison is to 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 the standard is exceeded. Based on the air quality monitoring data, between 27 and 47 unhealthy ozone air days and up to 90 days with unhealthy PM10 levels and up to 27 days with unhealthy PM2.5 levels.

Unhealthy air quality levels can pose a risk to those most sensitive to air pollution such as the elderly, asthmatics, children, etc. The higher the air pollution levels rise the greater the population it affects.

3.1.8 Local Sources of Air Pollution

The Project's site is located in a predominately urban setting with agricultural uses to the northwest., The main sources of air pollution are mobile sources traveling along the nearby roadways that surround the Project site. Nearby sources of air pollution include emissions from vehicles on North Westfield Avenue, North Lombardi Street, and North Westwood Street.

3.1.9 Sensitive Receptors

Those who are sensitive to air pollution include children, the elderly, and persons with pre-existing respiratory or cardiovascular illness. For purposes of CEQA, the SJVAPCD 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 project site is located within 1,000 feet from existing sensitive receptors that could be exposed to diesel emission exhaust during the construction and operational periods. The nearest sensitive receptors are residents occupying the single-family houses adjacent to the project site to the east, south, and west. In addition, the Summit Charter Academy Lombardi Campus lies immediately north of the project site and the lot on which is lies will be annexed into the project site. Additionally, William R. Buckley Elementary School lies approximately 750 feet southwest of the project site.

3.2 REGULATORY SETTING

Air quality within the project area is regulated by several jurisdictions including the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and the San Joaquin Valley Air Pollution Control District (SJVAPCD). Each of these jurisdictions develops rules, regulations, and policies to attain the goals or directives imposed upon them through legislation. Although EPA regulations may not be superseded, both state and local regulations may be more stringent.

3.2.1 Federal

U.S. Environmental Protection Agency

At the federal level, the EPA has been charged with implementing national air quality programs. The EPA's air quality mandates are drawn primarily from the FCAA, which was signed into law in 1970. Congress substantially amended the FCAA in 1977 and again in 1990.

Federal Clean Air Act

The FCAA required the EPA to establish NAAQS, and also set deadlines for their attainment. Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect public welfare from non-health-related adverse effects, such as visibility restrictions. NAAQS are summarized in Table 4.

National Emission Standards for Hazardous Air Pollutants

Pursuant to the FCAA of 1970, the EPA established the NESHAPs. These are technology-based source-specific regulations that limit allowable emissions of HAPs. Among these sources include asbestos-containing building materials (ACBMs). NESHAPs include requirements pertaining to the inspection, notification, handling, and disposal of ACBMs associated with the demolition and renovation of structures.

3.2.2 State

California Air Resources Board

The CARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the CCAA of 1988. Other CARB duties include monitoring air quality (in conjunction with air monitoring networks maintained by air pollution control districts and air quality management districts), establishing California Ambient Air Quality Standards (CAAQS), which in many cases are more stringent than the NAAQS, and setting emissions standards for new motor vehicles. The emission standards established for motor vehicles differ depending on various factors including the model year, and the type of vehicle, fuel and engine used. The CAAQS are summarized in Table 1.

California Clean Air Act

The CCAA requires that all air districts in the state endeavor to achieve and maintain CAAQS for O_3, CO, SO_2, and NO_2 by the earliest practical date. The CCAA specifies that districts focus attention on reducing the emissions from transportation and area-wide emission sources, and the act provides districts with authority to regulate indirect sources. Each district plan is required to either (1) achieve a 5% annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each non-attainment pollutant or its precursors, or (2) to provide for implementation of all feasible measures to reduce emissions. Any planning effort for air quality attainment would thus need to consider both state and federal planning requirements.

Assembly Bills 1807 & 2588 - Toxic Air Contaminants

Within California, TACs are regulated primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics Hot Spots Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB designates a substance as a TAC.

Existing sources of TACs that are subject to the Air Toxics Hot Spots Information and Assessment Act are required to: (1) prepare a toxic emissions inventory; (2) prepare a risk assessment if emissions are significant; (3) notify the public of significant risk levels; and (4) prepare and implement risk reduction measures.

Assembly Bill 617

In response to AB 617 (C. Garcia, Chapter 136, Statutes of 2017), the CARB established the Community Air Protection Program. The Community Air Protection Program includes community air monitoring and community emissions reduction program's focus is to reduce exposure in communities most impacted by air pollution. The Legislature has appropriated funding to support early actions to address localized air pollution through targeted incentive funding to deploy cleaner technologies in these communities, as well as grants to support community participation in the AB 617 process. AB 617 also includes new requirements for accelerated retrofit of pollution controls on industrial sources, increased penalty fees, and greater transparency and availability of air quality and emissions data, which will help advance air pollution control efforts throughout the State.

Portable Equipment Registration Program

Owners or operators of portable engines and certain other types of equipment can register their units under the CARB's Statewide Portable Equipment Registration Program (PERP). PERP allows registered equipment to be operated throughout California without having to obtain individual permits from local air districts. To qualify, equipment must meet eligibility requirements, including applicable emissions standards.

Naturally-Occurring Asbestos Regulations

CARB has adopted two Airborne Toxic Control Measures (ATCMs) which regulates the control of Naturally Occurring Asbestos (NOA) associated with construction, surfacing, grading, mining, and quarrying activities. The NCUAQMD is responsible for enforcing Asbestos ATCMs. There are no known likely areas of NOA in the Project area (USGS 2011).

Regulatory Attainment Designations

Under the CCAA, CARB is required to designate areas of the state as attainment, nonattainment, or unclassified with respect to applicable standards. An "attainment" designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A "nonattainment" designation indicates that a pollutant concentration violated the applicable standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. Depending on the frequency and severity of pollutants exceeding applicable standards, the nonattainment designation can be further classified as serious nonattainment, severe nonattainment, or extreme nonattainment, with extreme nonattainment being the most severe of the classifications. An "unclassified" designation signifies that the data does not support either an attainment or nonattainment designation. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The EPA designates areas for O_3, CO, and NO_2 as "does not meet the primary standards," "cannot be classified," or "better than national standards." For SO_2, areas are designated as "does not meet the primary standards," "does not meet the secondary standards," "cannot be classified," or "better than national standards." However, CARB terminology of attainment, nonattainment, and unclassified is more frequently used. The EPA uses the same sub-categories for nonattainment status: serious, severe, and extreme. In 1991, EPA assigned new nonattainment designations to areas that had previously been classified as Group I, II, or III for PM_{10} based on the likelihood that they would violate national PM_{10} standards. All other areas are designated "unclassified."

As discussed previously, the SJVAB is designated as nonattainment for the federal ozone and $PM_{2.5}$ standards. The SJVAB is nonattainment for State ozone, PM10, and $PM_{2.5}$ standards.

3.2.3 Regional

San Joaquin Valley Air Pollution Control District

The SJVAPCD is the agency primarily responsible for ensuring that NAAQS and CAAQS are not exceeded and that air quality conditions are maintained in the SJVAB, within which the proposed project is located. Responsibilities of the SJVAPCD include, but are not limited to, preparing plans for the attainment of ambient air quality standards, adopting and enforcing rules and regulations concerning sources of air pollution, issuing permits for stationary sources of air pollution, inspecting stationary sources of air pollution and responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing programs and regulations required by the FCAA and the CCAA.

SJVAPCD Rules and Regulations

The SJVAPCD rules and regulations that may apply to projects that will occur during buildout of the project include but are not limited to the following:

Rule 2010 – Permits Required. The purpose of this rule is to require any person constructing, altering, replacing or operating any source operation which emits, may emit, or may reduce emissions to obtain an Authority to Construct or a Permit to Operate. This rule also explains the posting requirements for a Permit to Operate and the illegality of a person willfully altering, defacing, forging, counterfeiting or falsifying any Permit to Operate.

Rule 2201 – New and Modified Stationary Source Review Rule. The purpose of this rule is to provide for the following:

- 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; and

- No net increase in emissions above specified thresholds from new and modified Stationary Sources of all nonattainment pollutants and their precursors.

Rule 4002 – National Emission Standards for Hazardous Air Pollutants. This rule incorporates the National Emission Standards for Hazardous Air Pollutants from Part 61, Chapter I, Subchapter C, Title 40, Code of Federal Regulations (CFR) 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 (CFR).

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.

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.

Rule 4623 – Storage of Organic Liquids. The purpose of this rule is to limit volatile organic compound (VOC) emissions from the storage of organic liquids.

Rule 4624 – Transfer of Organic Liquids. The purpose of this rule is to limit volatile organic compound (VOC) emissions from the transfer of organic liquids.

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.

Regulation VIII – Fugitive PM10 Prohibitions. Rule 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.

Rule 9510 – Indirect Source Review. This rule reduces the impact of NOx and PM10 emissions from growth on the Air Basin. The rule places application and emission reduction requirements on development projects meeting applicability criteria to reduce emissions through onsite mitigation, offsite District -administered projects, or a combination of the two. This project must comply with Rule 9510 because it would develop more than 2,000 square feet of commercial space.

CEQA

The SJVAPCD has three roles under CEQA:

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.

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 comments on documents prepared by Lead Agencies to ensure that District concerns are addressed.

Commenting Agency: The District reviews and comments on air quality analyses prepared by other public agencies (such as the project).

The SJVAPCD 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 SJVAPCD'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.

3.2.4 Local

The City of Porterville General Plan's Open Space and Conservation Element includes the following policies related to air quality that are applicable to the proposed project.

OSC-G-9: Improve and protect Porterville's air quality by making air quality a priority in land use and transportation planning and in development review.

OSC-I-58: Continue to assess air quality impacts through environmental review and require developers to implement best management practices to reduce air pollutant emissions associated with the construction and operation of development projects.

The City will use the San Joaquin Valley Air Pollution Control District (SJVAPCD) Guidelines for Assessing and Mitigating Air Quality Impacts for determining and mitigating project air quality impacts and related thresholds of significance for use in environmental documents. The City shall cooperate with the SJVAPCD in the review of development proposals.

BMPs could include transportation demand management strategies for large development projects such as:

- Providing bicycle access and parking facilities;
- Providing preferential parking for high-occupancy vehicles, carpools, or alternative fuels vehicles;
- Establishing telecommuting programs or satellite work centers;
- Allowing alternative work schedules;
- Subsidizing public transit costs for employee; and
- Scheduling deliveries at off-peak traffic periods.

OSC-I-59: Require preparation of a Health Risk Assessment for any development subject to the Air Toxics "Hot Spots" Act.

OSC-I-60: Require dust control measures as a condition of approval for subdivision maps, site plans, and all grading permits.

OSC-I-61: Coordinate air quality planning efforts with other local, regional and State agencies.

OSC-I-63: Notify local and regional jurisdictions of proposed projects that may affect regional air quality.

4.0 GREENHOUSE GAS

4.1 ENVIRONMENTAL SETTING

To fully understand global climate change, it is important to recognize the naturally occurring "greenhouse effect" and to define the GHGs that contribute to this phenomenon. Various gases in the earth's atmosphere, classified as atmospheric GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space and a portion of the radiation is absorbed by the earth's surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. GHGs, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect.

4.1.1 Local

Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide, methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Primary GHGs attributed to global climate change, are discussed in the following subsections.

Carbon Dioxide

Carbon dioxide (CO_2) is a colorless, odorless gas. CO_2 is emitted in a number of ways, both naturally and through human activities. The largest source of CO_2 emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO_2 emissions. The atmospheric lifetime of CO_2 is variable because it is so readily exchanged in the atmosphere (EPA 2019b).

Methane

CH_4 is a colorless, odorless gas that is not flammable under most circumstances. CH_4 is the major component of natural gas, about 87% by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. CH_4 is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (enteric fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of methane to the atmosphere. Natural sources of methane include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of CH_4 is about 12 years (EPA 2019b).

Nitrous Oxide

N_2O is a clear, colorless gas with a slightly sweet odor. N_2O is produced by both natural and human-related sources. Primary human-related sources of N_2O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N_2O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is approximately 120 years (EPA 2017b).

Hydrofluorocarbons

HFCs are man-made chemicals, many of which have been developed as alternatives to ozone-depleting substances for industrial, commercial, and consumer products. The only significant emissions of HFCs before 1990 were of the chemical HFC-23, which is generated as a byproduct of the production of HCFC-22 (or Freon 22, used in air conditioning applications). The atmospheric lifetime for HFCs varies from just over a year for HFC-152a to 260 years for HFC-23. Most of the commercially used HFCs have atmospheric lifetimes of less than 15 years (e.g., HFC-134a, which is used in automobile air conditioning and refrigeration, has an atmospheric life of 14 years) (EPA 2017b).

Perfluorocarbons

PFCs are colorless, highly dense, chemically inert, and nontoxic. There are seven PFC gases: perfluoromethane (CF_4), perfluoroethane (C_2F_6), perfluoropropane (C_3F_8), perfluorobutane (C_4F_{10}), perfluorocyclobutane (C_4F_8), perfluoropentane (C_5F_{12}), and perfluorohexane (C_6F_{14}). Natural geological emissions have been responsible for the PFCs that have accumulated in the atmosphere in the past; however, the largest current source is aluminum production, which releases CF_4 and C_2F_6 as byproducts. The estimated atmospheric lifetimes for CF_4 and C_2F_6 are 50,000 and 10,000 years, respectively (EPA 2017b).

Nitrogen Trifluoride

Nitrogen trifluoride (NF_3) is an inorganic, colorless, odorless, toxic, nonflammable gas used as an etchant in microelectronics. NF_3 is predominantly employed in the cleaning of the plasma-enhanced chemical vapor deposition chambers in the production of liquid crystal displays and silicon-based thin film solar cells. In 2009, NF_3 was listed by

California as a potential GHG to be listed and regulated under AB 32 (Section 38505 Health and Safety Code).

Sulfur Hexafluoride

SF_6 is an inorganic compound that is colorless, odorless, nontoxic, and generally nonflammable. SF_6 is primarily used as an electrical insulator in high voltage equipment. The electric power industry uses roughly 80% of all SF_6 produced worldwide. Leaks of SF_6 occur from aging equipment and during equipment maintenance and servicing. SF_6 has an atmospheric life of 3,200 years (EPA 2017b).

Black Carbon

Black carbon is the most strongly light-absorbing component of PM emitted from burning fuels such as coal, diesel, and biomass. Black carbon contributes to climate change both directly by absorbing sunlight and indirectly by depositing on snow and by interacting with clouds and affecting cloud formation. Black carbon is considered a short-lived species, which can vary spatially and, consequently, it is very difficult to quantify associated global-warming potentials. The main sources of black carbon in California are wildfires, off-road vehicles (locomotives, marine vessels, tractors, excavators, dozers, etc.), on-road vehicles (cars, trucks, and buses), fireplaces, agricultural waste burning, and prescribed burning (planned burns of forest or wildlands). California has been an international leader in reducing emissions of black carbon, including programs that target reducing PM from diesel engines and burning activities (CARB 2013).

4.1.2 Global Warming Potential

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO_2e), which weight each gas by its global warming potential (GWP).

Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted. Based on a 100-year time horizon, Methane traps over 25 times more heat per molecule than CO_2, and N_2O absorbs roughly 298 times more heat per molecule than CO_2. Additional GHGs with high GWP include NF_3, SF_6, PFCs, and black carbon.

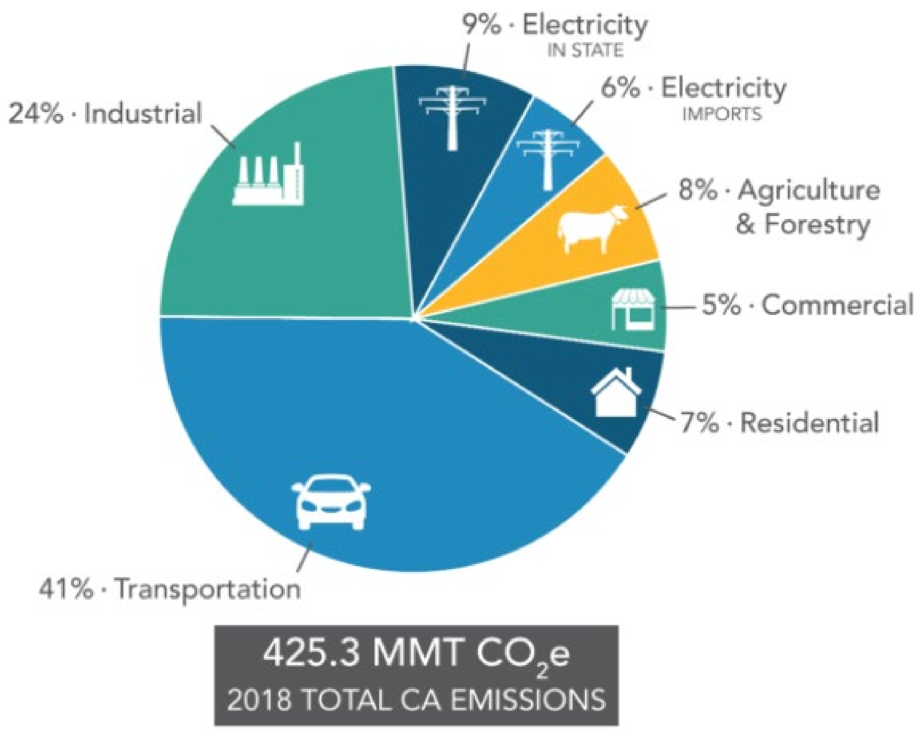
4.1.3 Sources of Greenhouse Gas Emissions

On a global scale, GHG emissions are predominantly associated with activities related to energy production; changes in land use, such as deforestation and land clearing;

industrial sources; agricultural activities; transportation; waste and wastewater generation; and commercial and residential land uses. World-wide, energy production including the burning of coal, natural gas, and oil for electricity and heat is the largest single source of global GHG emissions.

California's most recent GHG emissions inventory is depicted in Figure 2.

Figure 2: GHG Emissions by Economic Sector



Source: CARB 2018

In 2018, GHG emissions within California totaled 425.3 million metric tons (MMT) of CO_2e. Within California, the transportation sector is the largest contributor, accounting for approximately 41% of the total statewide GHG emissions. Emissions associated with industrial uses are the second largest contributor, totaling roughly 24%. Electricity generation totaled roughly 15% (CARB 2018).

4.1.4 Effects of Global Climate Change

There are uncertainties as to exactly what the climate changes will be in various local areas of the earth. There are also uncertainties associated with the magnitude and timing of other consequences of a warmer planet: sea level rise, spread of certain diseases out of their usual geographic range, the effect on agricultural production, water supply, sustainability of ecosystems, increased strength and frequency of storms, extreme heat events, increased air pollution episodes, and the consequence of these effects on the economy.

Within California, climate changes would likely alter the ecological characteristics of many ecosystems throughout the state. Such alterations would likely include increases in surface temperatures and changes in the form, timing, and intensity of precipitation. For instance, historical records are depicting an increasing trend toward earlier snowmelt in the Sierra Nevada. This snowpack is a principal supply of water for the state, providing roughly 50% of state's annual runoff. If this trend continues, some areas of the state may experience an increased danger of floods during the winter months and possible exhaustion of the snowpack during spring and summer months. An earlier snowmelt would also impact the state's energy resources. An early exhaustion of the Sierra snowpack may force electricity producers to switch to more costly or non-renewable forms of electricity generation during spring and summer months. A changing climate may also impact agricultural crop yields, coastal structures, and biodiversity. As a result, resultant changes in climate will likely have detrimental effects on some of California's largest industries, including agriculture, wine, tourism, skiing, recreational and commercial fishing, and forestry.

4.2 REGULATORY SETTING

4.2.1 Federal

U.S. Environmental Protection Agency "Endangerment" and "Cause or Contribute" Findings

On April 2, 2007, in *Massachusetts v. USEPA*, 549 US 497, the Supreme Court found that GHGs are air pollutants covered by the Clean Air Act (CAA). The Court held that the Unites States Environmental Protection Agency (USEPA) must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the USEPA is required to follow the language of Section 202(a) of the CAA.

On April 17, 2009, the USEPA Administrator signed proposed "endangerment" and "cause or contribute" findings for GHGs under Section 202(a) of the CAA. The USEPA held a 60-day public comment period, considered public comments, and issued final findings. The USEPA found that six GHGs taken in combination endanger both the public health and the public welfare of current and future generations. The USEPA also found that the combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to the greenhouse effect as air pollution that endangers public health and welfare under CAA Section 202(a).

Clean Vehicles

In collaboration with the National Highway Traffic Safety Administration, the USEPA adopted GHG emission standards for light-duty vehicles in May 2010 and for heavy-duty vehicles in August of 2011. In 2012, the agencies jointly adopted more stringent Phase 2 standards for light duty cars and trucks, which would cover model years 2017 through 2025. In August of 2016, the agencies adopted more stringent Phase 2 standards for medium- and heavy-duty vehicles, which would cover model years 2018 through 2027 for certain trailers and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks.

Mandatory Greenhouse Gas Reporting Rule

On September 22, 2009, the EPA released its final Greenhouse Gas Reporting Rule (Reporting Rule). The Reporting Rule is a response to the fiscal year 2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110-161), that required the EPA to develop "…mandatory reporting of GHGs above appropriate thresholds in all sectors of the economy…." The Reporting Rule applies to most entities that emit 25,000 metric tons of CO_2e ($MTCO_2e$) or more per year. Since 2010, facility owners must submit an annual GHG emissions report with detailed calculations of facility GHG emissions. The Reporting Rule also mandates recordkeeping and administrative requirements in order for the EPA to verify annual GHG emissions reports.

New Source Review

The EPA issued a final rule on May 13, 2010 that establishes thresholds for GHGs, which will define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule "tailors" the requirements of these Clean Air Act permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits.

The EPA estimates that facilities responsible for nearly 70 percent of the national GHG emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation's largest GHG emitters—power plants, refineries, and cement production facilities.

Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units

As required by a settlement agreement, the EPA proposed new performance standards for emissions of carbon dioxide for new, affected, fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatts would be required to meet an output based standard of 1,000 pounds of carbon dioxide per megawatt-hour, based on the performance of widely used natural gas combined cycle technology.

President Obama and the EPA announced the Clean Power Plan in August of 2015. In 2030, the Clean Power Plan would cut carbon pollution from power plants by 32 percent below 2005 levels and increase renewable energy generation percent to nearly 20 percent of all power supplied. By comparison, in 2015, renewable energy accounted for about 13% of electricity generation. However, on February 9, 2016, the U.S. Supreme Court stayed implementation of the Clean Power Plan pending judicial review and on March 28, 2017, the Executive Order on Energy Independence (EO 13783) was signed and called for a review of the Clean Power Plan (USEPA 2018a). On October 16, 2017, the EPA issued the proposed rule Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units an Energy Independence (EPA 2017).

Cap-and-Trade

Cap-and-Trade refers to a policy tool where emissions are limited to a certain amount and can be traded or provides flexibility on how the emitter can comply. There is no federal GHG Cap-and-Trade program currently; however, some states have joined to create initiatives to provide a mechanism for Cap-and-Trade.

The Regional Greenhouse Gas Initiative is an effort to reduce GHGs among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Each state caps carbon dioxide emissions from power plants, auctions carbon dioxide emission allowances, and invests the proceeds in strategic energy programs that further reduce emissions, save consumers money, create jobs, and build a clean energy economy. The Initiative began in 2008.

The Western Climate Initiative partner jurisdictions have developed a comprehensive initiative to reduce regional GHG emissions to 15 percent below 2005 levels by 2020. The partners are California, British Columbia, Manitoba, Ontario, and Quebec. Currently only California and Quebec are participating in the Cap-and-Trade program (C2ES 2015).

4.2.2 State

Assembly Bill 32

The California State Legislature enacted Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. "Greenhouse gases" as defined under AB 32 include CO_2, methane (CH_4), nitrogen oxides (NO_X), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride, has also been added to the list of GHGs. The California Air Resources Board (CARB) is the state agency charged with monitoring and regulating sources of GHGs. AB 32 states the following:

> *Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.*

CARB approved the 1990 GHG emissions level of 427 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) on December 6, 2007 (CARB 2007). Therefore, to meet the state's target, emissions generated in California in 2020 are required to be equal to or less than 427 $MMTCO_2e$. Emissions in 2020 in a business as usual (BAU) scenario were estimated to be 596 $MMTCO_2e$, which do not account for reductions from AB 32 regulations (CARB 2008). At that rate, a 28 percent reduction was required to achieve the 427 $MMTCO_2e$ 1990 inventory. In October 2010, CARB prepared an updated 2020 forecast to account for the effects of the 2008 recession and slower forecasted growth. The 2020 inventory without the benefits of adopted regulation is now estimated at 545 $MMTCO_2e$. Therefore, under the updated forecast, a 21.7 percent reduction from BAU is required to achieve 1990 levels (CARB 2010).

Progress in Achieving Assembly Bill 32 Targets and Remaining Reductions Required

The state has made steady progress in implementing AB 32 and achieving targets included in EO S-3-05. The progress is evident in updated emission inventories prepared by CARB, which showed that the state inventory dropped below 1990 levels for the first time in 2016 (CARB 2018). CARB's Climate Change Scoping Plan (Scoping Plan) (subsequently amended by the 2017 update) includes projections indicating that the state would meet or exceed the 2020 target with adopted regulations (CARB 2017).

CARB 2008 Scoping Plan

The Scoping Plan contains measures designed to reduce the state's emissions to 1990 levels by the year 2020 to comply with AB 32 (CARB 2008). The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 GHG target include the following:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33 percent;
- Developing a California Cap-and-Trade Program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. Capped strategies are subject to the proposed Cap-and-Trade Program. The Scoping Plan states that the inclusion of these emissions within the Cap-and-Trade Program would help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. Uncapped strategies that will not be subject to the cap-and-trade emissions caps, and requirements are provided as a margin of safety by accounting for additional GHG emission reductions (CARB 2008).

Cap-and-Trade Program

The Cap-and-Trade Program is a key element of the Scoping Plan. It sets a statewide limit on sources responsible for 85 percent of California's GHG emissions and establishes a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. The program is designed to provide covered entities the flexibility to seek out and implement the lowest cost options to reduce emissions. The program conducted its first auction in November 2012. Compliance obligations began for power plants and large industrial sources in January 2013. Other significant milestones include linkage to Quebec's Cap-and-Trade system in January 2014 and starting the compliance obligation for distributors of transportation fuels, natural gas, and other fuels in January 2015.

The Cap-and-Trade Program provides a firm cap, ensuring that the 2020 statewide emission limit would not be exceeded. An inherent feature of the Cap-and-Trade Program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are guaranteed only on an accumulative basis.

The Cap-and-Trade Program works with other direct regulatory measures and provides an economic incentive to reduce emissions. If California's direct regulatory measures reduce GHG emissions more than expected, then the Cap-and-Trade Program would be responsible for relatively fewer emissions reductions. If California's direct regulatory measures reduce GHG emissions less than expected, then the Cap-and-Trade Program would be responsible for relatively more emissions reductions. Thus, the Cap-and-Trade Program assures that California would meet its 2020 GHG emissions reduction mandate.

CARB approved the First Update to the Scoping Plan (Update) on May 22, 2014. The Update identified the next steps for California's climate change strategy. The Update shows how California continues on its path to meet the near-term 2020 GHG limit, but also sets a path toward long-term, deep GHG emission reductions. The report established a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050.

Assembly Bill 398

The Governor signed AB 398 on July 25, 2017, to extend the Cap-and-Trade Program to 2030.The legislation includes provisions to ensure that offsets used by sources are limited to 4 percent of their compliance obligation from 2021 to 2025 and 6 percent of their compliance obligation from 2026 through 2030. AB 398 also prevents air districts from adopting or implementing emission reduction rules from stationary sources that are also subject to the Cap-and-Trade Program (CARB 2017).

Senate Bill 32

Senate Bill (SB) 32 was signed into law on September 8, 2016. SB 32 gives CARB the statutory responsibility to include the 2030 target previously contained in EO B-30-15 in the 2017 Scoping Plan Update. SB 32 states that "In adopting rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions authorized by this division, the state [air resources] board shall ensure that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide greenhouse gas emissions limit no later than December 31, 2030."

2017 Climate Change Scoping Plan Update

The 2017 Climate Change Scoping Plan Update was adopted on December 14, 2017 amending the 2008 Scoping Plan and addresses the SB 32 targets. The major elements of the framework proposed to achieve the 2030 target are as follows:

1. SB 350
   a. Achieve 50 percent Renewables Portfolio Standard (RPS) by 2030.
   b. Doubling of energy efficiency savings by 2030.
2. Low Carbon Fuel Standard
   a. Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).
3. Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
   a. Maintaining existing GHG standards for light- and heavy-duty vehicles.
   b. Put 4.2 million zero-emission vehicles on the roads.
   c. Increase zero-emission vehicles buses and delivery and other trucks.
4. Sustainable Freight Action Plan
   a. Improve freight system efficiency.
   b. Maximize use of near-zero emission vehicles and equipment powered by renewable energy.
   c. Deploy over 100,000 zero-emission trucks and equipment by 2030.
5. Short-Lived Climate Pollutant Reduction Strategy
   a. Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030.
   b. Reduce emissions of black carbon 50 percent below 2013 levels by 2030.

6. SB 375 Sustainable Communities Strategies
    a. Increased stringency of 2035 targets.
7. Post-2020 Cap-and-Trade Program
    a. Declining caps, continued linkage with Québec, and linkage to Ontario, Canada.
    b. CARB will look for opportunities to strengthen the program to support more air quality co-benefits, including specific program design elements. In Fall 2016, CARB staff described potential future amendments including reducing the offset usage limit, redesigning the allocation strategy to reduce free allocation to support increased technology and energy investment at covered entities and reducing allocation if the covered entity increases criteria or toxics emissions over some baseline.
8. 20 percent reduction in GHG emissions from the refinery sector.
9. Develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Many of the measures included in the 2017 Climate Change Scoping Plan Update are implemented on a statewide level and do not specifically apply to the Project. However, the short-lived climate pollutants would be applicable to the Program through the use of cleaner construction equipment.

Senate Bill 375: The Sustainable Communities and Climate Protection Act of 2008

SB 375 was signed into law on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which emits more than 40 percent of the total GHG emissions in California. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the following: (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

CARB has prepared the Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets.

Assembly Bill 1493: Pavley Regulations and Fuel Efficiency Standards

AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations and fuel efficiency standards that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by USEPA's denial of an implementation waiver. USEPA subsequently granted the requested waiver in 2009, which was upheld by the by the U.S. District Court for the District of Columbia in 2011.

The standards were phased in during the 2009 through 2016 model years. When fully phased in, the near-term (2009–2012) standards resulted in an approximately 22 percent reduction compared with the 2002 fleet, and the mid-term (2013–2016) standards resulted in about a 30 percent reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation, rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.

The second phase of the implementation for AB 1493 was incorporated into Amendments to the Low-Emission Vehicle Program, referred to as LEV III or the Advanced Clean Cars program. The Advanced Clean Cars program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025. The regulation would reduce GHGs from new cars by 34 percent from 2016 levels by 2025. The rules would reduce pollutants from gasoline and diesel-powered cars and would deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid electric vehicles, and hydrogen fuel cell cars. The regulations would also ensure that adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California.

Senate Bill 1368: Emission Performance Standards

In 2006, the State Legislature adopted SB 1368, which was subsequently signed into law by the governor. SB 1368 directs the California Public Utilities Commission to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant.

Because of the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants. Accordingly, the new law effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the state. The California Public Utilities Commission adopted the regulations required by SB 1368 on August 29, 2007. The regulations implementing SB 1368 establish a standard for baseload generation owned by, or under long-term contract to publicly owned utilities, of 1,100 pounds of CO_2 per megawatt-hour (MWh).

Senate Bill 1078: Renewable Electricity Standards

On September 12, 2002, Governor Gray Davis signed SB 1078, requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed EO S-14-08, which established an RPS target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger signed EO S-21-09, which directed CARB to adopt a regulation by July 31, 2010, requiring the state's load serving entities to meet a 33 percent renewable energy target by 2020. CARB approved the Renewable Electricity Standard on September 23, 2010, by Resolution 10-23. In 2011, the State Legislature adopted this higher standard in SB X1-2. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas.

Senate Bill 350: Clean Energy and Pollution Reduction Act of 2015

The legislature approved and the governor then signed SB 350 on October 7, 2015, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the RPS, higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations.

Senate Bill 100: California Renewables Portfolio Standard Program.

The Governor approved SB 100 on September 10, 2018. The legislation revised the RPS goals to achieve the 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030. The bill would require that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours of those products sold to their retail end-use customers achieve 44 percent of retail sales by December 31, 2024; 52 percent by December 31, 2027; and 60 percent by December 31, 2030.

Senate Bill X7-7: The Water Conservation Act of 2009

SB X7-7 directs urban retail water suppliers to set individual 2020 per capita water use targets and to begin implementing conservation measures to achieve those goals. Meeting this statewide goal of 20 percent decrease in demand will result in a reduction of almost 2 million acre-feet of urban water use in 2020.

Executive Order S-3-05

On June 1, 2005, former California Governor Arnold Schwarzenegger announced EO S-3-05, which announced the following reduction targets for GHG emissions:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that would stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an EO, the goals are not legally enforceable for local governments or the private sector.

Executive Order B-30-15

On April 29, 2015, Governor Edmund G. Brown Jr. issued EO B-30-15 to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. The Governor's EO aligns California's GHG reduction targets with those of leading international governments ahead of the United Nations Climate Change Conference in Paris in late 2015. The EO sets a new interim statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 in order to ensure that California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050, and directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of $MMTCO_2e$. The EO also requires the state's climate adaptation plan to be updated every 3 years and for the state to continue its climate change research program, among other provisions. As with EO S-3-05, this EO is not legally enforceable against local governments and the private sector. Legislation that would update AB 32 to provide post-2020 targets was signed by the Governor in 2016. SB 32 includes a 2030 mandate matching the requirements of the EO.

Executive Order S-01-07: Low Carbon Fuel Standard

The governor signed EO S 01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the EO established a Low Carbon Fuel Standard (LCFS) and directed the Secretary for Environmental

Protection to coordinate the actions of the California Energy Commission, CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. This analysis supporting development of the protocols was included in the State Implementation Plan for alternative fuels (State Alternative Fuels Plan adopted by California Energy Commission on December 24, 2007) and was submitted to CARB for consideration as an "early action" item under AB 32. CARB adopted the Low Carbon Fuel Standard on April 23, 2009.

The LCFS was subject to legal challenge in 2011. Ultimately, CARB was required to bring a new LCFS regulation for consideration in February 2015. The proposed LCFS regulation was required to contain revisions to the 2010 LCFS as well as new provisions designed to foster investments in the production of the low-carbon fuels, offer additional flexibility to regulated parties, update critical technical information, simplify and streamline program operations, and enhance enforcement. The Office of Administrative Law approved the regulation on November 16, 2015. The regulation was last amended in 2018.

Executive Order S-13-08

EO S-13-08 states that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the EO, the 2009 California Climate Adaptation Strategy was adopted, which is the "… first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States." Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order B-55-18

EO B-55-18 issued by Governor Brown on September 10, 2018, establishes a new statewide goal to achieve carbon neutrality as soon as possible, but no later than 2045, and to achieve and maintain net negative emissions thereafter. The EO directs CARB to work with relevant state agencies to develop a framework for implementation and accounting that tracks progress toward this goal.

California Energy Code

Compliance with the California Energy Code (Title 24, Part 6, of the California Code of Regulations [CCR], California's Energy Efficiency Standards) and Title 20, Public Utilities and Energy, standards must occur for all new buildings constructed in

California. These efficiency standards apply to new construction of both residential and nonresidential (i.e., maintenance buildings and pump station buildings associated with the Program) buildings, and they regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit processes, and local government agencies may adopt and enforce energy standards for new buildings provided that these standards meet or exceed those provided in the Title 24 guidelines.

4.2.3 Regional

San Joaquin Valley Air Pollution Control District

On December 17, 2009, the San Joaquin Valley Air Pollution Control District (SJVAPCD) Governing Board adopted "Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA," and the policy "District Policy—Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency." SJVAPCD concluded that the existing science is inadequate to support quantification of the impacts that project-specific GHG emissions have on global climate change. SJVAPCD found the effects of project-specific emissions to be cumulative, and without mitigation, their incremental contribution to global climate change could be considered cumulatively considerable. SJVAPCD found that this cumulative impact is best addressed by requiring all projects to reduce their GHG emissions, whether through project design elements or mitigation.

5.0 ENERGY

5.1 ENVIRONMENTAL SETTING

Southern California Edison (SCE) provides electricity and The Southern California Gas Company (SoCal Gas) provides natural gas service to the City. Upon buildout of the project site, electricity to the project site would be provided by SCE. All electricity infrastructure would be located underground and would tie-in to existing infrastructure.

SCE serves approximately 15 million people in a 50,000 square-mile area of central, coastal, and Southern California. SCE's service area includes portions of 15 counties and hundreds of cities and communities, including Porterville. SCE has set the goal of delivering 100% carbon-free power to customers in terms of retail sales. In 2020, approximately 43 percent of retail sales came from carbon-free resources.

SoCal Gas is the nation's largest natural gas distribution utility serving more than 21 million consumers through nearly 5.9 million meters in more than 500 communities. SoCal Gas has committed to achieving net zero greenhouse gas emissions in their operations and gas delivery by 2045. In order to achieve this goal, SoCal Gas has set a number of internal standards including the goal of delivering 5% renewable natural gas by 2022 and 20% by 2030 (SoCal Gas, 2021).

5.2 REGULATORY SETTING

5.2.1 Federal

Federal Energy Policy and Conservation Act

The Energy and Policy Conservation Act was enacted by Congress in 1975. This Act established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration (NHTSA) is responsible for establishing additional vehicle standards.

Energy Independence and Security Act of 2007

This Act set increased Corporate Average Fuel Economy (CAFÉ) standards for motor vehicles and includes the following provisions related to energy efficiency:

- Renewable fuel standards (RFS)
- Appliance and lighting efficiency standards
- Building energy efficiency

This Act requires increasing levels of renewable fuels to replace petroleum. The U.S. EPA is responsible for developing and implementing regulations to ensure transportation fuel sold into the US contains a minimum volume of renewable fuel.

The RFS programs regulations were developed in collaboration with refiners, renewable fuel products, and other stakeholders and were created under the Energy Policy Act of 2005. The RFS program established the first renewable fuel volume mandate in the US. As required under the act, the original RFS program required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the Act, the RFS program was expanded in several ways that laid the foundation for achieving significant reductions of GHG emissions through the use of renewable fuels, for reducing imported petroleum, and for encouraging the development and expansion of the nation's renewable fuels sector. The updated program is referred to as RFS2 and includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline:
- EISA increase the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022;
- EISA established new categories of renewable fuel and set separate volume requirements for each one; and
- EISA required by the U.S. EPA to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

Additional provisions of the EISA address energy savings in government and public institutions, promoting research for alternate energy, additional research in carbon capture, international energy programs, and the creation of "green jobs."

Federal Vehicle Standards

The Energy Policy and Conservation Act of 1975 (EPCA) mandated that the National Highway Traffic Safety Administration (NHTSA) establish and implement a regulatory program for motor vehicle fuel economy, known as the corporate average fuel economy (CAFE) program, to reduce national energy consumption. As codified in Chapter 329 of Title 49 of the U.S. Code (U.S.C.) and, as amended by the Energy Independence and Security Act of 2007 (EISA), EPCA sets forth specific requirements concerning the establishment of average fuel economy standards for passenger cars and light trucks. These are motor vehicles with a gross vehicle weight rating less than 8,500 pounds and medium-duty passenger vehicles with a gross vehicle weight rating less than 10,000 pounds. The Secretary of Transportation delegated responsibility for implementing the CAFE program to NHTSA.

EISA, enacted by Congress in December 2007, amended the EPCA CAFE program requirements by providing the Department of Transportation (DOT) additional rulemaking authority and responsibilities. Consistent with its statutory authority, in rulemaking to establish CAFE standards for model year 2017 and beyond passenger cars and light trucks, NHTSA developed two phases of standards. The first phase included final standards for model years 2017–2021. The second phase, covering model years 2022–2025, included standards that were not final, due to the statutory requirement that NHTSA set average fuel economy standards not more than five model years at a time. Rather, NHTSA wrote that those standards were augural, meaning that they represented its best estimate, based on the information available at that time, of what levels of stringency might be maximum feasible in those model years. In 2012, the agencies jointly adopted more stringent Phase 2 standards for light duty cars and trucks, which would cover model years 2017 through 2025. In August of 2016, the agencies adopted more stringent Phase 2 standards for medium- and heavy-duty vehicles, which would cover model years 2018 through 2027 for certain trailers and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks.

On March 31, 2020, NHTSA and the USEPA released a new rule, the final Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, setting CAFE and carbon dioxide (CO2) emissions standards for model years 2021 through 2026 passenger cars and light trucks. The rule rolls back the 2012 standards for model years 2021 through 2026 for passenger cars and light trucks which required an average fleetwide fuel economy equivalent of 54.5 miles per gallon in model year 2025 with a 5 percent annual increase to an average fuel economy of about 40 miles per gallon in model year 2025 with annual increases of 1.5 percent starting in 2021. As a part of issuing the new SAFE rule, NHTSA issued a Final Environmental Impact Statement which found that the relaxed standards would result in increased petroleum consumption which in turn would result in increases to greenhouse gases and criteria pollutants known to contribute to adverse health impacts (NHTSA 2020). These estimated increases from the roll back of the 2012 standards are expected to result in more than a billion metric tons additional climate pollution through 2040 as determined by calculating the difference from the reduction of 2 billion metric tons the 2012 rule was expected to accomplish compared to the standards of the 2020 rule (NHTSA 2020).

5.2.2 State

In addition to the myriad of GHG legislation and Executive Orders that have the cross benefit of reducing energy usage, the State also has an aggressive Energy Code.

California Energy Code

Compliance with the California Energy Code (Title 24, Part 6, of the California Code of Regulations [CCR], California's Energy Efficiency Standards) and Title 20, Public Utilities and Energy, standards must occur for all new buildings constructed in California. These efficiency standards apply to new construction of both residential and nonresidential (i.e., maintenance buildings and pump station buildings associated with the Program) buildings, and they regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit processes, and local government agencies may adopt and enforce energy standards for new buildings provided that these standards meet or exceed those provided in the Title 24 guidelines.

5.2.3 Local

City of Porterville

The City of Porterville General Plan's Open Space and Conservation Element includes the following polices related to energy conservation that are applicable to the proposed project.

> OSC-G-10: Reduce and conserve energy use in existing and new commercial, industrial, and public structures.

6.0 MODELING PARAMETERS AND ASSUMPTIONS

The following modeling parameters and assumptions were used to generate criteria air pollutant and greenhouse gas (GHG) emissions for the Lombardi Development Project.

6.1 CRITERIA AIR POLLUTANT AND GHG MODEL SELECTION

The California Emissions Estimator Model (CalEEMod) is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects. CalEEMod quantifies direct emissions from construction and operation activities (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. Further, CalEEMod identifies mitigation measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from measures chosen by the user.

CalEEMod was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California Air Districts. Default data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California Air Districts to account for local requirements and conditions.

CalEEMod is a comprehensive tool for quantifying air quality impacts from land use projects located throughout California. The model can be used for a variety of situations where an air quality analysis is necessary or desirable such as preparing CEQA or National Environmental Policy Act documents, conducting pre-project planning, and, verifying compliance with local air quality rules and regulations, etc.

CalEEMod version 2020.4.0 was used to estimate construction and operational impacts of the proposed project.

6.2 AIR POLLUTANTS AND GHGS ASSESSED

6.2.1 Criteria Pollutants Assessed

The following criteria air pollutants were assessed in this analysis: reactive organic gases (ROG), oxides of nitrogen (NO_X), particulate matter less than 10 microns in diameter (PM_{10}), and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$). Note that the proposed project would emit ozone precursors ROG and NO_X. However, the proposed project would not directly emit ozone since it is formed in the atmosphere during the photochemical reaction of ozone precursors.

6.2.2 GHGs Assessed

This analysis was restricted to GHGs identified by AB 32, which include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3). The proposed project would generate a variety of GHGs, including several defined by AB 32 such as CO_2, CH_4, and N_2O.

Certain GHGs defined by AB 32 would not be emitted by the project. HFCs, PFCs, SF_6, and NF_3 are typically used in industrial applications, none of which would be used for typical multifamily residential operations. Therefore, it is not anticipated that the proposed project would emit those GHGs.

GHG emissions associated with the proposed project construction, as well as future operations were estimated using CO_2 equivalent (CO_2e) emissions as a proxy for all GHG emissions. Construction GHG emissions were amortized over the lifetime of the proposed project. In order to obtain the CO_2e, an individual GHG is multiplied by its Global Warming Potential (GWP). The GWP designates on a pound for pound basis the potency of the GHG compared to CO_2.

6.3 ASSUMPTIONS

6.3.1 Construction Modeling Assumptions

Construction is anticipated to occur in two phases. The proposed construction phases will not overlap, therefore CalEEMod modeling was prepared for each phase of construction.

Land Use

Table 4 provides a summary of the land use inputs included in the CalEEMod modeling.

Table 4: CalEEMod Land Use Development Summary Table for the Proposed Project

Project Component	CalEEMod Land Use Type	Land Use Unit Amount (Size)	Land Use Size Metric	Total Square Footage (Building Square Footage is Used for Buildings)	Land Use Acreage
Phase 1					
Single Family Homes	Single Family Housing	128	DU	230,400	19.34 AC
Roadways	Other Asphalt Surfaces	9.08	AC	395,525	9.08 AC
Phase 2					
Single Family Homes	Single Family Home	105	DU	189,000	18.88 AC
Roadways	Other Asphalt Surfaces	8.43	AC	367,211	8.43 AC
Park	City Park	152,819	SF	0[1]	3.51 AC

Notes:
DU = dwelling unit
SF = square feet
AC = acre
[1] The City Park was assumed to not have any buildings constructed.

Construction Schedule

The proposed project would require various tasks including site preparation, grading, building construction, architectural coatings, and paving. Table 5 shows the anticipated construction schedule. The construction schedule utilized in the analysis will represent a “worst-case” analysis scenario since emission factors for construction equipment decrease as the analysis year increases, due to improvements in technology and more stringent regulatory requirements. Therefore, construction emissions would decrease if the construction schedule moved to later years or is phased over multiple years. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required per CEQA guidelines. The site-specific construction fleet may vary due to specific project needs at the time of construction.

Table 5: Project Construction Schedule

Construction Task	Start Date	End Date	Workdays
Phase 1			
Site Preparation	10/1/2021	10/14/2021	10
Grading	10/15/2021	11/18/2021	25
Building Construction	11/19/2021	8/25/2022	200
Paving	8/26/2022	9/12/2022	12
Architectural Coating	9/13/2022	9/30/2022	14
Phase 2			
Site Preparation	1/1/2023	1/13/2023	10
Grading	1/14/2023	2/17/2023	25
Building Construction	2/18/2023	11/24/2023	300
Paving	11/25/2023	12/12/2023	12
Paving	12/13/2023	12/31/2023	13
Source: CalEEMod Output (Attachment A).			

Construction Equipment

The off-road equipment fleet for construction were generated using default values from CalEEMod. CalEEMod generates construction fleets for construction activities based on the size of the construction areas. Construction equipment for each construction activity by phase is shown in Table 6.

Table 6: Project Construction Equipment

Construction Task	Equipment Type	Pieces of Equipment	Usage (hours/day)	Horsepower	Load Factor	Fuel Type
Phase 1						
Site Preparation	Rubber Tired Dozers	3	8	247	0.40	Diesel
	Tractors/Loaders/Backhoes	4	8	97	0.37	Diesel
Grading	Excavators	2	8	158	0.38	Diesel
	Graders	1	8	187	0.41	Diesel
	Rubber Tired Dozers	1	8	247	0.40	Diesel
	Scrapers	2	8	367	0.48	Diesel
	Tractors/Loaders/Backhoes	2	8	97	0.37	Diesel
Building Construction	Cranes	1	7	231	0.29	Diesel
	Forklifts	3	8	89	0.20	Diesel

Construction Task	Equipment Type	Pieces of Equipment	Usage (hours/day)	Horsepower	Load Factor	Fuel Type
Phase 1						
	Generator Sets	1	8	84	0.74	Diesel
	Tractors/Loaders/Backhoes	3	7	97	0.37	Diesel
	Welders	1	8	46	0.45	Diesel
Paving	Pavers	2	8	130	0.42	Diesel
	Paving Equipment	2	8	132	0.36	Diesel
	Rollers	2	8	80	0.38	Diesel
Architectural Coating	Air Compressors	1	6	78	0.48	Diesel
Phase 2						
Site Preparation	Rubber Tired Dozers	3	8	247	0.40	Diesel
	Tractors/Loaders/Backhoes	4	8	97	0.37	Diesel
Grading	Excavators	2	8	158	0.38	Diesel
	Graders	1	8	187	0.41	Diesel
	Rubber Tired Dozers	1	8	247	0.40	Diesel
	Scrapers	2	8	367	0.48	Diesel
	Tractors/Loaders/Backhoes	2	8	97	0.37	Diesel
Building Construction	Cranes	1	7	231	0.29	Diesel
	Forklifts	3	8	89	0.20	Diesel
	Generator Sets	1	8	84	0.74	Diesel
	Tractors/Loaders/Backhoes	3	7	97	0.37	Diesel
	Welders	1	8	46	0.45	Diesel
Paving	Pavers	2	8	130	0.42	Diesel
	Paving Equipment	2	8	132	0.36	Diesel
	Rollers	2	8	80	0.38	Diesel
Architectural Coating	Air Compressors	1	6	78	0.48	Diesel
Source: CalEEMod Output (Attachment A)						

Vehicle Trips

Off-site construction emissions are caused by motor vehicle exhaust from delivery vehicles, worker traffic, and road dust (PM_{10} and $PM_{2.5}$). Table 7 provides a summary of the construction-related vehicle trips. CalEEMod default values were used to estimate the number of construction-related vehicle trips.

CalEEMod quantifies the number of construction workers by multiplying 1.25 times the number of pieces of equipment for all phases (except Building Construction and Architectural Coating). CalEEMod default values were used to estimate the number of vendor vehicle trips. The number of vendor trips during the Building Construction phase is derived from a study conducted by the Sacramento Metropolitan Air Quality Management District (SMAQMD) as per the CalEEMod defaults. The SMAQMD trip survey during construction counted cement and water trucks as vendor trips (instead of counting them as off-road vehicle trips) and these trip rates were incorporated into the calculations for the Building Construction phase. The default values for hauling trips assume that a truck can haul 20 tons (or 16 cubic yards) of material per load. If one load of material is delivered, CalEEMod assumes that one haul truck importing material will also have a return trip with an empty truck (e.g., 2 one-way trips).

The fleet mix for worker trips is light-duty passenger vehicles to light-duty trucks. The vendor trips fleet mix is composed of a mixture of medium and heavy-duty diesel trucks. The hauling trips were assumed to be 100 percent heavy-duty diesel truck trips. CalEEMod default trip lengths for a project in Tulare County and an urban setting were used for the worker (10.8 miles), vendor (7.3 miles), and hauling trips (20 miles).

Table 7: Construction Vehicle Trips

Construction Task	Worker Trips per Day	Vendor Trips per Day	Total Haul Truck Trips
Phase 1			
Site Preparation	18	0	0
Grading	20	0	0
Building Construction	212	79	0
Paving	15	0	0
Architectural Coating	42	0	0
Phase 2			
Site Preparation	18	0	0
Grading	20	0	0
Building Construction	256	96	0
Paving	15	0	0
Architectural Coating	51	0	0

Notes:
No hauling trucks anticipated as there is no demolition and all grading will be balanced on the Project site.
Source: CalEEMod Output (Attachment A).

6.3.2 Construction Modeling Assumptions

Operational emissions are those emissions that occur during operation of the proposed project. The sources are summarized below.

Motor Vehicles

Motor vehicle emissions refer to exhaust and road dust emissions from the automobiles that would travel to and from the proposed project site. The trip generation rates within CalEEMod version 2020.4.0 rely on the Institute of Transportation Engineer's (ITE) 10th Edition, which calculates trip rates for a variety of land uses based on land use sizes. For single-family homes, ITE Code 210 was used as the default setting within the model and is consistent with trip generation tables prepared for the proposed project.

Trip Lengths

The CalEEMod default round trip lengths for an urban setting in Tulare County were used in this analysis. Trip lengths are for primary trips. Trip purpose are primary, diverted, and pass-by trips. Diverted trips take a slightly different path than a primary trip. The CalEEMod default rates for percentages of primary, diverted, and pass-by trips were used. The emissions estimate also considers the internal capture rates, consistent with the project-specific trip generation. Internal capture rates account for vehicle trips that visit the project site for the purpose of visiting more than land use within the project.

Vehicle Fleet Mix

The vehicle fleet mix is defined as the mix of motor vehicle classes active during the operation of the proposed 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). Project-specific fleet mixes were applied in the assessment.

Area Sources

Consumer Products

Consumer products are various solvents used in non-industrial applications that emit ROG during their product use. These typically include cleaning supplies, kitchen aerosols, cosmetics, and toiletries. The default CalEEMod values were used for this project.

Architectural Coatings (Painting)

Paints release VOC emissions. The buildings would be repainted on occasion. CalEEMod defaults for the wall painting size and VOC paint concentration were used for this purpose.

Landscaping Emissions

CalEEMod will estimate a total of 180 days for which landscaping equipment would be used to estimate potential emissions for the proposed project.

Indirect Emissions

For GHG emissions, CalEEMod contains calculations to estimate indirect GHG emissions. Indirect emissions are emissions where the location of consumption or activity is different from where actual emissions are generated. For example, electricity would be consumed at the proposed project site; however, emissions associated with producing that electricity are generated off-site at a power plant. Since the electricity can vary greatly based on locations, the user should override these values if they have more specific information regarding their specific water supply and treatment.

Energy Use

The Renewables Portfolio Standard (RPS) is not accounted for in CalEEMod 2016.3.2. Reductions from RPS are addressed by revising the electricity emission intensity factor in CalEEMod to account for the utility RPS rate forecast for 2020. Pacific Gas and Electric (PG&E) would provide electricity and natural gas services to the project site. PG&E provides emission factors for the electricity it provides to customers for its energy portfolio that is used to estimate project emissions. The utilities will be required to increase the use of renewable energy sources to 60 percent by 2030. The latest information available in PG&E's 2020 Sustainability Report were used to adjust the project CO_2 intensity factor for the project buildout year and 2030 scenarios.

The emissions associated with the building electricity and natural gas usage (non-hearth) were estimated based on the land use type and size. The electricity energy use is in units of kilowatt hours per size metric for each land use type. Natural gas use is in units of one thousand British Thermal Units per size metric for each land use type.

Sequestration

The Project will plant at least one tree at every subdivision lot. Trees sequester carbon from the atmosphere and act as a carbon sink. Within the modeling, it was assumed that a total of 233 trees would be planted (one for each lot). The amount of carbon absorbed from the atmosphere depends on the tree type. The Project will likely plant a variety of trees, as a result, the miscellaneous tree option was selected in order to account for an average amount of carbon sequestered per tree per year.

Other Indirect Emissions (Water Use, Wastewater Use, and Solid Waste)

CalEEMod includes calculations for indirect GHG emissions for electricity consumptions, water consumption, and solid waste disposal. For water consumption, CalEEMod calculates embedded energy (e.g., treatment, conveyance, distribution) associated with providing each gallon of potable water to the project. For solid waste disposal, GHG emissions are associated with the disposal of solid waste generated by the proposed project into landfills. CalEEMod default data were used for inputs associated with solid waste.

Fugitive Dust

Construction

Fugitive dust would be generated from site grading and other earth-moving activities. Most of this fugitive dust would remain localized and would be deposited near the project site. However, the potential for impacts from fugitive dust exists unless control measures are implemented to reduce the emissions from the project site. Therefore, adherence to Regulation VIII would be required during construction of the proposed project. Regulation VIII would require fugitive dust control measures that are consistent with best management practices (BMPs) established by the SJVAPCD to reduce the proposed project's construction-generated fugitive dust impacts to a less than significant level.

Visible Dust Emissions may not exceed 20% opacity during periods when soil is being disturbed by equipment or by wind at any time. Visible dust emissions opacity of 20% means dust that would obstruct an observer's view of an object by 20%. District inspectors are state certified to evaluate visible emissions. Dust control may be achieved by applying water before/during earthwork and onto unpaved traffic areas, phasing work to limit dust, and setting up wind fences to limit wind blown dust.

Soil Stabilization is required at regulated construction sites after normal working hours and on weekends and holidays. This requirement also applies to inactive construction areas such as phased projects where disturbed land is left unattended. Applying water to form a visible crust on the soil and restricting vehicle access are often effective for short-term stabilization of disturbed surface areas. Long-term methods including applying dust suppressants and establishing vegetative cover.

Carryout and Trackout occur when materials from emptied or loaded vehicles falls onto a paved surface or shoulder of a public road or when materials adhere to vehicle tires and are deposited onto a paved surface or shoulder of a public road. Should either occur, the material must be cleaned up at least daily, and immediately if it extends more than 50 feet from the exit point onto a paved road. The appropriate clean-up methods require the complete removal and cleanup of mud and dirt from the paved surface and shoulder. Using a blower device or dry sweeping with any mechanical device other than a PM10-efficient street sweeper is a violation. Larger construction sites, or sites with a high amount of traffic on one or more days, must prevent carryout and trackout from occurring by installing gravel pads, grizzlies, wheel washers, paved interior roads, or a combination thereof at each exit point from the site. In many cases, cleaning up trackout with water is also prohibited as it may lead to plugged storm drains. Prevention is the best method.

Unpaved Access and Haul Roads, as well as unpaved vehicle and equipment traffic areas at construction sites must have dust control. Speed limit signs limiting vehicle speed to 15 mph or less at construction sites must be posted every 500 feet on uncontrolled and unpaved roads.

Storage Piles and Bulk Materials have handling, storage, and transportation requirements that include applying water when handling materials, wetting or covering stored materials, and installing wind barriers to limit VDE. Also, limiting vehicle speeds, loading haul trucks with a freeboard of six inches or greater along with applying water to the top of the load, and covering the cargo compartments are effective measures for reducing VDE and carryout from vehicles transporting bulk materials.

Demolition: activities require the application of water to the exterior of the buildings and to unpaved surfaces where materials may fall. A Dust Control Plan will be required for large demolition projects. Consider all structures slated for demolition as possibly being regulated due to potential asbestos, per District Rule 4002 - National Emission Standards for Hazardous Air Pollutants. Contact the District well before starting because a 10 working-day notice will likely be required before a demolition can begin.

Dust Control Plans identify the dust sources and describe the dust control measures that will be implemented before, during, and after any dust generating activity for the duration of the project. Owners or operators are required to submit plans to the District at least 30 days prior to commencing the work for the following:

- Residential developments of ten or more acres of disturbed surface area.
- Non-residential developments of five or more acres of disturbed surface area.
- The relocation of more than 2,500 cubic yards per day of materials on at least three days.

Operations may not commence until the District has approved the Dust Control Plan. A copy of the plan must be on site and available to workers and District employees. All work on the site is subject to the requirements of the approved dust control plan. A failure to abide by the plan by anyone on site may be subject to enforcement action. Owners or operators of construction projects that are at least one acre in size and where a Dust Control Plan is not required, must provide written notification to the District at least 48 hours in advance of any earthmoving activity.

Record Keeping is required to document compliance with the rules and must be kept for each day any dust control measure is used. The District has developed record forms for water application, street sweeping, and "permanent" controls such as applying long term dust palliatives, vegetation, ground cover materials, paving, or other durable materials. Records must be kept for one year after the end of dust generating activities (Title V sources must keep records for five years).

Nuisances are prohibited at all times because District Rule 4102 – Nuisance applies to all construction sources of fugitive dust, whether or not they are exempt from Regulation VIII. It is important to monitor dust-generating activities and implement appropriate dust control measures to limit the public's exposure to fugitive dust.

6.4 HEALTH RISK ASSESSMENT MODEL SELECTION AND PARAMETERS

An air dispersion model is a mathematical formulation used to estimate the air quality impacts at specific locations (receptors) surrounding a source of emissions given the rate of emissions and prevailing meteorological conditions. The air dispersion model applied in this assessment was the United States Environmental Protection Agency (EPA) AERMOD (version 19191) air dispersion model. Specifically, the AERMOD model was used to estimate levels of air emissions at sensitive receptor locations from potential sources of project-generated TACs. The use of the AERMOD model provides a refined methodology for estimating construction impacts by utilizing long-term, measured representative meteorological data for the project site and a representative construction schedule.

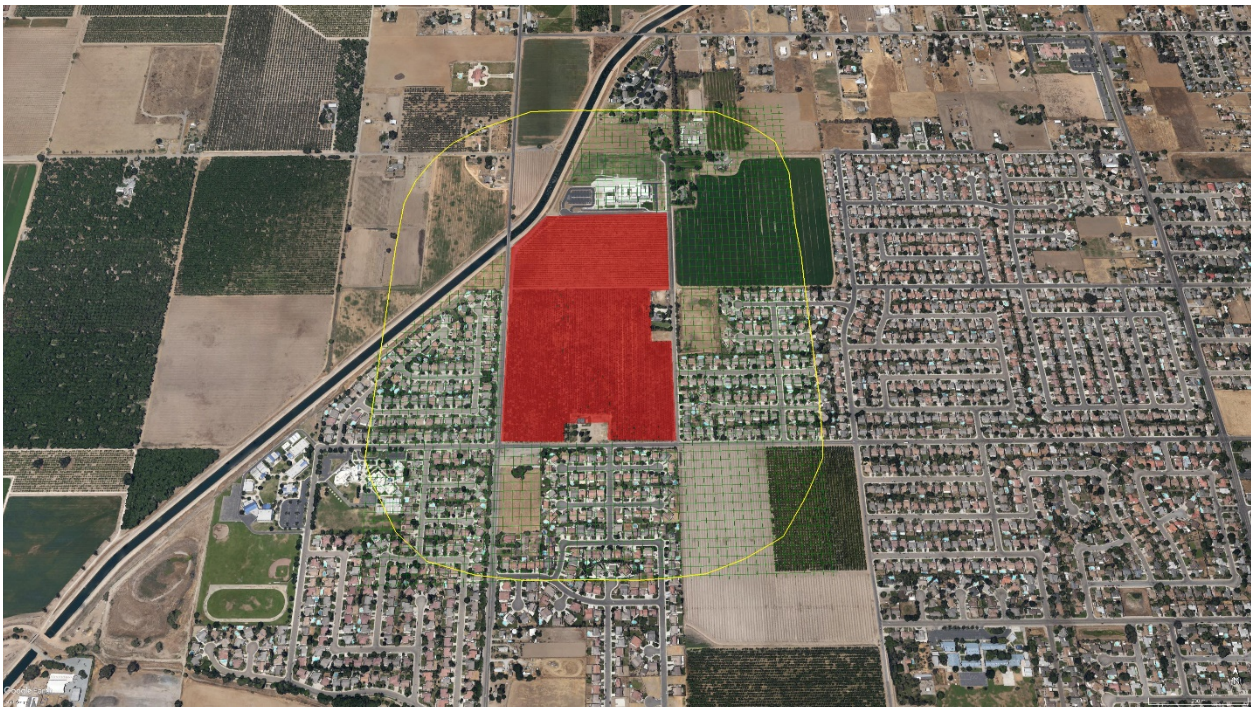
The modeling analysis also considered the spatial distribution and elevation of each emitting source in relation to the sensitive receptors. Direction-dependent calculations were obtained by identifying the Universal Transverse Mercator (UTM) coordinates for each source location. Terrain elevations were obtained for the project site using the AERMAP model, the AERMOD terrain data pre-processor. Specifically, National Elevation dataset (NED) data for the area were obtained and included in the model runs to account for complex terrain. The air dispersion model assessment used meteorological data from the Porterville 23149 Station. The meteorological data used was preprocessed for use with AERMOD by the SJVAPCD and included data for the years 2006 to 2009; all years were used in the assessment. To evaluate the proposed project's localized impacts at the point of maximum impact, all receptors were placed within the breathing zone at zero meters above ground level.

6.4.1 Construction

For the construction period, construction emissions were assumed to be distributed over the project site assuming emissions would be evenly distributed over a 24-hour period. Detailed parameters and complete calculations are contained in Appendix B.

Figure 3 shows a representation of the modeling parameters, including a 1,000-foot buffer, the project area (construction area source) and locations of sensitive receptors.

Figure 3: Project Site with Sensitive Receptors within 1,000 Feet



6.4.2 Air Toxics Generated during Operations

The greatest potential during long-term operations for exposure to TACs is form the use of heavy-duty diesel trucks and stationary generators that use diesel fuel. The proposed Project will operate 233 residential homes and a park. Once operational, the majority of vehicle trips to and from the Project site would be from residents and, as a result, the Project would attract very few diesel truck trips. Additionally, the project does not propose any stationary generators on-site. As such, once operational, the proposed project would not be expected to expose nearby sensitive receptors to substantial amounts of air toxics and the project would have a less than significant impact.

7.0 AIR QUALITY IMPACT ANALYSIS

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

7.1 CEQA GUIDELINES

According to the CEQA Guidelines' Appendix G Environmental Checklist, the following questions are analyzed and evaluated to determine whether impacts to air quality are significant environmental effects.

Where available, the significance criteria established by the applicable air quality management or air pollution district may be relied upon to make the following determinations.

Where the Project:

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

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

c) Expose sensitive receptors to substantial pollutant concentrations?

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

7.1.1 Thresholds of Significance

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 (shown in Table 8) 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.

Table 8: SJVAPCD Significance Thresholds

Pollutant	Significance Threshold	
	Construction Emissions (tons/year)	Operational Emission (tons/year)
CO	100	100
NO_X	10	10
ROGs	10	10
SO_X	27	27
PM10	15	15
PM2.5	15	15
Source: SJVAPCD 2015		

The project does not contain sources that would produce substantial quantities of SO_2 emissions during construction and operation. Modeling conducted for the project show that SO_2 emissions are well below the SJVAPCD GAMAQI thresholds, as shown in the modeling results contained in Appendix A. No further analysis of SO_2 is required.

7.2 AIR IMPACT ANALYSIS

Impact AIR-1	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 AQP's:

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 emissions reductions specified in the AQPs? This measure is determined by comparison to the regional and localized thresholds identified by the District or Regional and Local Air Pollutants.
2. Will the project conform to the assumptions in the AQPs?
3. Will the project comply with applicable control measures in the AQPs?

The use of criteria listed above is a standard approach for CEQA analysis of projects in the SJVAPCD's jurisdictions, 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.
- Air Quality Plan (AQP) emissions inventories and attainment modeling are based on growth assumptions for the area within the SJVAPCD's jurisdiction.
- AQPs rely on a set or 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 assumptions, inputs, and control measures are analyzed to determine if the SJVAB can reach attainment for the ambient air quality standards. To show attainment of the standards, the SJVAPCD analyzes the growth projections in the valley, contributing factors in air pollutant emissions and formations, and existing and adopted emissions controls. The SJVAPCD then formulates a control strategy to reach attainment that includes both State and SJVAPCD regulations and other local programs and measures. The applicable AQPs include the 2016 8-Hour Ozone Plan which contains measures to achieve reductions in emissions of ozone precursors and sets plans towards attainment of ambient ozone standards by 2031 and the 2018, 2016, 2015, 2012, and 2008 PM2.5 Plans to address multiple PM2.5 air quality standards and attainment deadlines.

Contribution to Air Quality Violations

A measure of 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 or 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. Because of the region's nonattainment status for ozone, PM2.5, and PM10, if Project-generated emissions of either of the ozone precursor pollutants (ROG and NO_X), PM10, or PM2.5 would exceed the SJVAPCD's significance thresholds, then the Project would be considered to conflict with the attainment plans.

As shown in Impact AIR-2, emissions of ROG, NOX, PM10, and PM2.5 from construction and operation of the Project would not exceed the SJVAPCD's significance thresholds. As shown in Impact AIR-3, the Project would not expose sensitive receptors to a substantial pollutant concentration. Therefore, the Project would not contribute to air quality violations.

Consistency with Assumptions in AQPs

The primary way of determining consistency with the AQP's assumptions is determining consistency with the applicable General Plan to ensure that the project's population density and land use are consistent with the growth assumptions used in the AQPs for the SJVAB.

As required by California law, city and county General Plan contain a Land Use Element that details the types and quantities of land uses that the city or county estimates will be needed for future growth and designates locations for land uses to regulate growth. The Tulare Council of Governments (Tulare COG) uses the growth projections and land use information in adopted general plans, among other sources to estimate future average daily trips and then vehicles miles traveled (VMT), which are then provided to the SJVAPCD to estimate future emissions in the AQPs. Existing and future pollutant emissions computed in the AQPs are based on land uses from area general plans. AQPs detail the control measures and emission reductions required for reaching attainment of the air standards based on these growth and emission estimates.

The applicable General Plan for the project is the City of Porterville 2030 General Plan, which was adopted in 2008, prior to the SJVAPCD's adoption of the applicable AQPs. The Land Use General Plan designated the site as Low Density Residential. Therefore, the Project would be consistent with the modeling used to prepare the AQPs. The impact would be less than significant.

Control Measures

The AQP contains several control measures, which are enforceable requirements through the adoption of rules and regulations. A detailed description of rules and regulations that apply to this Project is provided in the Regulatory Setting. The Project would comply with all applicable SJVAPCD rules and regulations. Therefore, the project complies with this criterion and would not conflict with or obstruct implementation of the applicable air quality plan.

Conclusion

The Project would not conflict with or obstruct implementation of the applicable AQPs.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

None are required.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact AIR-2	**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?**

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 SJVAPCD's regional significance thresholds. This is an approach recommended by the SJVAPCD in its GAMAQI.
2. Summary of projections: the project must be consistent with current air AQPs 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.

Step 1: Regional Analysis

Air pollutant emissions have regional effects 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 also assessed using concentration-based 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.

The primary pollutants of concern during Project construction and operation are ROG, NO_x, PM10, and PM2.5. The SJVAPCD GAMAQI adopted in 2015 contains thresholds for ROG and NO_x; SO_x, CO, PM10, and PM2.5.

Ozone is a secondary pollutant that can be formed miles away 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 SJVAB 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 SJVAB also exceeds air quality standards for PM10, and PM2.5; therefore, substantial Project emissions may contribute to an exceedance for these pollutants. The SJVAPCD's annual emission significance thresholds used for the Project define substantial contribution both operational and construction emissions are provided in Table 14.

Construction Emissions

Construction emissions associated with the Project are shown in Table 9. For assumptions in estimating the emissions, please refer to Modeling Parameters and Assumptions. As shown in Table 12, the emissions are below the significance thresholds and, therefore, are less than significant on a Project basis.

Table 9: Construction Emissions – Unmitigated

Emissions Source	Emissions (Tons/Year)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Phase One						
2021						
Site Preparation	0.02	0.20	0.11	<0.01	0.11	0.06
Grading	0.05	0.58	0.39	<0.01	0.14	0.07
Building Construction (2021)	0.05	0.36	0.39	<0.01	0.05	0.02
2021 Subtotal	*0.12*	*1.15*	*0.89*	*<0.01*	*0.30*	*0.15*
2022						
Building Construction (2022)	0.23	1.74	2.03	<0.01	0.26	0.12
Paving	0.02	0.07	0.09	<0.01	0.00	0.00
Architectural Coating	2.25	0.01	0.02	<0.01	0.00	0.00
2022 Subtotal	*2.49*	*1.82*	*2.14*	*<0.01*	*0.27*	*0.12*
Phase Two						
2023						
Site Preparation	0.01	0.14	0.09	0.00	0.11	0.06

Emissions Source	Emissions (Tons/Year)					
	ROG	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Grading	0.04	0.43	0.36	0.00	0.13	0.02
Building Construction	0.26	1.93	2.45	0.01	0.34	0.14
Paving	0.02	0.06	0.09	<0.01	<0.01	<0.01
Architectural Coating	1.85	0.01	0.02	<0.01	<0.01	<0.01
2023 Subtotal	*2.18*	*2.57*	*3.01*	*<0.01*	*0.59*	*0.27*
Total Construction Duration (Phase One and Phase Two)						
Maximum in Any Calendar Year	2.49	2.57	3.01	<0.01	0.59	0.27
Significance Thresholds	10	10	100	27	15	15
Any Year Exceed Significance Thresholds?	No	No	No	No	No	No
Notes: Source of Emissions: CalEEMod Output (Attachment A). Source of Thresholds: San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed July 19, 2021.						

Operations

Operational emissions occur over the lifetime of the project and from two main sources: areas sources and motor vehicles. The SJVAPCS considers construction and operations emissions separately when making significance determination. However, Phase One will likely become operational when Phase Two is under construction. The overlap in emissions between Phase One operation and Phase Two construction are evaluated in Table 10 and demonstrate that emissions during this overlap would be less than the thresholds of significance for all criteria air pollutants.

Table 10: Summary of Overlapping Phase One Operational and Phase Two Construction Criteria Air Pollutants - Unmitigated

Source	Emissions (tons/year)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Phase One Operation						
Area	1.18	0.06	0.97	>0.01	0.01	0.01
Energy	0.02	0.14	0.06	>0.01	0.01	0.01
Mobile	0.69	1.23	6.45	0.01	1.27	0.35
Total Phase One Operational	*1.89*	*1.43*	*7.48*	*0.01*	*1.29*	*0.37*
Phase Two Construction						
Total Phase Two Construction (2023)	*2.18*	*2.57*	*3.01*	*<0.01*	*0.59*	*0.27*
Total Overlapping Emissions (Phase One Operation and Phase Two Construction)						
Total	4.07	4.00	10.49	0.01	1.88	0.64
Significance Thresholds	10	10	100	27	15	15
Exceed Significance Thresholds?	No	No	No	No	No	No

Notes:

Emissions were quantified using CalEEMod, version 2020.4.0 based on project details and estimated operating year for the proposed project. Totals may not sum exactly due to rounding.

Source: CalEEMod Output (Attachment A).

The emissions output for project operation at full buildout for 2024 are summarized in Table 14. As shown in Table 11, the operational emissions would be less than the thresholds of significance for all criteria air pollutants. The impact is less than significant.

Table 11: Summary of Operational Emissions of Criteria Air Pollutants – Unmitigated

Source	Emissions (tons/year)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Phase One Operation						
Area	1.18	0.06	0.97	>0.01	0.01	0.01
Energy	0.02	0.14	0.06	>0.01	0.01	0.01
Mobile	0.69	1.23	6.45	0.01	1.27	0.35
Subtotal Phase One Operational	*1.89*	*1.43*	*7.48*	*0.01*	*1.29*	*0.37*
Phase Two Operation						
Area	0.98	0.05	0.80	>0.01	0.01	0.01

Source	Emissions (tons/year)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Energy	0.01	0.12	0.05	>0.01	0.01	0.01
Mobile	0.50	0.83	4.64	0.01	1.04	0.29
Subtotal Phase Two Operational	*1.49*	*0.99*	*5.49*	*0.01*	*1.06*	*0.30*
2024 Full Buildout Total	**3.38**	**2.42**	**12.97**	**0.02**	**2.35**	**0.67**
Significance Thresholds	10	10	100	27	15	15
Exceed Significance Thresholds?	No	No	No	No	No	No
Notes: Emissions were quantified using CalEEMod, version 2020.4.0 based on project details and estimated operating year for the proposed project. Totals may not sum exactly due to rounding. Source: CalEEMod Output (Attachment A).						

If an area is in nonattainment for a criteria pollutant, then the background concentration of that pollutant has historically exceeded the ambient air quality standard. It follows that if a project exceeds the regional threshold for that nonattainment pollutant, then it would result in a cumulatively considerable net increase of that pollutant and result in a significant cumulative impact.

The SJVAB is in nonattainment for PM10, PM2.5, and ozone. Therefore, if the Project exceeds the regional thresholds for PM10, or PM2.5, then it contributes to a cumulatively considerable impact for those pollutants. If the Project exceeds the regional threshold for NO_X or ROG, then it follows that the Project would contribute to a cumulatively considerable impact for ozone.

The criteria pollutant emissions analysis, as shown in above, assessed whether the Project would exceed the SJVAPCD's thresholds of significance. As shown in Table 11 and Table 12, criteria pollutant emissions would not exceed any threshold of significance during Project construction or operation. Therefore, the combination of unmitigated Project emissions with the criteria pollutants from other sources within the SJVAB would not cumulatively contribute to a significant impact according to this criterion.

Step 2: Plan Approach

Section 15130(b) of the CEQA Guidelines states the following:

The following elements are necessary to an adequate discussion of significant cumulative impacts: 1) Either: (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact.

In accordance with CEQA Guidelines 15130(b), this analysis of cumulative impacts is based on a summary of projections analysis. The SJVAB is in nonattainment for ozone and particulate matter (PM_{10} and $PM_{2.5}$), which means that concentrations of these pollutants currently exceed the applicable ambient air quality standards.

Cumulative impacts may be analyzed using other plans that evaluate relevant cumulative effects. The geographic scope for cumulative criteria pollution from air quality impacts is the SJVAB, because that is the area in which the air pollutants generated by the sources within the SJVAB circulate and are often trapped. The SJVAPCD is required to prepare and maintain air quality attainment plans and a State Implementation Plan to document the strategies and measures to be undertaken to reach attainment of ambient air quality standards. While the SJVAPCD does not have direct authority over land use decisions, it is recognized that changes in land use and circulation planning would help the SJVAB achieve clean air mandates. The SJVAPCD evaluated emissions from land uses and transportation in the entire SJVAB when it developed its attainment plans.

In accordance with CEQA Guidelines Section 15064, subdivision (h)(3), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the Project complies with the requirements in a previously approved plan or mitigation program.

As discussed in Impact AIR-1, the project is consistent with all applicable control measures in the air quality attainment plans. The Project would be required to comply with any SJVAPCD rules and regulations that may pertain to implementation of the AQPs. Therefore, impacts would be less than significant with regard to compliance with control measures and regulations.

Step 3: Cumulative Health Impacts

The SJVAB is in nonattainment for ozone, PM10, and PM2.5, 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.

Adverse health effects induced by ozone includes short-term effects such as coughing, difficulty breathing, and sore throat as well as long-term effects including inflamed or damaged airways, aggravated lung diseases like asthma or bronchitis, and increased frequency of asthma attacks. O3 is created through chemical reactions between NOx, VOCs, and oxygen (EPA, 2021c). Therefore, the health effects related to O_3 are the product of emissions generated by numerous sources throughout the region.

Exposure to particulate matter (PM10 and PM2.5) can affect the lungs and heart and may cause irregular heartbeat, aggravated asthma, and decreased lung function (EPA, 2021b). Direct sources of particulate matter include construction sites, unpaved roads, fields, and fires. Particulate matter is also formed indirectly as a result of complex reactions of chemicals such as SOx and NOx (EPA, 2021b).

The SJVAPCD has acknowledged that while HRAs for localized air toxic impacts are commonly prepared, the currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's criteria air pollutant emissions and specific human health impacts (SJVAPCD, 2015b). The South Coast Air Quality Management District (SCAQMD) states that based on their own modeling in the SCAQMD's *2012 Air Quality Management Plan*, a reduction of 432 tons (864,000 pounds) per day of NOx and a reduction of 187 tons (374,000 pounds) per day of VOC would reduce O_3 levels at the highest monitored site by only nine parts per billion. As such, the SCAQMD concludes that it is not currently possible to accurately quantify O_3-related health impacts caused by NOx or VOC emissions from relatively small projects (defined as projects with regional scope) due to photochemistry and regional model limitations (SCAQMD, 2015).

The regional analysis of construction and operational emissions, as shown above indicates that the Project would not exceed the SJVAPCD's significance thresholds, and the Project is consistent with the applicable AQPs. Therefore, the Project's emissions would not have a measurable effect on human health and would not result in significant cumulative health impacts from nonattainment pollutants and impacts would be less than significant.

Conclusion

The proposed Project would not 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.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

None are required.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact AIR-3	Expose sensitive receptors to substantial pollutant concentrations?

Impact Analysis

This discussion addresses whether the proposed Project would expose sensitive receptors to Naturally Occurring Asbestos (NOA), construction-generated fugitive dust (PM_{10}), ROG, NO_X, $PM_{2.5}$, Valley Fever, construction generated DPM and operational health risks from the proposed service station. A sensitive receptor is a person in a population who is particularly susceptible to health effects due to exposure to an air contaminant. The following are land uses (sensitive sites) where sensitive receptors are typically located:

- Long-term health care facilities
- Rehabilitation centers
- Convalescent centers
- Hospitals
- Retirement homes
- Residences
- Schools, playgrounds and childcare centers

The proposed Project is considered a sensitive receptor once operational, however there are not any nearby sources of TAC near the site and impact to these receptors was not evaluated. The nearest off-site sensitive receptors are the residents adjacent to the project site.

Localized Impacts

Emissions occurring at or near the Project 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 pollutants of concern for localized impact in the SJVAB are NO_2 and CO.

The SJVAPCD has provided guidance for screening localized impacts in the GAMAQI that establishes a screening threshold of 100 pounds per day of any criteria pollutant. If a project exceeds 100 pounds per day of any criteria pollutant, then ambient air quality modeling would be necessary. If the Project does not exceed 100 pounds per day of any criteria pollutant, then it can be assumed that it would not cause a violation of an ambient air quality standard.

Construction: Localized Concentrations of PM10, PM2.5, CO, and NO_2

Local construction impacts would be short-term in nature lasting only during the duration of construction. Because of the short duration and limited amount of construction anticipated for the Project, application of best management practices through compliance with Regulation VIII Fugitive Dust Prohibitions to minimize construction emissions, and levels of emissions less than the SJVAPCD's emission significance thresholds, localized construction concentrations are considered less than significant. It should also be noted that the on-site construction emissions would be less than 100 pounds per day for each of the criteria pollutants, as shown in Table 12 below. To present a conservative estimate, on-site emissions for on-road construction vehicles were included in the localized analysis. It should be noted that the estimates below do not include reductions associated with Rule 9510 compliance, which would reduce NO_X and PM_{10} emissions. Based on the SJVAPCD's guidance the construction emissions would not cause an ambient air quality standard violation. Impacts would be less than significant.

Table 12: Localized Concentrations of PM10, PM2.5, CO, and NOX for Construction

Emissions Source	Emissions (pounds per day)			
	NO_X	CO	PM_{10}	PM2.5
Phase One				
2021				
Site Preparation	40.50	21.15	21.70	11.98
Grading	46.40	30.88	11.19	5.48
Building Construction (2021)	17.43	16.58	0.96	0.90
2021 Maximum	*46.40*	*30.88*	*21.70*	*11.98*
2022				
Building Construction (2022)	15.61	16.36	0.81	0.76
Paving	11.12	14.58	0.57	0.52
Architectural Coating	1.41	1.81	0.08	0.08
2022 Maximum	*15.61*	*16.36*	*0.81*	*0.76*
Phase Two				
2023				
Site Preparation	27.52	18.24	20.92	11.27
Grading	34.52	28.05	10.63	4.96
Building Construction	14.38	16.24	0.70	0.66
Paving	10.19	14.58	0.51	0.50
Architectural Coating	1.30	1.81	0.07	0.07
2023 Maximum	*34.52*	*28.05*	*20.92*	*11.27*
Total Construction Duration (Phase One and Phase Two)				
Maximum in Any Calendar Year	46.40	30.88	21.70	11.98
Significance Thresholds	100	100	100	100
Any Year Exceed Significance Thresholds?	No	No	No	No

Notes: PM_{10} and $PM_{2.5}$ emissions are from the unmitigated output and as a result are more conservative as they do not reflect compliance with Regulation VIII—Fugitive PM_{10} Prohibitions. The table only accounts for on-site construction emissions.
Source of Emissions: CalEEMod Output (Attachment A).

Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed April 16, 2021.

Operation: Localized Concentrations of PM10, PM2.5, CO, and NO_2

Localized impacts could occur in areas with a single large source of emissions such as a power plant or with multiple sources concentrated in a small area such as a distribution center. Since the proposed project is proposing the develop 233 single family homes and a park on the project site localized levels of PM10, PM2.5, CO, and NO2 are not expected to exceed localized impacts.

Construction

ROG

During paving operations, ROG is emitted. The amount emitted is dependent on the amount of ROG (or VOC) in the paving materials. There are three types of asphalt that are typically used in paving: asphalt cements, cutback asphalts, and emulsified asphalts. However, SJVAPCD Rule 4641 prohibits the use of the following types of asphalt: rapid cure cutback asphalt; medium cure cutback asphalt; slow cure asphalt that contains more than one-half (0.5) percent of organic compounds that evaporate at 500 degrees Fahrenheit (°F) or lower; and emulsified asphalt containing organic compounds, in excess of 3 percent by volume, that evaporate at 500°F or lower. An exception to this is medium cure asphalt when the National Weather Service official forecast of the high temperature for the 24-hour period following application is below 50°F.

The acute (short-term) health effects from worker direct exposure to asphalt fumes include irritation of the eyes, nose, and throat. Other effects include respiratory tract symptoms and pulmonary function changes. The studies were based on occupational exposure of fumes. Sensitive receptors are not in the immediate vicinity of the fumes; therefore, they would not be subjected to concentrations high enough to evoke a negative response. In addition, the restrictions that are placed on asphalt in the San Joaquin Valley reduce ROG emissions from asphalt and exposure. The impact to sensitive receptors from ROG during construction is less than significant.

Naturally-Occurring Asbestos

According to a map of areas where naturally occurring asbestos in California are likely to occur (U.S. Geological Survey 2011), there are 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.

Fugitive Dust (PM10)

PM10 emissions would not exceed the thresholds of significance, nevertheless, the potential for localized PM10 health impacts are a concern, however, the Project would comply with the SJVAPCD’s Regulation VIII incorporating Best Management Practices for reducing fugitive dust, thus potential impacts are reduced to a less than significant level.

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.

Construction activities would generate fugitive dust that could contain *C. immitis* spores. The Project will minimize the generation of fugitive dust during construction activities by complying with the SJVAPCD's Regulation VIII. Therefore, this regulation would reduce Valley fever impacts to less than significant.

During operations, dust emissions are anticipated to be negligible, because most of the Project area would be occupied by buildings, pavement, and landscaped areas. This condition would preclude the possibility of the Project from generating fugitive dust that may contribute to Valley fever exposure. Impacts would be less than significant.

Health Risk Assessment

Construction

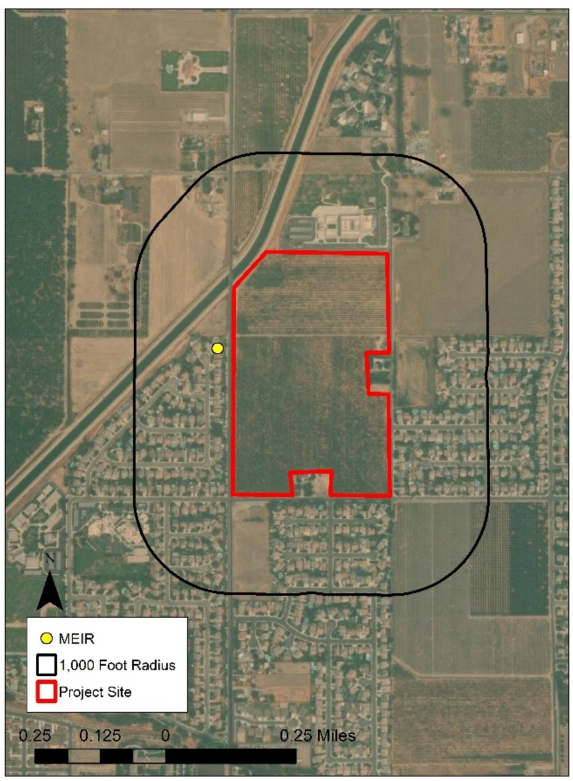
Construction activities have the potential to generate Diesel Particulate Matter (DPM) emissions related to the number and types of equipment typically associated with construction. Off-road, heavy-duty diesel equipment used for site grading, paving, and other construction activities result in the generation of DPM. For construction activity, DPM is the primary air toxic of concern. Particulate exhaust emissions from diesel-fueled engines (i.e., DPM) were identified as a toxic air contaminant (TAC) by the California Air Resources Board (CARB) in 1998. Because of the proximity of sensitive receptors there is the potential for the DPM emissions to result in a health impact. Accordingly, an analysis was prepared to determine if a potential health risk would occur.

A construction HRA was prepared in accordance with SJVAPCD and OEHHA guidance for the proposed project and is included as Appendix B. To assess the project's total health risk impacts, impacts from both construction and operations were considered in this HRA; therefore, the construction HRA is summarized below.

The construction HRA evaluated DPM (represent as exhaust PM2.5) emissions generated during construction of the proposed project and the related health risk impacts for sensitive receptors located within 1,000 feet of the project boundary. A project would result in a significant impact if it would individually expose sensitive receptors to TACs resulting in an increased cancer risk greater than 20 in one million or an increased non-cancer risk of greater than 1.0 on the hazard index. It should be noted that the SJVAPCD's latest threshold of significance for TAC emissions is an increase in cancer risk for the maximally exposed individual of 20 in one million (formerly 10 in one million).

The project site is located within 1,000 feet from existing sensitive receptors that could be exposed to diesel emission exhaust during the construction and operational periods. The nearest sensitive receptors are residents occupying the single-family houses adjacent to the project site to the north and east. Furthermore, there are existing are residences surrounding the project site on all sides (to the north, east, south, and west). There is an existing commercial center west of the southern half of the project site. To estimate the potential cancer risk associated with construction of the proposed project from equipment exhaust (including DPM), a dispersion model was used to translate an emission rate from the source location to concentrations at the receptor locations of interest (i.e., receptors at nearby residences).

Figure 4: Project Site with a 1,000 Foot Buffer



The location of the maximally exposure individual receptor (MEIR) is located on Westwood Boulevard, immediately west of the project site. As discussed above, AERMOD dispersion model was used to predict concentrations of DPM and PM2.5 at sensitive receptors within 1,000 feet of the project site, as recommended by the SJVAPCD. To model emissions, a release height of 3 meters was chosen to represent the release height of construction equipment. Emissions from off-road construction equipment and on-road vehicle travel were distributed throughout the modeled area source.

The current OEHHA guidance recommends that cancer risks be calculated by age groups to account for different breathing rates and sensitivity to TACs. Specifically, it recommends evaluating the risks for the third trimester of pregnancy to age zero (third trimester exposure), ages zero to less than two (infant exposure), ages two to less than 16 (child exposure), and ages 16 to 70 (adult exposure). Age sensitivity factors (ASFs) associated with the different types of exposure are an ASF of 10 for the third trimester and infant exposure, an ASF of 3 for child exposure, and an ASF of 1 for an adult exposure. Also associated with each exposure type are different breathing rates, expressed as liters per kilograms of body weight per day (L/kg-day). As recommended, 95th percentile breathing rates are used for the third trimester and infant exposure, and 80th percentile breathing rates are used for child and adult exposure. These age-specific breathing rates are 361 L/kg-day for the third trimester receptor, 1,090 L/kg-day for the infant receptors, 572 L/kg-day for child receptors, and 233 L/kg-day for adult receptors (OEHHA 2015).. According to OEHHA, the cancer risk for a residential receptor is assumed to start in the third trimester of life.

Results of the construction health risk analysis for the unmitigated emissions are summarized in Table 13. The complete construction HRA prepared for the proposed project, including calculations and AERMOD output data used in the assessment are included in Appendix B.

Table 13: Health Risks from Project Construction at the Maximally Exposed Sensitive Receptor (Unmitigated)

Health Impact Metric	Carcinogenic Inhalation Health Risk in One Million	Chronic Inhalation Hazard Index
Risks and Hazards at the maximally exposed sensitive receptor[1]		
Risks and Hazards: Infant	25.6	0.016
Risks and Hazards: Child	4.03	0.016
Risks and Hazards: Adult	0.61	0.016
Threshold	**20**	**1**
Exceeds Threshold?	**Yes**	**No**

Notes:

[1] The maximally exposed sensitive receptor is located at an existing residence located approximately 100 feet west of the project site.

[2] Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as $PM_{2.5}$ exhaust) by the REL of 5 µg/m^3.

Source: Appendix B.

As shown in Table 13, mitigation would be required to reduce potential impacts from project construction. MM AIR-1 requires the applicant provide documentation to the City of Porterville demonstrating that all off-road diesel-powered construction equipment greater than 50 horsepower meets EPA or ARB Tier 4 off-road emissions standards. Equipment tiers refer to a generation of emission standards established by the EPA and ARB that apply to diesel engines in off-road equipment. Since Tier 1 emission standards were established by the EPA in 1994, increasingly more stringent Tier 2, Tier 3, and Tier 4 (interim and final) standards were adopted by the EPA, as well as CARB. Results of the construction health risk analysis after the incorporation of MM AIR-1 are summarized in Table 14.

Table 14: Health Risks from Project Construction at the Maximally Exposed Sensitive Receptor (Mitigated)

Health Impact Metric	Carcinogenic Inhalation Health Risk in One Million	Chronic Inhalation Hazard Index
Risks and Hazards at the maximally exposed sensitive receptor[1]		
Risks and Hazards: Infant	3.63	0.002
Risks and Hazards: Child	0.57	0.002
Risks and Hazards: Adult	0.08	0.002
Threshold	**20**	**1**
Exceeds Threshold?	**No**	**No**

Notes:

[1] The maximally exposed sensitive receptor is located at an existing residence located approximately 100 feet west of the project site.

[2] Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as $PM_{2.5}$ exhaust) by the REL of 5 µg/m^3.

Source: Appendix B.

Operations

The greatest potential during long-term operations for exposure to TACs is from the use of heavy-duty diesel trucks and stationary generators that use diesel fuel. The proposed project is a 233-unit residential development with park uses. Once operational, the majority of vehicle trips to the project site will be from residents and, as a result, the proposed project would attract very few diesel truck trips. Additionally, the project does not propose any stationary generators on-site. For these reasons, once operational, the proposed project would not be expected to expose nearby sensitive receptors to substantial amounts of air toxics and the project would have a less than significant impact.

Conclusion

Sensitive receptors would not be exposed to substantial pollutant concentrations.

Level of Significance Before Mitigation

Less Than Significant Impact With Mitigation.

Mitigation Measures

MM AIR-1: **Clean Construction Fleet.** The Project Applicant and/or their respective contractors shall submit documentation to the City of Porterville demonstrating that all off-road diesel-powered construction equipment greater than 50 horsepower meets EPA or ARB Tier 5 off-road emission standards.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact AIR-4	Result in other emissions (such as those leading to odors) affecting a substantial number of people?

Impact Analysis

While offensive odors rarely cause any physical harm, they can still be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the SJVAPCD. The occurrence and severity of odor impacts depends on numerous factors, including nature, frequency, and intensity of the source, the wind speed and direction, and the sensitivity of the receptor. The nearest sensitive receptor in the vicinity of the proposed Project site would be the students and faculty at West Hills College, approximately 912 feet south of the Project site, the nearest residential receptor would be the single-family residence located 2,700 feet east of the Project site.

Construction activities associated with the proposed Project could result in short-term odorous emissions from diesel exhaust associated with construction equipment. However, these emissions would be intermittent and would dissipate rapidly from the source. In addition, this diesel-powered equipment would only be present on site temporarily during construction activities. Therefore, construction would not create objectionable odors affecting a substantial number of people, and the impact would be less than significant.

Land uses typically considered associated with odors include wastewater treatment facilities, waste-disposal facilities, or agricultural operations. The proposed Project does not contain land uses typically associated with emitting objectionable odors and is not located within the screening distances to sources of odors recommended by the SJVAPCD. Therefore, the impact would be less than significant.

Conclusion

The proposed Project would not create objectionable odors affecting a substantial number of people.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

None.

Level of Significance After Mitigation

Less Than Significant Impact.

8.0 GREENHOUSE GAS IMPACT ANALYSIS

8.1 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 GHGs, the type, level, and impact of emissions generated by the project must be evaluated.

The following GHG significance thresholds are contained in Appendix G of the CEQA Guidelines:

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

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

This section discusses potential impacts concerning greenhouse gases associated with the proposed project and provides mitigation measures where necessary.

8.1.1 Thresholds

The State CEQA Guidelines indicate that a project would normally have a significant adverse GHG impact is the project would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reduction the emissions of greenhouse gases.

The SJVAPCD’s Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA presents a tiered approach to analyzing project significance with respect to GHG emissions. Project GHG emissions are considered less than significant if they can meet any of the following conditions, evaluated in the order presented:

- Project is exempt from CEQA requirements;
- Project complies with an approved GHG emission reduction plan or GHG mitigation program;
- Project implements Best Performance Standards (BPS); or

- Project demonstrates that specific GHG emissions would be reduced or mitigated by at least 29 percent compared to Business-as-Usual (BAU), including GHG emission reductions achieved since the 2002-2004 baseline period.

On November 20, 2015, the California Supreme Court (Court) issued its decision on the Center for Biological Diversity v. California Department of Fish and Wildlife on the Newhall Ranch project case. The Court determined that there is not substantial evidence to link a specific project's achievement of CARB's Scoping Plan's statewide average reduction below BAU to the conclusion that the project's reduction would meet AB 32's 2020 goals. Furthermore, since the release of SJVAPCD's guidance, SB32 has been issued that requires the state to further reduce GHG emissions beyond the goals laid out in AB32. As a result, the 29 percent reduction in emissions as compared to a BAU standard are outdated and were not used for this analysis.

CEQA Guidelines15064.4 provides guidance for determining the significance of impacts from GHGs as follows:

(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

(1) Quantify greenhouse gas emissions resulting from a project; and/or

(2) Rely on a qualitative analysis or performance-based standards.

(b) In determining the significance of a project's greenhouse gas emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions. The agency's analysis should consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes. A lead agency should consider the following factors, among others, when determining the significance of impacts from greenhouse gas emissions on the environment:

(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;

(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.

(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions (see, e.g., section 15183.5(b)). Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project. In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.

(c) A lead agency may use a model or methodology to estimate greenhouse gas emissions resulting from a project. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change. The lead agency must support its selection of a model or methodology with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use.

Project Threshold

The City of Porterville does not have a qualified Climate Action Plan currently. However, the Project will be required to comply with a series of state and regional GHG reduction plans, including CARB's 2017 Scoping Plan and SJVAPCD's Climate Change Action Plan (CCAP) Measures. These plans include approved GHG emission reduction plans and Project's consistent with these plans would also comply with SB32. Therefore, as SJVAPCD does not have a quantifiable emissions threshold, project significance was determined based on compliance with applicable plans to reduce GHG emissions in accordance with CEQA Guidelines 15064.4(b)(3).

8.2 GHG IMPACT ANALYSIS

Impact GHG-1 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Impact Analysis

The following emissions estimate is consistent with CEQA Guidelines 15064.4. CalEEMod was used to estimate the Project's GHG emissions. Modeling assumptions are described in Section 6:Modeling Parameters and Assumptions.

Constructions Emission Inventory

Construction GHGs would be emitted by the off-road construction equipment and vehicle travel by workers and material deliveries to the project site. The estimated construction GHG emissions are shown in Table 15. Because construction GHG emissions are temporary and reduction measures are limited, a common professional practice is to amortize the construction emissions over the life of the project. A residential project is conservatively assumed to have a life of 30 years.

Table 15: Construction Greenhouse Gas Emissions

Construction Year	$MTCO_2e$
2021 (Phase One)	173
2022 (Phase One)	473
2023 (Phase Two)	696
Total	**1,342**
Amortized over 20 years[1]	44.7

Notes:

1. GHG emissions are amortized over the 30-year life of the proposed project.

Source: Stantec 2021, CalEEMod 2020.4.0.

Operational Emission Inventory

Operational or long-term emissions occur over the life of the project. Sources of emissions may include motor vehicles and trucks, energy usage, water usage, waste generation, and area sources, such as landscaping activities and residential woodburning. Operational GHG emissions associated with the project were estimated using CalEEMod 2020.4.0.

Operational GHG emissions are shown in Table 16.

Table 16: Operational Greenhouse Gas Emissions

Source	Emissions ($MTCO_2e$ per year)
Phase One	
Area	57.4
Energy	344
Mobile	1,294
Waste	66.3

Source	Emissions ($MTCO_2e$ per year)
Water	22.7
Subtotal	*1,785*
Phase Two	
Area	47.1
Energy	283
Mobile	987
Waste	54.5
Water	21.2
Subtotal	*1,392*
Amortized Construction Emissions	44.7
Total	**3,222**

Source: Stantec 2021, CalEEMod 2020.4.0 (Appendix A).

The proposed project's GHG impact is determined by its consistency with applicable statewide and regional GHG reduction plans. As shown in Impact GHG-2, the proposed project would be consistent with the CARB's 2017 Scoping Plan, Tulare COG's RTP/SCS, and the City's General Plan goals that aim to reduce air quality and energy (which in turn reduce GHG emissions), as such the Project will comply with applicable reduction plans and GHG emissions are less than significant.

The proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; the impact is less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact GHG-2 Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The proposed project would have a significant impact with respect to GHG emissions and global climate change if it would substantially conflict with the provisions of Section 15064.4(b) of the *CEQA Guidelines.*

Pursuant to Appendix G of the *CEQA Guidelines*, a significant GHG impact is identified if the project could conflict with applicable GHG reduction plans, policies, or regulations. Development projects would be subject to complying with SB 32, Tulare COG's RTP/SCS, and the City's applicable goals. SB 32 is a statewide reduction goal aimed at reducing emissions to 40% below 1990 levels by 2030. CARB's 2017 Scoping Plan sets a framework for the State to meet the reduction targets of SB 32.

Consistency with the Final 2017 Scoping Plan Update

CARB issued the Final 2017 Scoping Plan Update in November 2017 and establishes emissions reduction strategies necessary to meet SB 32's 2030 reduction goals. Table 17, identifies the Scoping Plan policies that are applicable to the proposed project. As shown, the proposed project would be consistent with the Scoping Plan.

Table 17: Project Consistency with Applicable 2017 Scoping Plan Greenhouse Gas Reduction Strategies

Measure Name	Measure Description	Consistency Determination
SB 350 50% Renewable Mandate.	Utilities subject to the legislation will be required to increase their renewable energy mix from 33% in 2020 to 50% in 2030.	**Consistent.** The proposed project will purchase electricity from a utility subject to the SB 350 Renewable Mandate. In addition, the proposed project includes renewable energy through roof top solar systems.
Low Carbon Fuel Standard	This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	**Consistent.** Vehicles accessing the proposed project site will use fuel containing lower carbon content as the fuel standard is implemented.
Mobile Source Strategy (Cleaner Technology and Fuels Scenario)	Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicle programs. The strategy includes a goal of having 4.2 million ZEVs on the road by 2030 and increasing numbers of ZEV trucks and buses.	**Consistent.** Future residents can be expected to purchase increasing numbers of more fuel efficient and zero emission cars and trucks each year. The 2019 CalGreen Code requires electrical service in new single-family housing to be EV charger-ready. Home deliveries will be made by increasing numbers of ZEV delivery trucks.

Measure Name	Measure Description	Consistency Determination
Short-Lived Climate Pollutant (SLCP) Reduction Strategy	The strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.	**Consistent.** SJVAPCD limits wood burning devices in new homes. Therefore, the proposed project will not generate black carbon.
SB 375 Sustainable Communities Strategies	Requires Regional Transportation Plans to include a sustainable communities' strategy for reduction of per capita vehicle miles traveled.	**Consistent.** The proposed project would provide housing in the region that is consistent with the growth projections in the 2018 Regional Transportation Plan/Sustainable Communities Strategy (SCS). The project is not within an SCS priority area and so is not subject to requirements applicable to those areas. Furthermore, the project site lies along Porterville Transit Line 2., which has stations along Westfield Avenue.
Post-2020 Cap-and-Trade Program	The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	**Consistent.** The post-2020 Cap-and-Trade Program indirectly affects people who use the products and services produced by the regulated industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap- and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the program's first compliance period.

Source of Measures: CARB, 2017

Source of Consistency Determination: Stantec Consulting Services Inc, 2021

Based on this evaluation, this analysis finds the project would be consistent with all feasible and applicable strategies recommended in the 2017 Scoping Plan Update.

Consistency with SJVAPCD CCAP

The SJVAPCD has adopted a CCAP, which includes suggested BPS for proposed residential development projects. Appendix J of the SJVAPCD Final Staff Report for the CCAP contains GHG reduction measures that would be applicable to the proposed project. The proposed project's consistency with these measures is included in Table 18 below. As shown in the table, the project would be consistent with applicable CCAP measures.

Table 18: Project Consistency with Applicable SJVAPCD CCAP GHG Reduction Measures

Measure Name	Measure Description	Project Consistency
Bicycle/Pedestrian Transit Measures		
5 – Pedestrian Network	The project provides a pedestrian access network that internally links all uses and connects to existing external streets and pedestrian facilities. Existing facilities are defined as those facilities that are physically constructed and ready for use prior to the first 20 percent of the projects occupancy permits being granted.	**Consistent.** The proposed project would provide pedestrian accommodations throughout the project site and connecting offsite to existing external streets and pedestrian facilities.
6 – Pedestrian barriers minimized	Site design and building placement minimize barriers to pedestrian access and interconnectivity. Physical barriers such as walls, berms, landscaping, and slopes between residential and nonresidential uses that impede bicycle or pedestrian circulation are eliminated. Barriers to pedestrian access of neighboring facilities and sites are minimized. This measure is not meant to prevent the limited use of barriers to ensure public safety by prohibiting access to hazardous areas, etc.	**Consistent.** The proposed project would provide pedestrian accommodations throughout the project site and connecting offsite to existing external streets and pedestrian facilities.
Site Design Measures		
18 - Residential Density with No Transit (3-6 Du/acre)	Project provides high-density residential development. Density is calculated by determined the number of units per acre within the residential portion of the project's net lot area.	**Consistent**. The Project is seeking a zone change on APN 245-010-087 from Very Low Density Residential to Low Density Residential. The site will provide 233 housing units over 56 acres of development, a density of 4.16 Du/acre.
Building Component Measures		
26 - Onsite renewable energy system	Project provides onsite renewable energy system(s).	**Consistent.** The 2019 California Building Energy Efficiency Standards requires that all new single-family homes and multi-family buildings under three stories must conform to the new solar code that requires the installation of rooftop solar photovoltaic systems be equipped on all new homes after January 1, 2020. Therefore, the Project will be required to comply with these standards.
Additional GHG Emission Reduction Measures Requiring Additional Investigation		
8 - Open Space	Preserve and create open space and parks. Preserve existing trees, and plant replacement trees at a set ratio.	**Consistent.** The Project will develop a 3.5-acre park in the center of the Project site and will plant at least one tree at each lot.
11- Vehicle Idling	Limit idling for commercial vehicles, including delivery and construction vehicles.	**Consistent.** CARB limits idling of diesel vehicles to 5 minutes. The Project will comply as applicable.

Measure Name	Measure Description	Project Consistency
16-Energy Efficient Appliances	Install energy efficient heating and cooling systems, appliances and equipment, and control systems.	**Consistent.** The Project will be designed to be compliant with the 2019 California Building Standards and the California Energy Commission's regulations on home appliances.
17 - Renewable Energy Use	Install Photovoltaic roofing tiles for solar power.	**Consistent.** The 2019 California Building Energy Efficiency Standards requires that all new single-family homes and multi-family buildings under three stories must conform to the new solar code that requires the installation of rooftop solar photovoltaic systems be equipped on all new homes after January 1, 2020. Therefore, the Project will be required to comply with these standards.
20 - Tree Plants	Protect existing trees and encourage the planting of new trees. Adopt a tree protection and replacement ordinance, e.g., requiring that trees larger than a specified diameter that are removed to accommodate development must be replaced at a set ratio.	**Consistent.** The existing land uses on site are primarily agricultural and, as a result, few trees are currently on the project site. The Project will develop a 3.5-acre park in the center of the Project site and will plant at least one tree at each lot.

Source: Stantec 2021. SJVAPCD, 2009.

Consistency with Tulare COG RTP/SCS

The TCAG's2018 RTP/SCS includes a series of goals for the region that would reduce GHG emissions based on the land use consistency and the reduction of vehicle trips. The proposed project's consistency with these measures is included in Table 19 below. As shown in the table, the project would be consistent with applicable TCAG measures.

Table 19: Project Consistency with Applicable Tulare COG Goals

Goals	Consistency
Provide an efficient, integrated, multi-modal transportation system for the movement of people and goods that enhance the physical, economic, and social environment in the Tulare County Region.	**Not Applicable**. This goal is aimed at transportation systems and local jurisdictions. The Project will not interfere with this goal and will place new residents near an existing bus station.
Encourage and support an efficient, maintained, and safe circulation network that maximizes circulations, longevity, and fiscal responsibility while minimizing environmental impacts.	**Consistent.** The Project will construct a new roadway network that will connect the new development to the existing roadways. The new roadways will further connect Porterville and maximize the roadway circulation.

Goals	Consistency
Provide a safe, secure, coordinated and efficient public transit system that can reasonably meet the needs of the residents.	**Not Applicable.** This goal is aimed at transportation systems and local jurisdictions. The Project will not interfere with this goal and will place new residents near an existing bus station.
Support development of a regional system of airports that meets the air commerce and general aviation needs of the county.	**Not Applicable**. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Promote safe, economical, convenient rail systems and schedules that meet the needs of passenger and freight services in the region.	**Not Applicable.** This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Provide a transportation system that efficiently and effectively transports goods to, from, within, and through Tulare County.	**Not Applicable**. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Improve goods movement within the region to increase economic vitality, meet the growing needs of frieght and passenger services, and improve traffic safety, air quality, and overall mobility.	**Not Applicable.** This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Improve, enhance, and expand the region's bicycle and pedestrian systems and connectivity to those systems, while keeping them safe and convenient.	**Consistent.** The Project will add new roads through an existing agricultural area. The subdivision will connect existing roads and place new residences near existing schools. The increase in roadways and residential areas will result in more pedestrian accessible areas and walkways.
Preserve and enhance regional transportation roads and corridors.	**Consistent.** The Project will add new roadways and expand Porterville's existing roadway system.
Promote the improvement of air quality and greenhouse gas reductions through congestion management, coordination of land use, housing, and transportation systems, provision of alternative modes of transportation, and provision of incentives that reduce vehicle miles traveled.	**Consistent**. The Project will construct a new subdivision near existing single-family homes and near multiple schools. In addition, the site is adjacent to Porterville Transportation bus line 2 that will promote alternative modes of transportation and reduce vehicle miles traveled.

Goals	Consistency
Promote public health opportunities for residents to bicycle and walk to destinations such as home, work, school, medical facilities, and commercial and service systems.	**Consistent.** The Project will add new roads through an existing agricultural area. The subdivision will connect existing roads and place new residences near existing schools. The increase in roadways and residential areas will result in more pedestrian accessible areas and walkways.
Improve transportation mobility and operations by improving and utilizing TSM strategies, TDM measures, TCMs, and ITS programs.	**Not Applicable**. This goal is aimed at transportation systems and local jurisdictions. The Project will not interfere with this goal and will place new residents near an existing bus station.
Ensure that transportation investments do not discriminate on the basis of race, color, national origin, sex, age, or disability.	**Not Applicable.** This goal is aimed at transportation systems and local jurisdictions. The Project will not interfere with this goal.
Support the development and implementation of emerging technologies in the surface transportation system.	**Not Applicable.** This goal is aimed at transportation systems and local jurisdictions. The Project will not interfere with this goal.

Source: Stantec 2021. TCAG 2018.

Conclusion

The Project proposes to increase the density of allowable residential development on the lot and build residences near existing schools and an existing residential community. Development will place 4.15 homes/acre and allow pedestrian access and increased housing opportunities in the area. The site lies along Porterville Transit Line 2, which runs along Westfield Ave. As a result, the site will place residences in walking distance of transit and serve to further connect the areas pedestrian access while bringing students within walking distance of several schools. Finally, the Project will be required to adhere to Title 24 and the latest California Building Standards, which will require each single-family home to include photovoltaic cells. The proposed project would not conflict with the goals and objectives of the SJVAPCD's CCAP, with CARB's 2017 Scoping Plan, or any other State or regional plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions. As such, the proposed project would not conflict with an applicable plan; therefore, impacts would be considered less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

9.0 ENERGY

9.1 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 energy the following must be evaluated.

Would the project:

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

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

9.2 ENERGY IMPACT ANALYSIS

This section discusses potential energy impacts associated with the proposed project and provides mitigation measures where necessary.

Impact ENERGY-1	**Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

Impact Analysis

The energy requirements for the proposed project were determined using the construction and operational estimates generated from the Methodology and Modeling Assumptions. The calculation worksheets for energy consumption are provided in Appendix C.

This impact addresses the energy consumption from both the short-term construction and long-term operations and are discussed separately below.

Short-Term Construction

Off-Road Equipment

Table 20 provides estimates of the project's construction fuel consumption from off-road construction equipment.

Table 20: Construction Off-Road Fuel Consumption

Project Component	Total Annual Fuel Consumption (gallons)
Phase One Construction Off-Road Equipment	15,637
Phase Two Construction Off-Road Equipment	15,631
Total	31,268
Source: Appendix C.	

As shown in Table 19, construction activities associated with the proposed project would be estimated to consume 31,268 gallons of diesel fuel. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in other parts of the state.

On-Road Vehicles

On-road vehicles for construction workers, vendors, and haulers would require fuel for travel to and from the site during construction. Table 21 provides an estimate of the total on-road vehicle fuel usage during construction. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in other parts of the state. Therefore, it is expected that construction fuel consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than at other construction sites in the region.

Table 21: Construction On-Road Fuel Consumption

Project Component	Average Fuel Economy (miles/gallon)	Total VMT	Total Fuel Consumption (gallons)
Phase One			
Worker Trips	26.95	437,558	17,570
Vendor Trips	9.34	115,340	12,348
Haul Trips	6.54	0	0
Phase Two			
Worker Trips	26.95	569,408	21,126
Vendor Trips	9.34	140,160	15,006
Haul Trips	6.54	0	0
Total Construction On-Road Trips		**1,262,466**	**66,050**

Project Component	Average Fuel Economy (miles/gallon)	Total VMT	Total Fuel Consumption (gallons)
Notes: Calculations use unrounded numbers; totals may not appear to sum exactly due to rounding. VMT = vehicle miles traveled Source: Appendix C			

Other Construction Energy Consumption

Other equipment could include construction lighting, field services (office trailers), and electrically driven equipment such as pumps and other tools. As on-site construction activities would be restricted to permissible construction hours, it is anticipated that the use of construction lighting would be minimal. Singlewide mobile office trailers, which are commonly used in construction staging areas, generally range in size from 160 square feet to 720 square feet. Table 22 shows the energy consumption estimated for a typical 720-square-foot trailer during construction over Phase One and Phase Two. There is a gap between the end of Phase One and the start of Phase Two, it was conservatively assumed that the trailer would remain occupied and using energy during that time.

Table 22: Construction Trailer

Project Component	Kilowatt hours per year (kWh/yr)
Construction	15,644
Source: Appendix C	

There are no unusual project characteristics that would necessitate the use of construction vehicles or equipment that would be less energy efficient than at comparable construction sites in other parts of the state. Therefore, it is expected that construction energy consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than at other construction sites in the region.

Long-term Operations

Transportation Energy Demand

Table 23 provides an estimate of the daily and annual fuel consumed by vehicles traveling to and from the project site. These estimates were derived using the same assumptions used in the operational air quality analysis for the proposed project. For details relating assumptions used in the calculations, please refer to Appendix C.

Table 22: Long-Term Operational Vehicle Fuel Consumption

Vehicle Type	Percent of Vehicle Trips	Daily VMT	Annual VMT	Average Fuel Economy (miles/gallon)[1]	Total Daily Fuel Consumption (gallons)	Total Annual Fuel Consumption (gallons)
Passenger Cars (LDA)	51.0%	8,722	3,183,626	33.45	260.8	95,178
Light Trucks and Medium Duty Vehicles (LDT1, LDT2, MDV)	39.3%	6,725	2,454,614	24.24	277.5	101,270
Light-Heavy to Heavy-Heavy Diesel Trucks (LHD1, LHD2, MHDT, HHDT)	6.7%	1,151	420,234	8.66	119.7	43,704
Motorcycles (MCY)	2.4%	403	147,037	37.84	10.6	3,885
Other (OBUS, UBUS, SBUS, MH)	0.6%	104	38,117	6.89	14.6	5,332
Total	**100%**	**17,106**	**6,243,629**	—	**683.2**	**249,369**

Notes:
VMT = vehicle miles traveled
Percent of Vehicle Trips and VMT provided by CalEEMod.
“Other” consists of buses and motor homes.
Source: Appendix C

As shown in Table 25, annual vehicular fuel consumption is estimated to be 249,369 gallons of a combination of gasoline and diesel fuel.

Building Energy Demand

As shown in Appendix C the proposed project is estimated to demand 1,849,780 kilowatt hours of electricity and 3,048,506 kilo-British Thermal Units of natural gas, respectively, on an annual basis.

It would be expected that building energy consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than for any other similar buildings in the region. Current state regulatory requirements for new building construction contained in the 2019 CALGreen and Title 24 standards would increase energy efficiency and reduce energy demand in comparison to existing commercial structures, and therefore would reduce actual environmental effects associated with energy use from the proposed project. Additionally, the CALGreen and Title 24 standards have increased efficiency standards through each update. Further, the most recent CALGreen standards require single-family housing constructed after January 1, 2020 to include rooftop photovoltaic cells. The reductions from the energy generation was not accounted for in order to provide a conservative analysis.

Therefore, while the proposed project would result in increased electricity and natural gas demand, the electricity and natural gas would be consumed more efficiently and would be typical of residential development. Compliance with future building code standards would result in increased energy efficiency.

For the above reasons, energy impacts would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

None.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact ENERGY-2	**Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?**

The proposed project would comply with federal, State, and local regulations aimed at reducing energy consumption. Local regulations have been developed in accordance with federal and State energy regulations, such as the California Energy Code Building Energy Efficiency Standards (CCR Title 24, Part 6), the CALGreen Code (CCR Title 24, Part 11), and SB 743, which are also aimed at reducing energy consumption.

The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The impact would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

None.

Level of Significance After Mitigation

Less Than Significant Impact.

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APPENDIX A

CRITERIA AIR POLLUTANT AND GHG EMISSIONS RESULTS

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Lombardi Development - Phase 1

Tulare County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	9.08	Acre	9.08	395,524.80	0
Single Family Housing	128.00	Dwelling Unit	19.34	230,400.00	366

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	51
Climate Zone	7			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage adjusted to account for the project site.

Construction Phase - Construction will take place over one year (October 2021 to October 2022)

Grading - Grading balanced on-site.

Sequestration - At least one tree will be planted at each lot.

Construction Off-road Equipment Mitigation - SJVAPCD Rule 8021.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
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tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	35.00	14.00
tblConstructionPhase	NumDays	440.00	200.00
tblConstructionPhase	NumDays	45.00	25.00
tblConstructionPhase	NumDays	35.00	12.00
tblConstructionPhase	NumDays	20.00	10.00

tblLandUse	LotAcreage	41.56	19.34
tblSequestration	NumberOfNewTrees	0.00	128.00

2.0 Emissions Summary

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					
2021	0.1210	1.1476	0.8933	1.9100e-003	0.2503	0.0516	0.3019	0.1062	0.0478	0.1540	0.0000	170.6025	170.6025	0.0373	4.7200e-003	172.9432
2022	2.4940	1.8204	2.1400	5.1400e-003	0.1899	0.0774	0.2673	0.0515	0.0728	0.1243	0.0000	464.6741	464.6741	0.0563	0.0244	473.3555
Maximum	**2.4940**	**1.8204**	**2.1400**	**5.1400e-003**	**0.2503**	**0.0774**	**0.3019**	**0.1062**	**0.0728**	**0.1540**	**0.0000**	**464.6741**	**464.6741**	**0.0563**	**0.0244**	**473.3555**

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					
2021	0.0441	0.5658	0.9955	1.9100e-003	0.2503	4.5600e-003	0.2549	0.1062	4.4800e-003	0.1107	0.0000	170.6023	170.6023	0.0373	4.7200e-003	172.9430
2022	2.3892	1.4140	2.2841	5.1400e-003	0.1899	0.0124	0.2023	0.0515	0.0122	0.0637	0.0000	464.6739	464.6739	0.0563	0.0244	473.3552
Maximum	**2.3892**	**1.4140**	**2.2841**	**5.1400e-003**	**0.2503**	**0.0124**	**0.2549**	**0.1062**	**0.0122**	**0.1107**	**0.0000**	**464.6739**	**464.6739**	**0.0563**	**0.0244**	**473.3552**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**6.95**	**33.30**	**-8.12**	**0.00**	**0.00**	**86.82**	**19.67**	**0.00**	**86.18**	**37.34**	**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	**10-1-2021**	**12-31-2021**	1.2679	0.6103
2	**1-1-2022**	**3-31-2022**	0.7549	0.5660
3	**4-1-2022**	**6-30-2022**	0.7547	0.5637
4	**7-1-2022**	**9-30-2022**	2.6305	2.4979
		Highest	2.6305	2.4979

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	1.1842	0.0589	0.9719	3.6000e-004		9.1300e-003	9.1300e-003		9.1300e-003	9.1300e-003	0.0000	57.0032	57.0032	2.5600e-003	1.0200e-003	57.3702
Energy	0.0164	0.1402	0.0596	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	342.5309	342.5309	0.0183	4.8200e-003	344.4252
Mobile	0.6939	1.2339	6.4478	0.0137	1.2573	0.0143	1.2717	0.3367	0.0135	0.3502	0.0000	1,270.9330	1,270.9330	0.0742	0.0713	1,294.0308
Waste						0.0000	0.0000		0.0000	0.0000	26.7461	0.0000	26.7461	1.5807	0.0000	66.2623
Water						0.0000	0.0000		0.0000	0.0000	2.6458	11.2664	13.9122	0.2727	6.5300e-003	22.6762
Total	**1.8946**	**1.4329**	**7.4793**	**0.0149**	**1.2573**	**0.0348**	**1.2921**	**0.3367**	**0.0340**	**0.3706**	**29.3919**	**1,681.7335**	**1,711.1254**	**1.9484**	**0.0837**	**1,784.7646**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	1.1842	0.0589	0.9719	3.6000e-004		9.1300e-003	9.1300e-003		9.1300e-003	9.1300e-003	0.0000	57.0032	57.0032	2.5600e-003	1.0200e-003	57.3702
Energy	0.0164	0.1402	0.0596	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	342.5309	342.5309	0.0183	4.8200e-003	344.4252
Mobile	0.6939	1.2339	6.4478	0.0137	1.2573	0.0143	1.2717	0.3367	0.0135	0.3502	0.0000	1,270.9330	1,270.9330	0.0742	0.0713	1,294.0308
Waste						0.0000	0.0000		0.0000	0.0000	26.7461	0.0000	26.7461	1.5807	0.0000	66.2623
Water						0.0000	0.0000		0.0000	0.0000	2.6458	11.2664	13.9122	0.2727	6.5300e-003	22.6762
Total	**1.8946**	**1.4329**	**7.4793**	**0.0149**	**1.2573**	**0.0348**	**1.2921**	**0.3367**	**0.0340**	**0.3706**	**29.3919**	**1,681.7335**	**1,711.1254**	**1.9484**	**0.0837**	**1,784.7646**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	90.6240
Total	**90.6240**

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	10/1/2021	10/14/2021	5	10	
2	Grading	Grading	10/15/2021	11/18/2021	5	25	
3	Building Construction	Building Construction	11/19/2021	8/25/2022	5	200	
4	Paving	Paving	8/26/2022	9/12/2022	5	12	
5	Architectural Coating	Architectural Coating	9/13/2022	9/30/2022	5	14	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 75

Acres of Paving: 9.08

Residential Indoor: 466,560; Residential Outdoor: 155,520; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 23,731 (Architectural Coating – sqft)

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

OffRoad Equipment

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	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	212.00	79.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	42.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 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					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0983**	**0.0102**	**0.1085**	**0.0505**	**9.4000e-003**	**0.0599**	**0.0000**	**16.7179**	**16.7179**	**5.4100e-003**	**0.0000**	**16.8530**

3.2 Site Preparation - 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	3.8000e-004	2.9000e-004	3.0000e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6087	0.6087	2.0000e-005	2.0000e-005	0.6160
Total	**3.8000e-004**	**2.9000e-004**	**3.0000e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6087**	**0.6087**	**2.0000e-005**	**2.0000e-005**	**0.6160**

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					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4800e-003	0.0608	0.1148	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
Total	**3.4800e-003**	**0.0608**	**0.1148**	**1.9000e-004**	**0.0983**	**3.1000e-004**	**0.0986**	**0.0505**	**3.1000e-004**	**0.0508**	**0.0000**	**16.7178**	**16.7178**	**5.4100e-003**	**0.0000**	**16.8530**

3.2 Site Preparation - 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	3.8000e-004	2.9000e-004	3.0000e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6087	0.6087	2.0000e-005	2.0000e-005	0.6160
Total	**3.8000e-004**	**2.9000e-004**	**3.0000e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6087**	**0.6087**	**2.0000e-005**	**2.0000e-005**	**0.6160**

3.3 Grading - 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					
Fugitive Dust					0.1150	0.0000	0.1150	0.0457	0.0000	0.0457	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0524	0.5800	0.3860	7.8000e-004		0.0248	0.0248		0.0228	0.0228	0.0000	68.1187	68.1187	0.0220	0.0000	68.6695
Total	**0.0524**	**0.5800**	**0.3860**	**7.8000e-004**	**0.1150**	**0.0248**	**0.1399**	**0.0457**	**0.0228**	**0.0685**	**0.0000**	**68.1187**	**68.1187**	**0.0220**	**0.0000**	**68.6695**

3.3 Grading - 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	1.0500e-003	8.1000e-004	8.3300e-003	2.0000e-005	1.9900e-003	1.0000e-005	2.0000e-003	5.3000e-004	1.0000e-005	5.4000e-004	0.0000	1.6909	1.6909	7.0000e-005	6.0000e-005	1.7110
Total	**1.0500e-003**	**8.1000e-004**	**8.3300e-003**	**2.0000e-005**	**1.9900e-003**	**1.0000e-005**	**2.0000e-003**	**5.3000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.6909**	**1.6909**	**7.0000e-005**	**6.0000e-005**	**1.7110**

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					0.1150	0.0000	0.1150	0.0457	0.0000	0.0457	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0126	0.2409	0.4590	7.8000e-004		1.2700e-003	1.2700e-003		1.2700e-003	1.2700e-003	0.0000	68.1187	68.1187	0.0220	0.0000	68.6694
Total	**0.0126**	**0.2409**	**0.4590**	**7.8000e-004**	**0.1150**	**1.2700e-003**	**0.1163**	**0.0457**	**1.2700e-003**	**0.0469**	**0.0000**	**68.1187**	**68.1187**	**0.0220**	**0.0000**	**68.6694**

3.3 Grading - 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	1.0500e-003	8.1000e-004	8.3300e-003	2.0000e-005	1.9900e-003	1.0000e-005	2.0000e-003	5.3000e-004	1.0000e-005	5.4000e-004	0.0000	1.6909	1.6909	7.0000e-005	6.0000e-005	1.7110
Total	**1.0500e-003**	**8.1000e-004**	**8.3300e-003**	**2.0000e-005**	**1.9900e-003**	**1.0000e-005**	**2.0000e-003**	**5.3000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.6909**	**1.6909**	**7.0000e-005**	**6.0000e-005**	**1.7110**

3.4 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	0.0295	0.2702	0.2569	4.2000e-004		0.0149	0.0149		0.0140	0.0140	0.0000	35.9038	35.9038	8.6600e-003	0.0000	36.1203
Total	**0.0295**	**0.2702**	**0.2569**	**4.2000e-004**		**0.0149**	**0.0149**		**0.0140**	**0.0140**	**0.0000**	**35.9038**	**35.9038**	**8.6600e-003**	**0.0000**	**36.1203**

3.4 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	4.4800e-003	0.0832	0.0237	2.6000e-004	8.0900e-003	1.5000e-003	9.5900e-003	2.3400e-003	1.4300e-003	3.7700e-003	0.0000	25.3371	25.3371	2.5000e-004	3.8300e-003	26.4840
Worker	0.0138	0.0106	0.1095	2.4000e-004	0.0262	1.6000e-004	0.0263	6.9600e-003	1.4000e-004	7.1000e-003	0.0000	22.2254	22.2254	9.0000e-004	8.1000e-004	22.4894
Total	**0.0183**	**0.0939**	**0.1333**	**5.0000e-004**	**0.0343**	**1.6600e-003**	**0.0359**	**9.3000e-003**	**1.5700e-003**	**0.0109**	**0.0000**	**47.5625**	**47.5625**	**1.1500e-003**	**4.6400e-003**	**48.9734**

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	8.2700e-003	0.1691	0.2770	4.2000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003	0.0000	35.9037	35.9037	8.6600e-003	0.0000	36.1203
Total	**8.2700e-003**	**0.1691**	**0.2770**	**4.2000e-004**		**1.3100e-003**	**1.3100e-003**		**1.3100e-003**	**1.3100e-003**	**0.0000**	**35.9037**	**35.9037**	**8.6600e-003**	**0.0000**	**36.1203**

3.4 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	4.4800e-003	0.0832	0.0237	2.6000e-004	8.0900e-003	1.5000e-003	9.5900e-003	2.3400e-003	1.4300e-003	3.7700e-003	0.0000	25.3371	25.3371	2.5000e-004	3.8300e-003	26.4840
Worker	0.0138	0.0106	0.1095	2.4000e-004	0.0262	1.6000e-004	0.0263	6.9600e-003	1.4000e-004	7.1000e-003	0.0000	22.2254	22.2254	9.0000e-004	8.1000e-004	22.4894
Total	**0.0183**	**0.0939**	**0.1333**	**5.0000e-004**	**0.0343**	**1.6600e-003**	**0.0359**	**9.3000e-003**	**1.5700e-003**	**0.0109**	**0.0000**	**47.5625**	**47.5625**	**1.1500e-003**	**4.6400e-003**	**48.9734**

3.4 Building Construction - 2022

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	0.1442	1.3195	1.3827	2.2800e-003		0.0684	0.0684		0.0643	0.0643	0.0000	195.8078	195.8078	0.0469	0.0000	196.9806
Total	**0.1442**	**1.3195**	**1.3827**	**2.2800e-003**		**0.0684**	**0.0684**		**0.0643**	**0.0643**	**0.0000**	**195.8078**	**195.8078**	**0.0469**	**0.0000**	**196.9806**

3.4 Building Construction - 2022

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	0.0149	0.3728	0.1065	1.4000e-003	0.0441	4.2300e-003	0.0484	0.0128	4.0500e-003	0.0168	0.0000	134.6687	134.6687	9.2000e-004	0.0203	140.7427
Worker	0.0685	0.0504	0.5391	1.2800e-003	0.1427	7.9000e-004	0.1435	0.0379	7.3000e-004	0.0387	0.0000	117.8672	117.8672	4.3600e-003	4.0200e-003	119.1737
Total	**0.0834**	**0.4232**	**0.6456**	**2.6800e-003**	**0.1868**	**5.0200e-003**	**0.1919**	**0.0507**	**4.7800e-003**	**0.0555**	**0.0000**	**252.5359**	**252.5359**	**5.2800e-003**	**0.0243**	**259.9164**

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	0.0451	0.9221	1.5103	2.2800e-003		7.1500e-003	7.1500e-003		7.1500e-003	7.1500e-003	0.0000	195.8076	195.8076	0.0469	0.0000	196.9804
Total	**0.0451**	**0.9221**	**1.5103**	**2.2800e-003**		**7.1500e-003**	**7.1500e-003**		**7.1500e-003**	**7.1500e-003**	**0.0000**	**195.8076**	**195.8076**	**0.0469**	**0.0000**	**196.9804**

3.4 Building Construction - 2022

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	0.0149	0.3728	0.1065	1.4000e-003	0.0441	4.2300e-003	0.0484	0.0128	4.0500e-003	0.0168	0.0000	134.6687	134.6687	9.2000e-004	0.0203	140.7427
Worker	0.0685	0.0504	0.5391	1.2800e-003	0.1427	7.9000e-004	0.1435	0.0379	7.3000e-004	0.0387	0.0000	117.8672	117.8672	4.3600e-003	4.0200e-003	119.1737
Total	**0.0834**	**0.4232**	**0.6456**	**2.6800e-003**	**0.1868**	**5.0200e-003**	**0.1919**	**0.0507**	**4.7800e-003**	**0.0555**	**0.0000**	**252.5359**	**252.5359**	**5.2800e-003**	**0.0243**	**259.9164**

3.5 Paving - 2022

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	6.6200e-003	0.0668	0.0875	1.4000e-004		3.4100e-003	3.4100e-003		3.1300e-003	3.1300e-003	0.0000	12.0165	12.0165	3.8900e-003	0.0000	12.1137
Paving	0.0119					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0185**	**0.0668**	**0.0875**	**1.4000e-004**		**3.4100e-003**	**3.4100e-003**		**3.1300e-003**	**3.1300e-003**	**0.0000**	**12.0165**	**12.0165**	**3.8900e-003**	**0.0000**	**12.1137**

3.5 Paving - 2022

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	3.4000e-004	2.5000e-004	2.7100e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5922	0.5922	2.0000e-005	2.0000e-005	0.5987
Total	**3.4000e-004**	**2.5000e-004**	**2.7100e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5922**	**0.5922**	**2.0000e-005**	**2.0000e-005**	**0.5987**

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	2.0000e-003	0.0602	0.1038	1.4000e-004		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	12.0165	12.0165	3.8900e-003	0.0000	12.1137
Paving	0.0119					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0139**	**0.0602**	**0.1038**	**1.4000e-004**		**2.2000e-004**	**2.2000e-004**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**12.0165**	**12.0165**	**3.8900e-003**	**0.0000**	**12.1137**

3.5 Paving - 2022

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	3.4000e-004	2.5000e-004	2.7100e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5922	0.5922	2.0000e-005	2.0000e-005	0.5987
Total	**3.4000e-004**	**2.5000e-004**	**2.7100e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5922**	**0.5922**	**2.0000e-005**	**2.0000e-005**	**0.5987**

3.6 Architectural Coating - 2022

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	2.2450					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4300e-003	9.8600e-003	0.0127	2.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	1.7873	1.7873	1.2000e-004	0.0000	1.7902
Total	**2.2464**	**9.8600e-003**	**0.0127**	**2.0000e-005**		**5.7000e-004**	**5.7000e-004**		**5.7000e-004**	**5.7000e-004**	**0.0000**	**1.7873**	**1.7873**	**1.2000e-004**	**0.0000**	**1.7902**

3.6 Architectural Coating - 2022

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	1.1200e-003	8.3000e-004	8.8500e-003	2.0000e-005	2.3400e-003	1.0000e-005	2.3500e-003	6.2000e-004	1.0000e-005	6.3000e-004	0.0000	1.9344	1.9344	7.0000e-005	7.0000e-005	1.9559
Total	**1.1200e-003**	**8.3000e-004**	**8.8500e-003**	**2.0000e-005**	**2.3400e-003**	**1.0000e-005**	**2.3500e-003**	**6.2000e-004**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**1.9344**	**1.9344**	**7.0000e-005**	**7.0000e-005**	**1.9559**

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	2.2450					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8000e-004	7.4200e-003	0.0128	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.7873	1.7873	1.2000e-004	0.0000	1.7902
Total	**2.2454**	**7.4200e-003**	**0.0128**	**2.0000e-005**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**1.7873**	**1.7873**	**1.2000e-004**	**0.0000**	**1.7902**

3.6 Architectural Coating - 2022

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	1.1200e-003	8.3000e-004	8.8500e-003	2.0000e-005	2.3400e-003	1.0000e-005	2.3500e-003	6.2000e-004	1.0000e-005	6.3000e-004	0.0000	1.9344	1.9344	7.0000e-005	7.0000e-005	1.9559
Total	**1.1200e-003**	**8.3000e-004**	**8.8500e-003**	**2.0000e-005**	**2.3400e-003**	**1.0000e-005**	**2.3500e-003**	**6.2000e-004**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**1.9344**	**1.9344**	**7.0000e-005**	**7.0000e-005**	**1.9559**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive 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	0.6939	1.2339	6.4478	0.0137	1.2573	0.0143	1.2717	0.3367	0.0135	0.3502	0.0000	1,270.9330	1,270.9330	0.0742	0.0713	1,294.0308
Unmitigated	0.6939	1.2339	6.4478	0.0137	1.2573	0.0143	1.2717	0.3367	0.0135	0.3502	0.0000	1,270.9330	1,270.9330	0.0742	0.0713	1,294.0308

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	1,208.32	1,221.12	1094.40	3,365,214	3,365,214
Total	1,208.32	1,221.12	1,094.40	3,365,214	3,365,214

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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 Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	38.40	22.60	39.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.491968	0.051162	0.166648	0.188672	0.034593	0.008513	0.012315	0.015417	0.000659	0.000471	0.024128	0.001541	0.003914
Single Family Housing	0.491968	0.051162	0.166648	0.188672	0.034593	0.008513	0.012315	0.015417	0.000659	0.000471	0.024128	0.001541	0.003914

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	180.2160	180.2160	0.0152	1.8400e-003	181.1457
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	180.2160	180.2160	0.0152	1.8400e-003	181.1457
NaturalGas Mitigated	0.0164	0.1402	0.0596	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	162.3149	162.3149	3.1100e-003	2.9800e-003	163.2795
NaturalGas Unmitigated	0.0164	0.1402	0.0596	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	162.3149	162.3149	3.1100e-003	2.9800e-003	163.2795

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 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
Single Family Housing	3.04167e +006	0.0164	0.1402	0.0596	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	162.3149	162.3149	3.1100e-003	2.9800e-003	163.2795
Total		**0.0164**	**0.1402**	**0.0596**	**8.9000e-004**		**0.0113**	**0.0113**		**0.0113**	**0.0113**	**0.0000**	**162.3149**	**162.3149**	**3.1100e-003**	**2.9800e-003**	**163.2795**

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 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
Single Family Housing	3.04167e +006	0.0164	0.1402	0.0596	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	162.3149	162.3149	3.1100e-003	2.9800e-003	163.2795
Total		**0.0164**	**0.1402**	**0.0596**	**8.9000e-004**		**0.0113**	**0.0113**		**0.0113**	**0.0113**	**0.0000**	**162.3149**	**162.3149**	**3.1100e-003**	**2.9800e-003**	**163.2795**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.01619e +006	180.2160	0.0152	1.8400e-003	181.1457
Total		**180.2160**	**0.0152**	**1.8400e-003**	**181.1457**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.01619e +006	180.2160	0.0152	1.8400e-003	181.1457
Total		**180.2160**	**0.0152**	**1.8400e-003**	**181.1457**

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	1.1842	0.0589	0.9719	3.6000e-004		9.1300e-003	9.1300e-003		9.1300e-003	9.1300e-003	0.0000	57.0032	57.0032	2.5600e-003	1.0200e-003	57.3702
Unmitigated	1.1842	0.0589	0.9719	3.6000e-004		9.1300e-003	9.1300e-003		9.1300e-003	9.1300e-003	0.0000	57.0032	57.0032	2.5600e-003	1.0200e-003	57.3702

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	0.2245					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9254					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.6000e-003	0.0479	0.0204	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	55.4506	55.4506	1.0600e-003	1.0200e-003	55.7801
Landscaping	0.0288	0.0110	0.9515	5.0000e-005		5.2600e-003	5.2600e-003		5.2600e-003	5.2600e-003	0.0000	1.5527	1.5527	1.5000e-003	0.0000	1.5901
Total	**1.1842**	**0.0589**	**0.9719**	**3.6000e-004**		**9.1300e-003**	**9.1300e-003**		**9.1300e-003**	**9.1300e-003**	**0.0000**	**57.0032**	**57.0032**	**2.5600e-003**	**1.0200e-003**	**57.3702**

6.2 Area by SubCategory

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	0.2245					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9254					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.6000e-003	0.0479	0.0204	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	55.4506	55.4506	1.0600e-003	1.0200e-003	55.7801
Landscaping	0.0288	0.0110	0.9515	5.0000e-005		5.2600e-003	5.2600e-003		5.2600e-003	5.2600e-003	0.0000	1.5527	1.5527	1.5000e-003	0.0000	1.5901
Total	**1.1842**	**0.0589**	**0.9719**	**3.6000e-004**		**9.1300e-003**	**9.1300e-003**		**9.1300e-003**	**9.1300e-003**	**0.0000**	**57.0032**	**57.0032**	**2.5600e-003**	**1.0200e-003**	**57.3702**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	13.9122	0.2727	6.5300e-003	22.6762
Unmitigated	13.9122	0.2727	6.5300e-003	22.6762

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	8.33972 / 5.25765	13.9122	0.2727	6.5300e-003	22.6762
Total		**13.9122**	**0.2727**	**6.5300e-003**	**22.6762**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	8.33972 / 5.25765	13.9122	0.2727	6.5300e-003	22.6762
Total		**13.9122**	**0.2727**	**6.5300e-003**	**22.6762**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	26.7461	1.5807	0.0000	66.2623
Unmitigated	26.7461	1.5807	0.0000	66.2623

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	131.76	26.7461	1.5807	0.0000	66.2623
Total		**26.7461**	**1.5807**	**0.0000**	**66.2623**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	131.76	26.7461	1.5807	0.0000	66.2623
Total		**26.7461**	**1.5807**	**0.0000**	**66.2623**

9.0 Operational Offroad

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	90.6240	0.0000	0.0000	90.6240

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	128	90.6240	0.0000	0.0000	90.6240
Total		**90.6240**	**0.0000**	**0.0000**	**90.6240**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Lombardi Development - Phase 1

Tulare County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	9.08	Acre	9.08	395,524.80	0
Single Family Housing	128.00	Dwelling Unit	19.34	230,400.00	366

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 51

Climate Zone 7 **Operational Year** 2022

Utility Company Southern California Edison

CO2 Intensity (lb/MWhr) 390.98 **CH4 Intensity (lb/MWhr)** 0.033 **N2O Intensity (lb/MWhr)** 0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage adjusted to account for the project site.

Construction Phase - Construction will take place over one year (October 2021 to October 2022)

Grading - Grading balanced on-site.

Sequestration - At least one tree will be planted at each lot.

Construction Off-road Equipment Mitigation - SJVAPCD Rule 8021.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	35.00	14.00
tblConstructionPhase	NumDays	440.00	200.00
tblConstructionPhase	NumDays	45.00	25.00
tblConstructionPhase	NumDays	35.00	12.00
tblConstructionPhase	NumDays	20.00	10.00

tblLandUse	LotAcreage	41.56	19.34
tblSequestration	NumberOfNewTrees	0.00	128.00

2.0 Emissions Summary

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					
2021	4.2894	46.4601	31.6597	0.0636	19.8049	2.0453	21.8502	10.1417	1.8817	12.0234	0.0000	6,169.4419	6,169.4419	1.9487	0.3271	6,219.7074
2022	321.1067	20.3893	25.0590	0.0600	2.2771	0.8684	3.1455	0.6162	0.8176	1.4338	0.0000	5,984.5720	5,984.5720	0.7179	0.3148	6,095.3548
Maximum	**321.1067**	**46.4601**	**31.6597**	**0.0636**	**19.8049**	**2.0453**	**21.8502**	**10.1417**	**1.8817**	**12.0234**	**0.0000**	**6,169.4419**	**6,169.4419**	**1.9487**	**0.3271**	**6,219.7074**

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					
2021	1.8660	19.3310	37.5038	0.0636	19.8049	0.1912	19.8678	10.1417	0.1862	10.2045	0.0000	6,169.4419	6,169.4419	1.9487	0.3271	6,219.7074
2022	320.9567	15.6858	26.5694	0.0600	2.2771	0.1440	2.4211	0.6162	0.1411	0.7572	0.0000	5,984.5720	5,984.5720	0.7179	0.3148	6,095.3548
Maximum	**320.9567**	**19.3310**	**37.5038**	**0.0636**	**19.8049**	**0.1912**	**19.8678**	**10.1417**	**0.1862**	**10.2045**	**0.0000**	**6,169.4419**	**6,169.4419**	**1.9487**	**0.3271**	**6,219.7074**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.79	47.62	-12.97	0.00	0.00	88.50	10.83	0.00	87.87	18.54	0.00	0.00	0.00	0.00	0.00	0.00

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	6.7568	1.2897	11.0694	8.0100e-003		0.1528	0.1528		0.1528	0.1528	0.0000	1,509.8402	1,509.8402	0.0469	0.0273	1,519.1582
Energy	0.0899	0.7680	0.3268	4.9000e-003		0.0621	0.0621		0.0621	0.0621		980.3921	980.3921	0.0188	0.0180	986.2181
Mobile	4.7205	6.5188	39.5462	0.0820	7.2845	0.0806	7.3651	1.9456	0.0759	2.0215		8,389.5397	8,389.5397	0.4401	0.4291	8,528.4010
Total	**11.5672**	**8.5765**	**50.9424**	**0.0949**	**7.2845**	**0.2955**	**7.5800**	**1.9456**	**0.2908**	**2.2364**	**0.0000**	**10,879.7720**	**10,879.7720**	**0.5059**	**0.4744**	**11,033.7773**

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	6.7568	1.2897	11.0694	8.0100e-003		0.1528	0.1528		0.1528	0.1528	0.0000	1,509.8402	1,509.8402	0.0469	0.0273	1,519.1582
Energy	0.0899	0.7680	0.3268	4.9000e-003		0.0621	0.0621		0.0621	0.0621		980.3921	980.3921	0.0188	0.0180	986.2181
Mobile	4.7205	6.5188	39.5462	0.0820	7.2845	0.0806	7.3651	1.9456	0.0759	2.0215		8,389.5397	8,389.5397	0.4401	0.4291	8,528.4010
Total	**11.5672**	**8.5765**	**50.9424**	**0.0949**	**7.2845**	**0.2955**	**7.5800**	**1.9456**	**0.2908**	**2.2364**	**0.0000**	**10,879.7720**	**10,879.7720**	**0.5059**	**0.4744**	**11,033.7773**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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	10/1/2021	10/14/2021	5	10	
2	Grading	Grading	10/15/2021	11/18/2021	5	25	
3	Building Construction	Building Construction	11/19/2021	8/25/2022	5	200	
4	Paving	Paving	8/26/2022	9/12/2022	5	12	
5	Architectural Coating	Architectural Coating	9/13/2022	9/30/2022	5	14	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 75

Acres of Paving: 9.08

Residential Indoor: 466,560; Residential Outdoor: 155,520; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 23,731 (Architectural Coating – sqft)

OffRoad Equipment

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	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	212.00	79.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	42.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 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					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.656 9	3,685.656 9	1.1920		3,715.457 3
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**19.6570**	**2.0445**	**21.7015**	**10.1025**	**1.8809**	**11.9834**		**3,685.656 9**	**3,685.656 9**	**1.1920**		**3,715.457 3**

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	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
Worker	0.0884	0.0543	0.7031	1.4400e-003	0.1479	8.5000e-004	0.1487	0.0392	7.9000e-004	0.0400		146.1586	146.1586	5.2900e-003	4.6800e-003	147.6846
Total	**0.0884**	**0.0543**	**0.7031**	**1.4400e-003**	**0.1479**	**8.5000e-004**	**0.1487**	**0.0392**	**7.9000e-004**	**0.0400**		**146.1586**	**146.1586**	**5.2900e-003**	**4.6800e-003**	**147.6846**

3.2 Site Preparation - 2021

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					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	0.6967	12.1620	22.9600	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**0.6967**	**12.1620**	**22.9600**	**0.0380**	**19.6570**	**0.0621**	**19.7191**	**10.1025**	**0.0621**	**10.1645**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

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	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
Worker	0.0884	0.0543	0.7031	1.4400e-003	0.1479	8.5000e-004	0.1487	0.0392	7.9000e-004	0.0400		146.1586	146.1586	5.2900e-003	4.6800e-003	147.6846
Total	**0.0884**	**0.0543**	**0.7031**	**1.4400e-003**	**0.1479**	**8.5000e-004**	**0.1487**	**0.0392**	**7.9000e-004**	**0.0400**		**146.1586**	**146.1586**	**5.2900e-003**	**4.6800e-003**	**147.6846**

3.3 Grading - 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					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**9.2036**	**1.9853**	**11.1889**	**3.6538**	**1.8265**	**5.4803**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

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	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
Worker	0.0982	0.0603	0.7812	1.6000e-003	0.1643	9.5000e-004	0.1652	0.0436	8.7000e-004	0.0445		162.3984	162.3984	5.8800e-003	5.2000e-003	164.0940
Total	**0.0982**	**0.0603**	**0.7812**	**1.6000e-003**	**0.1643**	**9.5000e-004**	**0.1652**	**0.0436**	**8.7000e-004**	**0.0445**		**162.3984**	**162.3984**	**5.8800e-003**	**5.2000e-003**	**164.0940**

3.3 Grading - 2021

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					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	1.0110	19.2707	36.7226	0.0620		0.1015	0.1015		0.1015	0.1015	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**1.0110**	**19.2707**	**36.7226**	**0.0620**	**9.2036**	**0.1015**	**9.3051**	**3.6538**	**0.1015**	**3.7553**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

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	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
Worker	0.0982	0.0603	0.7812	1.6000e-003	0.1643	9.5000e-004	0.1652	0.0436	8.7000e-004	0.0445		162.3984	162.3984	5.8800e-003	5.2000e-003	164.0940
Total	**0.0982**	**0.0603**	**0.7812**	**1.6000e-003**	**0.1643**	**9.5000e-004**	**0.1652**	**0.0436**	**8.7000e-004**	**0.0445**		**162.3984**	**162.3984**	**5.8800e-003**	**5.2000e-003**	**164.0940**

3.4 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**

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	0.0000
Vendor	0.2917	5.1293	1.5103	0.0170	0.5356	0.0966	0.6321	0.1542	0.0924	0.2466		1,801.5372	1,801.5372	0.0176	0.2720	1,883.0379
Worker	1.0409	0.6393	8.2807	0.0170	1.7415	0.0101	1.7516	0.4619	9.2600e-003	0.4712		1,721.4234	1,721.4234	0.0623	0.0551	1,739.3965
Total	**1.3325**	**5.7687**	**9.7910**	**0.0340**	**2.2771**	**0.1066**	**2.3837**	**0.6162**	**0.1016**	**0.7178**		**3,522.9606**	**3,522.9606**	**0.0798**	**0.3271**	**3,622.4344**

3.4 Building Construction - 2021

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	0.5335	10.9122	17.8738	0.0269		0.0846	0.0846		0.0846	0.0846	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**0.5335**	**10.9122**	**17.8738**	**0.0269**		**0.0846**	**0.0846**		**0.0846**	**0.0846**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

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	0.0000
Vendor	0.2917	5.1293	1.5103	0.0170	0.5356	0.0966	0.6321	0.1542	0.0924	0.2466		1,801.5372	1,801.5372	0.0176	0.2720	1,883.0379
Worker	1.0409	0.6393	8.2807	0.0170	1.7415	0.0101	1.7516	0.4619	9.2600e-003	0.4712		1,721.4234	1,721.4234	0.0623	0.0551	1,739.3965
Total	**1.3325**	**5.7687**	**9.7910**	**0.0340**	**2.2771**	**0.1066**	**2.3837**	**0.6162**	**0.1016**	**0.7178**		**3,522.9606**	**3,522.9606**	**0.0798**	**0.3271**	**3,622.4344**

3.4 Building Construction - 2022

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.0000
Vendor	0.1788	4.2171	1.2417	0.0166	0.5356	0.0500	0.5856	0.1542	0.0478	0.2021		1,756.1475	1,756.1475	0.0121	0.2647	1,835.3173
Worker	0.9480	0.5566	7.4540	0.0165	1.7415	9.3900e-003	1.7509	0.4619	8.6500e-003	0.4706		1,674.0909	1,674.0909	0.0553	0.0501	1,690.4053
Total	**1.1268**	**4.7736**	**8.6956**	**0.0331**	**2.2771**	**0.0594**	**2.3365**	**0.6162**	**0.0565**	**0.6726**		**3,430.2384**	**3,430.2384**	**0.0674**	**0.3148**	**3,525.7226**

3.4 Building Construction - 2022

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	0.5335	10.9122	17.8738	0.0269		0.0846	0.0846		0.0846	0.0846	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**0.5335**	**10.9122**	**17.8738**	**0.0269**		**0.0846**	**0.0846**		**0.0846**	**0.0846**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.0000
Vendor	0.1788	4.2171	1.2417	0.0166	0.5356	0.0500	0.5856	0.1542	0.0478	0.2021		1,756.1475	1,756.1475	0.0121	0.2647	1,835.3173
Worker	0.9480	0.5566	7.4540	0.0165	1.7415	9.3900e-003	1.7509	0.4619	8.6500e-003	0.4706		1,674.0909	1,674.0909	0.0553	0.0501	1,690.4053
Total	**1.1268**	**4.7736**	**8.6956**	**0.0331**	**2.2771**	**0.0594**	**2.3365**	**0.6162**	**0.0565**	**0.6726**		**3,430.2384**	**3,430.2384**	**0.0674**	**0.3148**	**3,525.7226**

3.5 Paving - 2022

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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	1.9825					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.0853**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

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	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
Worker	0.0671	0.0394	0.5274	1.1600e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333		118.4498	118.4498	3.9100e-003	3.5500e-003	119.6042
Total	**0.0671**	**0.0394**	**0.5274**	**1.1600e-003**	**0.1232**	**6.6000e-004**	**0.1239**	**0.0327**	**6.1000e-004**	**0.0333**		**118.4498**	**118.4498**	**3.9100e-003**	**3.5500e-003**	**119.6042**

3.5 Paving - 2022

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	0.3341	10.0395	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	1.9825					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3166**	**10.0395**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

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	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
Worker	0.0671	0.0394	0.5274	1.1600e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333		118.4498	118.4498	3.9100e-003	3.5500e-003	119.6042
Total	**0.0671**	**0.0394**	**0.5274**	**1.1600e-003**	**0.1232**	**6.6000e-004**	**0.1239**	**0.0327**	**6.1000e-004**	**0.0333**		**118.4498**	**118.4498**	**3.9100e-003**	**3.5500e-003**	**119.6042**

3.6 Architectural Coating - 2022

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	320.7144					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**320.9189**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	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
Worker	0.1878	0.1103	1.4767	3.2600e-003	0.3450	1.8600e-003	0.3469	0.0915	1.7100e-003	0.0932		331.6595	331.6595	0.0110	9.9300e-003	334.8916
Total	**0.1878**	**0.1103**	**1.4767**	**3.2600e-003**	**0.3450**	**1.8600e-003**	**0.3469**	**0.0915**	**1.7100e-003**	**0.0932**		**331.6595**	**331.6595**	**0.0110**	**9.9300e-003**	**334.8916**

3.6 Architectural Coating - 2022

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	320.7144					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**320.7688**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	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
Worker	0.1878	0.1103	1.4767	3.2600e-003	0.3450	1.8600e-003	0.3469	0.0915	1.7100e-003	0.0932		331.6595	331.6595	0.0110	9.9300e-003	334.8916
Total	**0.1878**	**0.1103**	**1.4767**	**3.2600e-003**	**0.3450**	**1.8600e-003**	**0.3469**	**0.0915**	**1.7100e-003**	**0.0932**		**331.6595**	**331.6595**	**0.0110**	**9.9300e-003**	**334.8916**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive 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	4.7205	6.5188	39.5462	0.0820	7.2845	0.0806	7.3651	1.9456	0.0759	2.0215		8,389.539 7	8,389.539 7	0.4401	0.4291	8,528.401 0
Unmitigated	4.7205	6.5188	39.5462	0.0820	7.2845	0.0806	7.3651	1.9456	0.0759	2.0215		8,389.539 7	8,389.539 7	0.4401	0.4291	8,528.401 0

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	1,208.32	1,221.12	1094.40	3,365,214	3,365,214
Total	1,208.32	1,221.12	1,094.40	3,365,214	3,365,214

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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 Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	38.40	22.60	39.00	86	11	3

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.491968	0.051162	0.166648	0.188672	0.034593	0.008513	0.012315	0.015417	0.000659	0.000471	0.024128	0.001541	0.003914
Single Family Housing	0.491968	0.051162	0.166648	0.188672	0.034593	0.008513	0.012315	0.015417	0.000659	0.000471	0.024128	0.001541	0.003914

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	0.0899	0.7680	0.3268	4.9000e-003		0.0621	0.0621		0.0621	0.0621		980.3921	980.3921	0.0188	0.0180	986.2181
NaturalGas Unmitigated	0.0899	0.7680	0.3268	4.9000e-003		0.0621	0.0621		0.0621	0.0621		980.3921	980.3921	0.0188	0.0180	986.2181

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 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
Single Family Housing	8333.33	0.0899	0.7680	0.3268	4.9000e-003		0.0621	0.0621		0.0621	0.0621		980.3921	980.3921	0.0188	0.0180	986.2181
Total		**0.0899**	**0.7680**	**0.3268**	**4.9000e-003**		**0.0621**	**0.0621**		**0.0621**	**0.0621**		**980.3921**	**980.3921**	**0.0188**	**0.0180**	**986.2181**

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 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
Single Family Housing	8.33333	0.0899	0.7680	0.3268	4.9000e-003		0.0621	0.0621		0.0621	0.0621		980.3921	980.3921	0.0188	0.0180	986.2181
Total		**0.0899**	**0.7680**	**0.3268**	**4.9000e-003**		**0.0621**	**0.0621**		**0.0621**	**0.0621**		**980.3921**	**980.3921**	**0.0188**	**0.0180**	**986.2181**

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	6.7568	1.2897	11.0694	8.0100e-003		0.1528	0.1528		0.1528	0.1528	0.0000	1,509.8402	1,509.8402	0.0469	0.0273	1,519.1582
Unmitigated	6.7568	1.2897	11.0694	8.0100e-003		0.1528	0.1528		0.1528	0.1528	0.0000	1,509.8402	1,509.8402	0.0469	0.0273	1,519.1582

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	1.2301					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.0707					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1367	1.1678	0.4969	7.4500e-003		0.0944	0.0944		0.0944	0.0944	0.0000	1,490.8235	1,490.8235	0.0286	0.0273	1,499.6828
Landscaping	0.3194	0.1219	10.5725	5.6000e-004		0.0584	0.0584		0.0584	0.0584		19.0167	19.0167	0.0184		19.4754
Total	**6.7568**	**1.2897**	**11.0694**	**8.0100e-003**		**0.1528**	**0.1528**		**0.1528**	**0.1528**	**0.0000**	**1,509.8402**	**1,509.8402**	**0.0469**	**0.0273**	**1,519.1582**

6.2 Area by SubCategory

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	1.2301					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.0707					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1367	1.1678	0.4969	7.4500e-003		0.0944	0.0944		0.0944	0.0944	0.0000	1,490.8235	1,490.8235	0.0286	0.0273	1,499.6828
Landscaping	0.3194	0.1219	10.5725	5.6000e-004		0.0584	0.0584		0.0584	0.0584		19.0167	19.0167	0.0184		19.4754
Total	**6.7568**	**1.2897**	**11.0694**	**8.0100e-003**		**0.1528**	**0.1528**		**0.1528**	**0.1528**	**0.0000**	**1,509.8402**	**1,509.8402**	**0.0469**	**0.0273**	**1,519.1582**

7.0 Water Detail

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 Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Lombardi Development - Phase 1

Tulare County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	9.08	Acre	9.08	395,524.80	0
Single Family Housing	128.00	Dwelling Unit	19.34	230,400.00	366

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	51
Climate Zone	7			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage adjusted to account for the project site.

Construction Phase - Construction will take place over one year (October 2021 to October 2022)

Grading - Grading balanced on-site.

Sequestration - At least one tree will be planted at each lot.

Construction Off-road Equipment Mitigation - SJVAPCD Rule 8021.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	35.00	14.00
tblConstructionPhase	NumDays	440.00	200.00
tblConstructionPhase	NumDays	45.00	25.00
tblConstructionPhase	NumDays	35.00	12.00
tblConstructionPhase	NumDays	20.00	10.00

tblLandUse	LotAcreage	41.56	19.34
tblSequestration	NumberOfNewTrees	0.00	128.00

2.0 Emissions Summary

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					
2021	4.2767	46.4706	31.5268	0.0634	19.8049	2.0453	21.8502	10.1417	1.8817	12.0234	0.0000	6,150.7783	6,150.7783	1.9492	0.3337	6,201.2315
2022	321.0829	20.7762	23.8680	0.0581	2.2771	0.8686	3.1457	0.6162	0.8178	1.4339	0.0000	5,794.2721	5,794.2721	0.7183	0.3208	5,906.9927
Maximum	**321.0829**	**46.4706**	**31.5268**	**0.0634**	**19.8049**	**2.0453**	**21.8502**	**10.1417**	**1.8817**	**12.0234**	**0.0000**	**6,150.7783**	**6,150.7783**	**1.9492**	**0.3337**	**6,201.2315**

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					
2021	1.7280	19.3415	37.3709	0.0634	19.8049	0.1914	19.8678	10.1417	0.1864	10.2045	0.0000	6,150.7782	6,150.7782	1.9492	0.3337	6,201.2315
2022	320.9328	16.0728	25.3784	0.0581	2.2771	0.1441	2.4213	0.6162	0.1412	0.7574	0.0000	5,794.2721	5,794.2721	0.7183	0.3208	5,906.9927
Maximum	**320.9328**	**19.3415**	**37.3709**	**0.0634**	**19.8049**	**0.1914**	**19.8678**	**10.1417**	**0.1864**	**10.2045**	**0.0000**	**6,150.7782**	**6,150.7782**	**1.9492**	**0.3337**	**6,201.2315**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.83	47.34	-13.28	0.00	0.00	88.48	10.83	0.00	87.86	18.54	0.00	0.00	0.00	0.00	0.00	0.00

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	6.7568	1.2897	11.0694	8.0100e-003		0.1528	0.1528		0.1528	0.1528	0.0000	1,509.8402	1,509.8402	0.0469	0.0273	1,519.1582
Energy	0.0899	0.7680	0.3268	4.9000e-003		0.0621	0.0621		0.0621	0.0621		980.3921	980.3921	0.0188	0.0180	986.2181
Mobile	3.6919	7.2988	37.1618	0.0750	7.2845	0.0807	7.3652	1.9456	0.0760	2.0215		7,679.7748	7,679.7748	0.4907	0.4582	7,828.5794
Total	**10.5386**	**9.3565**	**48.5580**	**0.0879**	**7.2845**	**0.2956**	**7.5801**	**1.9456**	**0.2909**	**2.2364**	**0.0000**	**10,170.0071**	**10,170.0071**	**0.5564**	**0.5035**	**10,333.9557**

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	6.7568	1.2897	11.0694	8.0100e-003		0.1528	0.1528		0.1528	0.1528	0.0000	1,509.8402	1,509.8402	0.0469	0.0273	1,519.1582
Energy	0.0899	0.7680	0.3268	4.9000e-003		0.0621	0.0621		0.0621	0.0621		980.3921	980.3921	0.0188	0.0180	986.2181
Mobile	3.6919	7.2988	37.1618	0.0750	7.2845	0.0807	7.3652	1.9456	0.0760	2.0215		7,679.7748	7,679.7748	0.4907	0.4582	7,828.5794
Total	**10.5386**	**9.3565**	**48.5580**	**0.0879**	**7.2845**	**0.2956**	**7.5801**	**1.9456**	**0.2909**	**2.2364**	**0.0000**	**10,170.0071**	**10,170.0071**	**0.5564**	**0.5035**	**10,333.9557**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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	10/1/2021	10/14/2021	5	10	
2	Grading	Grading	10/15/2021	11/18/2021	5	25	
3	Building Construction	Building Construction	11/19/2021	8/25/2022	5	200	
4	Paving	Paving	8/26/2022	9/12/2022	5	12	
5	Architectural Coating	Architectural Coating	9/13/2022	9/30/2022	5	14	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 75

Acres of Paving: 9.08

Residential Indoor: 466,560; Residential Outdoor: 155,520; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 23,731 (Architectural Coating – sqft)

OffRoad Equipment

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	212.00	79.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	42.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 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					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**19.6570**	**2.0445**	**21.7015**	**10.1025**	**1.8809**	**11.9834**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

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	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
Worker	0.0770	0.0637	0.5835	1.2800e-003	0.1479	8.5000e-004	0.1487	0.0392	7.9000e-004	0.0400		129.3613	129.3613	5.7600e-003	5.2000e-003	131.0563
Total	**0.0770**	**0.0637**	**0.5835**	**1.2800e-003**	**0.1479**	**8.5000e-004**	**0.1487**	**0.0392**	**7.9000e-004**	**0.0400**		**129.3613**	**129.3613**	**5.7600e-003**	**5.2000e-003**	**131.0563**

3.2 Site Preparation - 2021

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					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	0.6967	12.1620	22.9600	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**0.6967**	**12.1620**	**22.9600**	**0.0380**	**19.6570**	**0.0621**	**19.7191**	**10.1025**	**0.0621**	**10.1645**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

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	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
Worker	0.0770	0.0637	0.5835	1.2800e-003	0.1479	8.5000e-004	0.1487	0.0392	7.9000e-004	0.0400		129.3613	129.3613	5.7600e-003	5.2000e-003	131.0563
Total	**0.0770**	**0.0637**	**0.5835**	**1.2800e-003**	**0.1479**	**8.5000e-004**	**0.1487**	**0.0392**	**7.9000e-004**	**0.0400**		**129.3613**	**129.3613**	**5.7600e-003**	**5.2000e-003**	**131.0563**

3.3 Grading - 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					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**9.2036**	**1.9853**	**11.1889**	**3.6538**	**1.8265**	**5.4803**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

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	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
Worker	0.0856	0.0708	0.6483	1.4200e-003	0.1643	9.5000e-004	0.1652	0.0436	8.7000e-004	0.0445		143.7348	143.7348	6.4000e-003	5.7800e-003	145.6181
Total	**0.0856**	**0.0708**	**0.6483**	**1.4200e-003**	**0.1643**	**9.5000e-004**	**0.1652**	**0.0436**	**8.7000e-004**	**0.0445**		**143.7348**	**143.7348**	**6.4000e-003**	**5.7800e-003**	**145.6181**

3.3 Grading - 2021

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					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	1.0110	19.2707	36.7226	0.0620		0.1015	0.1015		0.1015	0.1015	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**1.0110**	**19.2707**	**36.7226**	**0.0620**	**9.2036**	**0.1015**	**9.3051**	**3.6538**	**0.1015**	**3.7553**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

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	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
Worker	0.0856	0.0708	0.6483	1.4200e-003	0.1643	9.5000e-004	0.1652	0.0436	8.7000e-004	0.0445		143.7348	143.7348	6.4000e-003	5.7800e-003	145.6181
Total	**0.0856**	**0.0708**	**0.6483**	**1.4200e-003**	**0.1643**	**9.5000e-004**	**0.1652**	**0.0436**	**8.7000e-004**	**0.0445**		**143.7348**	**143.7348**	**6.4000e-003**	**5.7800e-003**	**145.6181**

3.4 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**

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	0.0000
Vendor	0.2876	5.4803	1.5560	0.0170	0.5356	0.0968	0.6323	0.1542	0.0926	0.2468		1,802.4015	1,802.4015	0.0173	0.2724	1,884.0152
Worker	0.9069	0.7503	6.8719	0.0150	1.7415	0.0101	1.7516	0.4619	9.2600e-003	0.4712		1,523.5890	1,523.5890	0.0678	0.0613	1,543.5516
Total	**1.1945**	**6.2305**	**8.4280**	**0.0321**	**2.2771**	**0.1068**	**2.3839**	**0.6162**	**0.1018**	**0.7180**		**3,325.9905**	**3,325.9905**	**0.0852**	**0.3337**	**3,427.5668**

3.4 Building Construction - 2021

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	0.5335	10.9122	17.8738	0.0269		0.0846	0.0846		0.0846	0.0846	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**0.5335**	**10.9122**	**17.8738**	**0.0269**		**0.0846**	**0.0846**		**0.0846**	**0.0846**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

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	0.0000
Vendor	0.2876	5.4803	1.5560	0.0170	0.5356	0.0968	0.6323	0.1542	0.0926	0.2468		1,802.4015	1,802.4015	0.0173	0.2724	1,884.0152
Worker	0.9069	0.7503	6.8719	0.0150	1.7415	0.0101	1.7516	0.4619	9.2600e-003	0.4712		1,523.5890	1,523.5890	0.0678	0.0613	1,543.5516
Total	**1.1945**	**6.2305**	**8.4280**	**0.0321**	**2.2771**	**0.1068**	**2.3839**	**0.6162**	**0.1018**	**0.7180**		**3,325.9905**	**3,325.9905**	**0.0852**	**0.3337**	**3,427.5668**

3.4 Building Construction - 2022

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.0000
Vendor	0.1743	4.5078	1.2853	0.0166	0.5356	0.0502	0.5857	0.1542	0.0480	0.2022		1,757.6307	1,757.6307	0.0119	0.2651	1,836.9328
Worker	0.8277	0.6528	6.2193	0.0146	1.7415	9.3900e-003	1.7509	0.4619	8.6500e-003	0.4706		1,482.3078	1,482.3078	0.0606	0.0557	1,500.4277
Total	**1.0019**	**5.1606**	**7.5046**	**0.0312**	**2.2771**	**0.0595**	**2.3367**	**0.6162**	**0.0566**	**0.6728**		**3,239.9385**	**3,239.9385**	**0.0725**	**0.3208**	**3,337.3605**

3.4 Building Construction - 2022

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	0.5335	10.9122	17.8738	0.0269		0.0846	0.0846		0.0846	0.0846	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**0.5335**	**10.9122**	**17.8738**	**0.0269**		**0.0846**	**0.0846**		**0.0846**	**0.0846**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.0000
Vendor	0.1743	4.5078	1.2853	0.0166	0.5356	0.0502	0.5857	0.1542	0.0480	0.2022		1,757.6307	1,757.6307	0.0119	0.2651	1,836.9328
Worker	0.8277	0.6528	6.2193	0.0146	1.7415	9.3900e-003	1.7509	0.4619	8.6500e-003	0.4706		1,482.3078	1,482.3078	0.0606	0.0557	1,500.4277
Total	**1.0019**	**5.1606**	**7.5046**	**0.0312**	**2.2771**	**0.0595**	**2.3367**	**0.6162**	**0.0566**	**0.6728**		**3,239.9385**	**3,239.9385**	**0.0725**	**0.3208**	**3,337.3605**

3.5 Paving - 2022

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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	1.9825					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.0853**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

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	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
Worker	0.0586	0.0462	0.4400	1.0300e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333		104.8803	104.8803	4.2900e-003	3.9400e-003	106.1623
Total	**0.0586**	**0.0462**	**0.4400**	**1.0300e-003**	**0.1232**	**6.6000e-004**	**0.1239**	**0.0327**	**6.1000e-004**	**0.0333**		**104.8803**	**104.8803**	**4.2900e-003**	**3.9400e-003**	**106.1623**

3.5 Paving - 2022

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	0.3341	10.0395	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	1.9825					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3166**	**10.0395**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,207.660 3**	**2,207.660 3**	**0.7140**		**2,225.510 4**

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	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
Worker	0.0586	0.0462	0.4400	1.0300e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333		104.8803	104.8803	4.2900e-003	3.9400e-003	106.1623
Total	**0.0586**	**0.0462**	**0.4400**	**1.0300e-003**	**0.1232**	**6.6000e-004**	**0.1239**	**0.0327**	**6.1000e-004**	**0.0333**		**104.8803**	**104.8803**	**4.2900e-003**	**3.9400e-003**	**106.1623**

3.6 Architectural Coating - 2022

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	320.7144					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**320.9189**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	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
Worker	0.1640	0.1293	1.2321	2.8900e-003	0.3450	1.8600e-003	0.3469	0.0915	1.7100e-003	0.0932		293.6648	293.6648	0.0120	0.0110	297.2546
Total	**0.1640**	**0.1293**	**1.2321**	**2.8900e-003**	**0.3450**	**1.8600e-003**	**0.3469**	**0.0915**	**1.7100e-003**	**0.0932**		**293.6648**	**293.6648**	**0.0120**	**0.0110**	**297.2546**

3.6 Architectural Coating - 2022

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	320.7144					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**320.7688**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	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
Worker	0.1640	0.1293	1.2321	2.8900e-003	0.3450	1.8600e-003	0.3469	0.0915	1.7100e-003	0.0932		293.6648	293.6648	0.0120	0.0110	297.2546
Total	**0.1640**	**0.1293**	**1.2321**	**2.8900e-003**	**0.3450**	**1.8600e-003**	**0.3469**	**0.0915**	**1.7100e-003**	**0.0932**		**293.6648**	**293.6648**	**0.0120**	**0.0110**	**297.2546**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive 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	3.6919	7.2988	37.1618	0.0750	7.2845	0.0807	7.3652	1.9456	0.0760	2.0215		7,679.7748	7,679.7748	0.4907	0.4582	7,828.5794
Unmitigated	3.6919	7.2988	37.1618	0.0750	7.2845	0.0807	7.3652	1.9456	0.0760	2.0215		7,679.7748	7,679.7748	0.4907	0.4582	7,828.5794

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	1,208.32	1,221.12	1094.40	3,365,214	3,365,214
Total	1,208.32	1,221.12	1,094.40	3,365,214	3,365,214

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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 Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	38.40	22.60	39.00	86	11	3

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.491968	0.051162	0.166648	0.188672	0.034593	0.008513	0.012315	0.015417	0.000659	0.000471	0.024128	0.001541	0.003914
Single Family Housing	0.491968	0.051162	0.166648	0.188672	0.034593	0.008513	0.012315	0.015417	0.000659	0.000471	0.024128	0.001541	0.003914

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	0.0899	0.7680	0.3268	4.9000e-003		0.0621	0.0621		0.0621	0.0621		980.3921	980.3921	0.0188	0.0180	986.2181
NaturalGas Unmitigated	0.0899	0.7680	0.3268	4.9000e-003		0.0621	0.0621		0.0621	0.0621		980.3921	980.3921	0.0188	0.0180	986.2181

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 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
Single Family Housing	8333.33	0.0899	0.7680	0.3268	4.9000e-003		0.0621	0.0621		0.0621	0.0621		980.3921	980.3921	0.0188	0.0180	986.2181
Total		**0.0899**	**0.7680**	**0.3268**	**4.9000e-003**		**0.0621**	**0.0621**		**0.0621**	**0.0621**		**980.3921**	**980.3921**	**0.0188**	**0.0180**	**986.2181**

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 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
Single Family Housing	8.33333	0.0899	0.7680	0.3268	4.9000e-003		0.0621	0.0621		0.0621	0.0621		980.3921	980.3921	0.0188	0.0180	986.2181
Total		**0.0899**	**0.7680**	**0.3268**	**4.9000e-003**		**0.0621**	**0.0621**		**0.0621**	**0.0621**		**980.3921**	**980.3921**	**0.0188**	**0.0180**	**986.2181**

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	6.7568	1.2897	11.0694	8.0100e-003		0.1528	0.1528		0.1528	0.1528	0.0000	1,509.8402	1,509.8402	0.0469	0.0273	1,519.1582
Unmitigated	6.7568	1.2897	11.0694	8.0100e-003		0.1528	0.1528		0.1528	0.1528	0.0000	1,509.8402	1,509.8402	0.0469	0.0273	1,519.1582

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	1.2301					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.0707					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1367	1.1678	0.4969	7.4500e-003		0.0944	0.0944		0.0944	0.0944	0.0000	1,490.8235	1,490.8235	0.0286	0.0273	1,499.6828
Landscaping	0.3194	0.1219	10.5725	5.6000e-004		0.0584	0.0584		0.0584	0.0584		19.0167	19.0167	0.0184		19.4754
Total	**6.7568**	**1.2897**	**11.0694**	**8.0100e-003**		**0.1528**	**0.1528**		**0.1528**	**0.1528**	**0.0000**	**1,509.8402**	**1,509.8402**	**0.0469**	**0.0273**	**1,519.1582**

6.2 Area by SubCategory

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	1.2301					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.0707					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1367	1.1678	0.4969	7.4500e-003		0.0944	0.0944		0.0944	0.0944	0.0000	1,490.8235	1,490.8235	0.0286	0.0273	1,499.6828
Landscaping	0.3194	0.1219	10.5725	5.6000e-004		0.0584	0.0584		0.0584	0.0584		19.0167	19.0167	0.0184		19.4754
Total	**6.7568**	**1.2897**	**11.0694**	**8.0100e-003**		**0.1528**	**0.1528**		**0.1528**	**0.1528**	**0.0000**	**1,509.8402**	**1,509.8402**	**0.0469**	**0.0273**	**1,519.1582**

7.0 Water Detail

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

Lombardi Development Phase 2

Tulare County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	8.43	Acre	8.43	367,210.80	0
City Park	3.51	Acre	3.51	152,895.60	0
Single Family Housing	105.00	Dwelling Unit	18.88	189,000.00	300

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 51

Climate Zone 7 **Operational Year** 2024

Utility Company Southern California Edison

CO2 Intensity (lb/MWhr) 390.98 **CH4 Intensity (lb/MWhr)** 0.033 **N2O Intensity (lb/MWhr)** 0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage adjusted for the Project site.

Construction Phase - Construction will take place over one year (January 2023 to January 2024)

Grading - Grading balanced on-site

Sequestration - At least one tree will be planted at each lot.

Construction Off-road Equipment Mitigation - SJVAPCD Rule 8021

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	35.00	13.00
tblConstructionPhase	NumDays	500.00	200.00
tblConstructionPhase	NumDays	45.00	25.00
tblConstructionPhase	NumDays	35.00	12.00

tblConstructionPhase	NumDays	20.00	10.00
tblLandUse	LotAcreage	34.09	18.88
tblSequestration	NumberOfNewTrees	0.00	105.00

2.0 Emissions Summary

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					
2023	2.1840	2.5743	3.0129	7.5800e-003	0.4868	0.1015	0.5883	0.1704	0.0950	0.2653	0.0000	683.7508	683.7508	0.0932	0.0335	696.0526
Maximum	**2.1840**	**2.5743**	**3.0129**	**7.5800e-003**	**0.4868**	**0.1015**	**0.5883**	**0.1704**	**0.0950**	**0.2653**	**0.0000**	**683.7508**	**683.7508**	**0.0932**	**0.0335**	**696.0526**

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					
2023	2.0363	1.9571	3.3242	7.5800e-003	0.4868	0.0141	0.5009	0.1704	0.0139	0.1843	0.0000	683.7504	683.7504	0.0932	0.0335	696.0522
Maximum	**2.0363**	**1.9571**	**3.3242**	**7.5800e-003**	**0.4868**	**0.0141**	**0.5009**	**0.1704**	**0.0139**	**0.1843**	**0.0000**	**683.7504**	**683.7504**	**0.0932**	**0.0335**	**696.0522**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**6.76**	**23.97**	**-10.33**	**0.00**	**0.00**	**86.07**	**14.85**	**0.00**	**85.33**	**30.54**	**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	**1-1-2023**	**3-31-2023**	0.9466	0.5790
2	**4-1-2023**	**6-30-2023**	0.7095	0.5629
3	**7-1-2023**	**9-30-2023**	0.7173	0.5691
		Highest	0.9466	0.5790

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	0.9764	0.0483	0.7961	2.9000e-004		7.5000e-003	7.5000e-003		7.5000e-003	7.5000e-003	0.0000	46.7605	46.7605	2.0900e-003	8.3000e-004	47.0614
Energy	0.0135	0.1150	0.0489	7.3000e-004		9.3000e-003	9.3000e-003		9.3000e-003	9.3000e-003	0.0000	280.9824	280.9824	0.0150	3.9500e-003	282.5363
Mobile	0.5015	0.8269	4.6448	0.0105	1.0339	9.1500e-003	1.0431	0.2767	8.5900e-003	0.2853	0.0000	970.1987	970.1987	0.0535	0.0526	987.2129
Waste						0.0000	0.0000		0.0000	0.0000	21.9839	0.0000	21.9839	1.2992	0.0000	54.4642
Water						0.0000	0.0000		0.0000	0.0000	2.1704	11.8378	14.0082	0.2239	5.3800e-003	21.2109
Total	**1.4914**	**0.9901**	**5.4898**	**0.0115**	**1.0339**	**0.0260**	**1.0599**	**0.2767**	**0.0254**	**0.3021**	**24.1543**	**1,309.7794**	**1,333.9337**	**1.5938**	**0.0628**	**1,392.4857**

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	0.9764	0.0483	0.7961	2.9000e-004		7.5000e-003	7.5000e-003		7.5000e-003	7.5000e-003	0.0000	46.7605	46.7605	2.0900e-003	8.3000e-004	47.0614
Energy	0.0135	0.1150	0.0489	7.3000e-004		9.3000e-003	9.3000e-003		9.3000e-003	9.3000e-003	0.0000	280.9824	280.9824	0.0150	3.9500e-003	282.5363
Mobile	0.5015	0.8269	4.6448	0.0105	1.0339	9.1500e-003	1.0431	0.2767	8.5900e-003	0.2853	0.0000	970.1987	970.1987	0.0535	0.0526	987.2129
Waste						0.0000	0.0000		0.0000	0.0000	21.9839	0.0000	21.9839	1.2992	0.0000	54.4642
Water						0.0000	0.0000		0.0000	0.0000	2.1704	11.8378	14.0082	0.2239	5.3800e-003	21.2109
Total	**1.4914**	**0.9901**	**5.4898**	**0.0115**	**1.0339**	**0.0260**	**1.0599**	**0.2767**	**0.0254**	**0.3021**	**24.1543**	**1,309.7794**	**1,333.9337**	**1.5938**	**0.0628**	**1,392.4857**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	74.3400
Total	**74.3400**

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	1/1/2023	1/13/2023	5	10	
2	Grading	Grading	1/14/2023	2/17/2023	5	25	
3	Building Construction	Building Construction	2/18/2023	11/24/2023	5	200	
4	Paving	Paving	11/25/2023	12/12/2023	5	12	
5	Architectural Coating	Architectural Coating	12/13/2023	12/31/2023	5	13	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 75

Acres of Paving: 8.43

Residential Indoor: 382,725; Residential Outdoor: 127,575; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 22,033 (Architectural Coating – sqft)

OffRoad Equipment

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	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	256.00	96.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	51.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2023

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					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606
Total	**0.0133**	**0.1376**	**0.0912**	**1.9000e-004**	**0.0983**	**6.3300e-003**	**0.1046**	**0.0505**	**5.8200e-003**	**0.0563**	**0.0000**	**16.7254**	**16.7254**	**5.4100e-003**	**0.0000**	**16.8606**

3.2 Site Preparation - 2023

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	3.1000e-004	2.2000e-004	2.4500e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5694	0.5694	2.0000e-005	2.0000e-005	0.5753
Total	**3.1000e-004**	**2.2000e-004**	**2.4500e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5694**	**0.5694**	**2.0000e-005**	**2.0000e-005**	**0.5753**

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					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4800e-003	0.0608	0.1148	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606
Total	**3.4800e-003**	**0.0608**	**0.1148**	**1.9000e-004**	**0.0983**	**3.1000e-004**	**0.0986**	**0.0505**	**3.1000e-004**	**0.0508**	**0.0000**	**16.7253**	**16.7253**	**5.4100e-003**	**0.0000**	**16.8606**

3.2 Site Preparation - 2023

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	3.1000e-004	2.2000e-004	2.4500e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5694	0.5694	2.0000e-005	2.0000e-005	0.5753
Total	**3.1000e-004**	**2.2000e-004**	**2.4500e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5694**	**0.5694**	**2.0000e-005**	**2.0000e-005**	**0.5753**

3.3 Grading - 2023

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					0.1150	0.0000	0.1150	0.0457	0.0000	0.0457	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0415	0.4314	0.3506	7.8000e-004		0.0178	0.0178		0.0164	0.0164	0.0000	68.1690	68.1690	0.0221	0.0000	68.7202
Total	**0.0415**	**0.4314**	**0.3506**	**7.8000e-004**	**0.1150**	**0.0178**	**0.1329**	**0.0457**	**0.0164**	**0.0621**	**0.0000**	**68.1690**	**68.1690**	**0.0221**	**0.0000**	**68.7202**

3.3 Grading - 2023

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	8.7000e-004	6.1000e-004	6.8000e-003	2.0000e-005	1.9900e-003	1.0000e-005	2.0000e-003	5.3000e-004	1.0000e-005	5.4000e-004	0.0000	1.5816	1.5816	5.0000e-005	5.0000e-005	1.5982
Total	**8.7000e-004**	**6.1000e-004**	**6.8000e-003**	**2.0000e-005**	**1.9900e-003**	**1.0000e-005**	**2.0000e-003**	**5.3000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.5816**	**1.5816**	**5.0000e-005**	**5.0000e-005**	**1.5982**

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					0.1150	0.0000	0.1150	0.0457	0.0000	0.0457	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0126	0.2409	0.4590	7.8000e-004		1.2700e-003	1.2700e-003		1.2700e-003	1.2700e-003	0.0000	68.1689	68.1689	0.0221	0.0000	68.7201
Total	**0.0126**	**0.2409**	**0.4590**	**7.8000e-004**	**0.1150**	**1.2700e-003**	**0.1163**	**0.0457**	**1.2700e-003**	**0.0469**	**0.0000**	**68.1689**	**68.1689**	**0.0221**	**0.0000**	**68.7201**

3.3 Grading - 2023

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	8.7000e-004	6.1000e-004	6.8000e-003	2.0000e-005	1.9900e-003	1.0000e-005	2.0000e-003	5.3000e-004	1.0000e-005	5.4000e-004	0.0000	1.5816	1.5816	5.0000e-005	5.0000e-005	1.5982
Total	**8.7000e-004**	**6.1000e-004**	**6.8000e-003**	**2.0000e-005**	**1.9900e-003**	**1.0000e-005**	**2.0000e-003**	**5.3000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.5816**	**1.5816**	**5.0000e-005**	**5.0000e-005**	**1.5982**

3.4 Building Construction - 2023

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	0.1573	1.4385	1.6244	2.6900e-003		0.0700	0.0700		0.0658	0.0658	0.0000	231.8048	231.8048	0.0551	0.0000	233.1833
Total	**0.1573**	**1.4385**	**1.6244**	**2.6900e-003**		**0.0700**	**0.0700**		**0.0658**	**0.0658**	**0.0000**	**231.8048**	**231.8048**	**0.0551**	**0.0000**	**233.1833**

3.4 Building Construction - 2023

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	0.0108	0.4324	0.1305	1.9500e-003	0.0635	2.7600e-003	0.0662	0.0183	2.6400e-003	0.0210	0.0000	186.6075	186.6075	8.6000e-004	0.0281	194.9926
Worker	0.0894	0.0628	0.6961	1.7700e-003	0.2039	1.0600e-003	0.2050	0.0542	9.8000e-004	0.0552	0.0000	161.9511	161.9511	5.5600e-003	5.2400e-003	163.6525
Total	**0.1002**	**0.4952**	**0.8266**	**3.7200e-003**	**0.2674**	**3.8200e-003**	**0.2712**	**0.0726**	**3.6200e-003**	**0.0762**	**0.0000**	**348.5585**	**348.5585**	**6.4200e-003**	**0.0333**	**358.6451**

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	0.0534	1.0912	1.7874	2.6900e-003		8.4600e-003	8.4600e-003		8.4600e-003	8.4600e-003	0.0000	231.8045	231.8045	0.0551	0.0000	233.1830
Total	**0.0534**	**1.0912**	**1.7874**	**2.6900e-003**		**8.4600e-003**	**8.4600e-003**		**8.4600e-003**	**8.4600e-003**	**0.0000**	**231.8045**	**231.8045**	**0.0551**	**0.0000**	**233.1830**

3.4 Building Construction - 2023

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	0.0108	0.4324	0.1305	1.9500e-003	0.0635	2.7600e-003	0.0662	0.0183	2.6400e-003	0.0210	0.0000	186.6075	186.6075	8.6000e-004	0.0281	194.9926
Worker	0.0894	0.0628	0.6961	1.7700e-003	0.2039	1.0600e-003	0.2050	0.0542	9.8000e-004	0.0552	0.0000	161.9511	161.9511	5.5600e-003	5.2400e-003	163.6525
Total	**0.1002**	**0.4952**	**0.8266**	**3.7200e-003**	**0.2674**	**3.8200e-003**	**0.2712**	**0.0726**	**3.6200e-003**	**0.0762**	**0.0000**	**348.5585**	**348.5585**	**6.4200e-003**	**0.0333**	**358.6451**

3.5 Paving - 2023

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	6.2000e-003	0.0612	0.0875	1.4000e-004		3.0600e-003	3.0600e-003		2.8200e-003	2.8200e-003	0.0000	12.0161	12.0161	3.8900e-003	0.0000	12.1133
Paving	0.0110					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0172**	**0.0612**	**0.0875**	**1.4000e-004**		**3.0600e-003**	**3.0600e-003**		**2.8200e-003**	**2.8200e-003**	**0.0000**	**12.0161**	**12.0161**	**3.8900e-003**	**0.0000**	**12.1133**

3.5 Paving - 2023

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	3.1000e-004	2.2000e-004	2.4500e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5694	0.5694	2.0000e-005	2.0000e-005	0.5753
Total	**3.1000e-004**	**2.2000e-004**	**2.4500e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5694**	**0.5694**	**2.0000e-005**	**2.0000e-005**	**0.5753**

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	2.0000e-003	0.0602	0.1038	1.4000e-004		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	12.0161	12.0161	3.8900e-003	0.0000	12.1133
Paving	0.0110					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0130**	**0.0602**	**0.1038**	**1.4000e-004**		**2.2000e-004**	**2.2000e-004**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**12.0161**	**12.0161**	**3.8900e-003**	**0.0000**	**12.1133**

3.5 Paving - 2023

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	3.1000e-004	2.2000e-004	2.4500e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5694	0.5694	2.0000e-005	2.0000e-005	0.5753
Total	**3.1000e-004**	**2.2000e-004**	**2.4500e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5694**	**0.5694**	**2.0000e-005**	**2.0000e-005**	**0.5753**

3.6 Architectural Coating - 2023

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	1.8505					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2500e-003	8.4700e-003	0.0118	2.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	1.6596	1.6596	1.0000e-004	0.0000	1.6621
Total	**1.8518**	**8.4700e-003**	**0.0118**	**2.0000e-005**		**4.6000e-004**	**4.6000e-004**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**1.6596**	**1.6596**	**1.0000e-004**	**0.0000**	**1.6621**

3.6 Architectural Coating - 2023

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	1.1600e-003	8.1000e-004	9.0100e-003	2.0000e-005	2.6400e-003	1.0000e-005	2.6500e-003	7.0000e-004	1.0000e-005	7.1000e-004	0.0000	2.0971	2.0971	7.0000e-005	7.0000e-005	2.1192
Total	**1.1600e-003**	**8.1000e-004**	**9.0100e-003**	**2.0000e-005**	**2.6400e-003**	**1.0000e-005**	**2.6500e-003**	**7.0000e-004**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**2.0971**	**2.0971**	**7.0000e-005**	**7.0000e-005**	**2.1192**

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	1.8505					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5000e-004	6.8900e-003	0.0119	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.6596	1.6596	1.0000e-004	0.0000	1.6621
Total	**1.8509**	**6.8900e-003**	**0.0119**	**2.0000e-005**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**1.6596**	**1.6596**	**1.0000e-004**	**0.0000**	**1.6621**

3.6 Architectural Coating - 2023

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	1.1600e-003	8.1000e-004	9.0100e-003	2.0000e-005	2.6400e-003	1.0000e-005	2.6500e-003	7.0000e-004	1.0000e-005	7.1000e-004	0.0000	2.0971	2.0971	7.0000e-005	7.0000e-005	2.1192
Total	**1.1600e-003**	**8.1000e-004**	**9.0100e-003**	**2.0000e-005**	**2.6400e-003**	**1.0000e-005**	**2.6500e-003**	**7.0000e-004**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**2.0971**	**2.0971**	**7.0000e-005**	**7.0000e-005**	**2.1192**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive 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	0.5015	0.8269	4.6448	0.0105	1.0339	9.1500e-003	1.0431	0.2767	8.5900e-003	0.2853	0.0000	970.1987	970.1987	0.0535	0.0526	987.2129
Unmitigated	0.5015	0.8269	4.6448	0.0105	1.0339	9.1500e-003	1.0431	0.2767	8.5900e-003	0.2853	0.0000	970.1987	970.1987	0.0535	0.0526	987.2129

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	2.74	6.88	7.69	8,617	8,617
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	991.20	1,001.70	897.75	2,760,527	2,760,527
Total	993.94	1,008.58	905.44	2,769,145	2,769,145

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	38.40	22.60	39.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.509869	0.051139	0.167106	0.174849	0.031609	0.007996	0.012006	0.015707	0.000636	0.000471	0.023554	0.001465	0.003592
Other Asphalt Surfaces	0.509869	0.051139	0.167106	0.174849	0.031609	0.007996	0.012006	0.015707	0.000636	0.000471	0.023554	0.001465	0.003592

Single Family Housing	0.509869	0.051139	0.167106	0.174849	0.031609	0.007996	0.012006	0.015707	0.000636	0.000471	0.023554	0.001465	0.003592

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	147.8334	147.8334	0.0125	1.5100e-003	148.5961
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	147.8334	147.8334	0.0125	1.5100e-003	148.5961
NaturalGas Mitigated	0.0135	0.1150	0.0489	7.3000e-004		9.3000e-003	9.3000e-003		9.3000e-003	9.3000e-003	0.0000	133.1490	133.1490	2.5500e-003	2.4400e-003	133.9402
NaturalGas Unmitigated	0.0135	0.1150	0.0489	7.3000e-004		9.3000e-003	9.3000e-003		9.3000e-003	9.3000e-003	0.0000	133.1490	133.1490	2.5500e-003	2.4400e-003	133.9402

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					
City Park	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
Other 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
Single Family Housing	2.49512e+006	0.0135	0.1150	0.0489	7.3000e-004		9.3000e-003	9.3000e-003		9.3000e-003	9.3000e-003	0.0000	133.1490	133.1490	2.5500e-003	2.4400e-003	133.9402
Total		**0.0135**	**0.1150**	**0.0489**	**7.3000e-004**		**9.3000e-003**	**9.3000e-003**		**9.3000e-003**	**9.3000e-003**	**0.0000**	**133.1490**	**133.1490**	**2.5500e-003**	**2.4400e-003**	**133.9402**

5.2 Energy by Land Use - NaturalGas

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					
City Park	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
Other 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
Single Family Housing	2.49512e+006	0.0135	0.1150	0.0489	7.3000e-004		9.3000e-003	9.3000e-003		9.3000e-003	9.3000e-003	0.0000	133.1490	133.1490	2.5500e-003	2.4400e-003	133.9402
Total		**0.0135**	**0.1150**	**0.0489**	**7.3000e-004**		**9.3000e-003**	**9.3000e-003**		**9.3000e-003**	**9.3000e-003**	**0.0000**	**133.1490**	**133.1490**	**2.5500e-003**	**2.4400e-003**	**133.9402**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	833590	147.8334	0.0125	1.5100e-003	148.5961
Total		**147.8334**	**0.0125**	**1.5100e-003**	**148.5961**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	833590	147.8334	0.0125	1.5100e-003	148.5961
Total		**147.8334**	**0.0125**	**1.5100e-003**	**148.5961**

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	0.9764	0.0483	0.7961	2.9000e-004		7.5000e-003	7.5000e-003		7.5000e-003	7.5000e-003	0.0000	46.7605	46.7605	2.0900e-003	8.3000e-004	47.0614
Unmitigated	0.9764	0.0483	0.7961	2.9000e-004		7.5000e-003	7.5000e-003		7.5000e-003	7.5000e-003	0.0000	46.7605	46.7605	2.0900e-003	8.3000e-004	47.0614

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	0.1851					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7633					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	4.6000e-003	0.0393	0.0167	2.5000e-004		3.1800e-003	3.1800e-003		3.1800e-003	3.1800e-003	0.0000	45.4868	45.4868	8.7000e-004	8.3000e-004	45.7571
Landscaping	0.0234	8.9800e-003	0.7794	4.0000e-005		4.3200e-003	4.3200e-003		4.3200e-003	4.3200e-003	0.0000	1.2737	1.2737	1.2200e-003	0.0000	1.3043
Total	**0.9764**	**0.0483**	**0.7961**	**2.9000e-004**		**7.5000e-003**	**7.5000e-003**		**7.5000e-003**	**7.5000e-003**	**0.0000**	**46.7605**	**46.7605**	**2.0900e-003**	**8.3000e-004**	**47.0614**

6.2 Area by SubCategory

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	0.1851					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7633					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	4.6000e-003	0.0393	0.0167	2.5000e-004		3.1800e-003	3.1800e-003		3.1800e-003	3.1800e-003	0.0000	45.4868	45.4868	8.7000e-004	8.3000e-004	45.7571
Landscaping	0.0234	8.9800e-003	0.7794	4.0000e-005		4.3200e-003	4.3200e-003		4.3200e-003	4.3200e-003	0.0000	1.2737	1.2737	1.2200e-003	0.0000	1.3043
Total	**0.9764**	**0.0483**	**0.7961**	**2.9000e-004**		**7.5000e-003**	**7.5000e-003**		**7.5000e-003**	**7.5000e-003**	**0.0000**	**46.7605**	**46.7605**	**2.0900e-003**	**8.3000e-004**	**47.0614**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	14.0082	0.2239	5.3800e-003	21.2109
Unmitigated	14.0082	0.2239	5.3800e-003	21.2109

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 4.1821	2.5959	2.2000e-004	3.0000e-005	2.6093
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	6.84117 / 4.31291	11.4124	0.2237	5.3600e-003	18.6016
Total		**14.0082**	**0.2239**	**5.3900e-003**	**21.2109**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 4.1821	2.5959	2.2000e-004	3.0000e-005	2.6093
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	6.84117 / 4.31291	11.4124	0.2237	5.3600e-003	18.6016
Total		**14.0082**	**0.2239**	**5.3900e-003**	**21.2109**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	21.9839	1.2992	0.0000	54.4642
Unmitigated	21.9839	1.2992	0.0000	54.4642

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.3	0.0609	3.6000e-003	0.0000	0.1509
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	108	21.9230	1.2956	0.0000	54.3134
Total		**21.9839**	**1.2992**	**0.0000**	**54.4642**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.3	0.0609	3.6000e-003	0.0000	0.1509
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	108	21.9230	1.2956	0.0000	54.3134
Total		**21.9839**	**1.2992**	**0.0000**	**54.4642**

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

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	74.3400	0.0000	0.0000	74.3400

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	105	74.3400	0.0000	0.0000	74.3400
Total		**74.3400**	**0.0000**	**0.0000**	**74.3400**

Lombardi Development Phase 2

Tulare County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	8.43	Acre	8.43	367,210.80	0
City Park	3.51	Acre	3.51	152,895.60	0
Single Family Housing	105.00	Dwelling Unit	18.88	189,000.00	300

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 51

Climate Zone 7 **Operational Year** 2024

Utility Company Southern California Edison

CO2 Intensity (lb/MWhr) 390.98 **CH4 Intensity (lb/MWhr)** 0.033 **N2O Intensity (lb/MWhr)** 0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage adjusted for the Project site.

Construction Phase - Construction will take place over one year (January 2023 to January 2024)

Grading - Grading balanced on-site

Sequestration - At least one tree will be planted at each lot.

Construction Off-road Equipment Mitigation - SJVAPCD Rule 8021

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	35.00	13.00
tblConstructionPhase	NumDays	500.00	200.00
tblConstructionPhase	NumDays	45.00	25.00
tblConstructionPhase	NumDays	35.00	12.00

tblConstructionPhase	NumDays	20.00	10.00
tblLandUse	LotAcreage	34.09	18.88
tblSequestration	NumberOfNewTrees	0.00	105.00

2.0 Emissions Summary

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					
2023	285.0953	34.5614	28.6849	0.0656	19.8049	1.4253	21.0716	10.1417	1.3113	11.3071	0.0000	6,553.7104	6,553.7104	1.9489	0.3642	6,679.1751
Maximum	**285.0953**	**34.5614**	**28.6849**	**0.0656**	**19.8049**	**1.4253**	**21.0716**	**10.1417**	**1.3113**	**11.3071**	**0.0000**	**6,553.7104**	**6,553.7104**	**1.9489**	**0.3642**	**6,679.1751**

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					
2023	284.9581	19.3165	37.3563	0.0656	19.8049	0.1227	19.8677	10.1417	0.1207	10.2044	0.0000	6,553.7104	6,553.7104	1.9489	0.3642	6,679.1751
Maximum	**284.9581**	**19.3165**	**37.3563**	**0.0656**	**19.8049**	**0.1227**	**19.8677**	**10.1417**	**0.1207**	**10.2044**	**0.0000**	**6,553.7104**	**6,553.7104**	**1.9489**	**0.3642**	**6,679.1751**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.05	44.11	-30.23	0.00	0.00	91.39	5.71	0.00	90.80	9.75	0.00	0.00	0.00	0.00	0.00	0.00

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	5.5691	1.0578	9.0679	6.5700e-003		0.1255	0.1255		0.1255	0.1255	0.0000	1,238.5418	1,238.5418	0.0384	0.0224	1,246.1834
Energy	0.0737	0.6300	0.2681	4.0200e-003		0.0509	0.0509		0.0509	0.0509		804.2279	804.2279	0.0154	0.0147	809.0070
Mobile	3.4366	4.3777	28.4038	0.0631	6.0062	0.0516	6.0578	1.6035	0.0485	1.6519		6,420.2595	6,420.2595	0.3181	0.3178	6,522.9081
Total	**9.0794**	**6.0654**	**37.7397**	**0.0736**	**6.0062**	**0.2280**	**6.2341**	**1.6035**	**0.2249**	**1.8283**	**0.0000**	**8,463.0292**	**8,463.0292**	**0.3719**	**0.3549**	**8,578.0986**

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	5.5691	1.0578	9.0679	6.5700e-003		0.1255	0.1255		0.1255	0.1255	0.0000	1,238.5418	1,238.5418	0.0384	0.0224	1,246.1834
Energy	0.0737	0.6300	0.2681	4.0200e-003		0.0509	0.0509		0.0509	0.0509		804.2279	804.2279	0.0154	0.0147	809.0070
Mobile	3.4366	4.3777	28.4038	0.0631	6.0062	0.0516	6.0578	1.6035	0.0485	1.6519		6,420.2595	6,420.2595	0.3181	0.3178	6,522.9081
Total	**9.0794**	**6.0654**	**37.7397**	**0.0736**	**6.0062**	**0.2280**	**6.2341**	**1.6035**	**0.2249**	**1.8283**	**0.0000**	**8,463.0292**	**8,463.0292**	**0.3719**	**0.3549**	**8,578.0986**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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	1/1/2023	1/13/2023	5	10	
2	Grading	Grading	1/14/2023	2/17/2023	5	25	
3	Building Construction	Building Construction	2/18/2023	11/24/2023	5	200	
4	Paving	Paving	11/25/2023	12/12/2023	5	12	
5	Architectural Coating	Architectural Coating	12/13/2023	12/31/2023	5	13	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 75

Acres of Paving: 8.43

Residential Indoor: 382,725; Residential Outdoor: 127,575; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 22,033 (Architectural Coating – sqft)

OffRoad Equipment

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	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	256.00	96.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	51.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2023

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					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

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	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
Worker	0.0734	0.0412	0.5704	1.3500e-003	0.1479	7.4000e-004	0.1486	0.0392	6.9000e-004	0.0399		136.6267	136.6267	4.1700e-003	3.8900e-003	137.8891
Total	**0.0734**	**0.0412**	**0.5704**	**1.3500e-003**	**0.1479**	**7.4000e-004**	**0.1486**	**0.0392**	**6.9000e-004**	**0.0399**		**136.6267**	**136.6267**	**4.1700e-003**	**3.8900e-003**	**137.8891**

3.2 Site Preparation - 2023

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					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	0.6967	12.1620	22.9600	0.0381		0.0621	0.0621		0.0621	0.0621	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	**0.6967**	**12.1620**	**22.9600**	**0.0381**	**19.6570**	**0.0621**	**19.7191**	**10.1025**	**0.0621**	**10.1645**	**0.0000**	**3,687.308 1**	**3,687.308 1**	**1.1926**		**3,717.121 9**

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	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
Worker	0.0734	0.0412	0.5704	1.3500e-003	0.1479	7.4000e-004	0.1486	0.0392	6.9000e-004	0.0399		136.6267	136.6267	4.1700e-003	3.8900e-003	137.8891
Total	**0.0734**	**0.0412**	**0.5704**	**1.3500e-003**	**0.1479**	**7.4000e-004**	**0.1486**	**0.0392**	**6.9000e-004**	**0.0399**		**136.6267**	**136.6267**	**4.1700e-003**	**3.8900e-003**	**137.8891**

3.3 Grading - 2023

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					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.2036**	**1.4245**	**10.6281**	**3.6538**	**1.3105**	**4.9643**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

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	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
Worker	0.0815	0.0458	0.6337	1.5000e-003	0.1643	8.3000e-004	0.1651	0.0436	7.6000e-004	0.0443		151.8074	151.8074	4.6400e-003	4.3200e-003	153.2101
Total	**0.0815**	**0.0458**	**0.6337**	**1.5000e-003**	**0.1643**	**8.3000e-004**	**0.1651**	**0.0436**	**7.6000e-004**	**0.0443**		**151.8074**	**151.8074**	**4.6400e-003**	**4.3200e-003**	**153.2101**

3.3 Grading - 2023

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					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	1.0110	19.2707	36.7226	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**1.0110**	**19.2707**	**36.7226**	**0.0621**	**9.2036**	**0.1015**	**9.3051**	**3.6538**	**0.1015**	**3.7553**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

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	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
Worker	0.0815	0.0458	0.6337	1.5000e-003	0.1643	8.3000e-004	0.1651	0.0436	7.6000e-004	0.0443		151.8074	151.8074	4.6400e-003	4.3200e-003	153.2101
Total	**0.0815**	**0.0458**	**0.6337**	**1.5000e-003**	**0.1643**	**8.3000e-004**	**0.1651**	**0.0436**	**7.6000e-004**	**0.0443**		**151.8074**	**151.8074**	**4.6400e-003**	**4.3200e-003**	**153.2101**

3.4 Building Construction - 2023

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	0.0000
Vendor	0.1122	4.1327	1.2861	0.0194	0.6509	0.0275	0.6784	0.1874	0.0264	0.2138		2,055.3655	2,055.3655	9.6200e-003	0.3090	2,147.6796
Worker	1.0433	0.5861	8.1118	0.0192	2.1030	0.0106	2.1136	0.5578	9.7500e-003	0.5676		1,943.1350	1,943.1350	0.0594	0.0553	1,961.0894
Total	**1.1556**	**4.7188**	**9.3979**	**0.0387**	**2.7538**	**0.0381**	**2.7920**	**0.7452**	**0.0361**	**0.7813**		**3,998.5005**	**3,998.5005**	**0.0690**	**0.3642**	**4,108.7690**

3.4 Building Construction - 2023

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	0.5335	10.9122	17.8738	0.0269		0.0846	0.0846		0.0846	0.0846	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**0.5335**	**10.9122**	**17.8738**	**0.0269**		**0.0846**	**0.0846**		**0.0846**	**0.0846**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	0.0000
Vendor	0.1122	4.1327	1.2861	0.0194	0.6509	0.0275	0.6784	0.1874	0.0264	0.2138		2,055.3655	2,055.3655	9.6200e-003	0.3090	2,147.6796
Worker	1.0433	0.5861	8.1118	0.0192	2.1030	0.0106	2.1136	0.5578	9.7500e-003	0.5676		1,943.1350	1,943.1350	0.0594	0.0553	1,961.0894
Total	**1.1556**	**4.7188**	**9.3979**	**0.0387**	**2.7538**	**0.0381**	**2.7920**	**0.7452**	**0.0361**	**0.7813**		**3,998.5005**	**3,998.5005**	**0.0690**	**0.3642**	**4,108.7690**

3.5 Paving - 2023

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	1.8406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.8733**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	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
Worker	0.0611	0.0343	0.4753	1.1300e-003	0.1232	6.2000e-004	0.1238	0.0327	5.7000e-004	0.0333		113.8556	113.8556	3.4800e-003	3.2400e-003	114.9076
Total	**0.0611**	**0.0343**	**0.4753**	**1.1300e-003**	**0.1232**	**6.2000e-004**	**0.1238**	**0.0327**	**5.7000e-004**	**0.0333**		**113.8556**	**113.8556**	**3.4800e-003**	**3.2400e-003**	**114.9076**

3.5 Paving - 2023

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	0.3341	10.0395	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	1.8406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1746**	**10.0395**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	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
Worker	0.0611	0.0343	0.4753	1.1300e-003	0.1232	6.2000e-004	0.1238	0.0327	5.7000e-004	0.0333		113.8556	113.8556	3.4800e-003	3.2400e-003	114.9076
Total	**0.0611**	**0.0343**	**0.4753**	**1.1300e-003**	**0.1232**	**6.2000e-004**	**0.1238**	**0.0327**	**5.7000e-004**	**0.0333**		**113.8556**	**113.8556**	**3.4800e-003**	**3.2400e-003**	**114.9076**

3.6 Architectural Coating - 2023

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	284.6958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**284.8874**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	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
Worker	0.2079	0.1168	1.6160	3.8300e-003	0.4190	2.1100e-003	0.4211	0.1111	1.9400e-003	0.1131		387.1089	387.1089	0.0118	0.0110	390.6858
Total	**0.2079**	**0.1168**	**1.6160**	**3.8300e-003**	**0.4190**	**2.1100e-003**	**0.4211**	**0.1111**	**1.9400e-003**	**0.1131**		**387.1089**	**387.1089**	**0.0118**	**0.0110**	**390.6858**

3.6 Architectural Coating - 2023

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	284.6958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**284.7503**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	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
Worker	0.2079	0.1168	1.6160	3.8300e-003	0.4190	2.1100e-003	0.4211	0.1111	1.9400e-003	0.1131		387.1089	387.1089	0.0118	0.0110	390.6858
Total	**0.2079**	**0.1168**	**1.6160**	**3.8300e-003**	**0.4190**	**2.1100e-003**	**0.4211**	**0.1111**	**1.9400e-003**	**0.1131**		**387.1089**	**387.1089**	**0.0118**	**0.0110**	**390.6858**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive 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	3.4366	4.3777	28.4038	0.0631	6.0062	0.0516	6.0578	1.6035	0.0485	1.6519		6,420.259 5	6,420.259 5	0.3181	0.3178	6,522.908 1
Unmitigated	3.4366	4.3777	28.4038	0.0631	6.0062	0.0516	6.0578	1.6035	0.0485	1.6519		6,420.259 5	6,420.259 5	0.3181	0.3178	6,522.908 1

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	2.74	6.88	7.69	8,617	8,617
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	991.20	1,001.70	897.75	2,760,527	2,760,527
Total	993.94	1,008.58	905.44	2,769,145	2,769,145

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	38.40	22.60	39.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.509869	0.051139	0.167106	0.174849	0.031609	0.007996	0.012006	0.015707	0.000636	0.000471	0.023554	0.001465	0.003592
Other Asphalt Surfaces	0.509869	0.051139	0.167106	0.174849	0.031609	0.007996	0.012006	0.015707	0.000636	0.000471	0.023554	0.001465	0.003592
Single Family Housing	0.509869	0.051139	0.167106	0.174849	0.031609	0.007996	0.012006	0.015707	0.000636	0.000471	0.023554	0.001465	0.003592

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	0.0737	0.6300	0.2681	4.0200e-003		0.0509	0.0509		0.0509	0.0509		804.2279	804.2279	0.0154	0.0147	809.0070
NaturalGas Unmitigated	0.0737	0.6300	0.2681	4.0200e-003		0.0509	0.0509		0.0509	0.0509		804.2279	804.2279	0.0154	0.0147	809.0070

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					
City Park	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
Other 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
Single Family Housing	6835.94	0.0737	0.6300	0.2681	4.0200e-003		0.0509	0.0509		0.0509	0.0509		804.2279	804.2279	0.0154	0.0147	809.0070
Total		**0.0737**	**0.6300**	**0.2681**	**4.0200e-003**		**0.0509**	**0.0509**		**0.0509**	**0.0509**		**804.2279**	**804.2279**	**0.0154**	**0.0147**	**809.0070**

5.2 Energy by Land Use - NaturalGas

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					
City Park	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
Other 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
Single Family Housing	6.83594	0.0737	0.6300	0.2681	4.0200e-003		0.0509	0.0509		0.0509	0.0509		804.2279	804.2279	0.0154	0.0147	809.0070
Total		**0.0737**	**0.6300**	**0.2681**	**4.0200e-003**		**0.0509**	**0.0509**		**0.0509**	**0.0509**		**804.2279**	**804.2279**	**0.0154**	**0.0147**	**809.0070**

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	5.5691	1.0578	9.0679	6.5700e-003		0.1255	0.1255		0.1255	0.1255	0.0000	1,238.5418	1,238.5418	0.0384	0.0224	1,246.1834
Unmitigated	5.5691	1.0578	9.0679	6.5700e-003		0.1255	0.1255		0.1255	0.1255	0.0000	1,238.5418	1,238.5418	0.0384	0.0224	1,246.1834

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	1.0140					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.1825					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1121	0.9580	0.4077	6.1100e-003		0.0775	0.0775		0.0775	0.0775	0.0000	1,222.9412	1,222.9412	0.0234	0.0224	1,230.2085
Landscaping	0.2605	0.0998	8.6602	4.6000e-004		0.0480	0.0480		0.0480	0.0480		15.6006	15.6006	0.0150		15.9749
Total	**5.5691**	**1.0578**	**9.0679**	**6.5700e-003**		**0.1255**	**0.1255**		**0.1255**	**0.1255**	**0.0000**	**1,238.5418**	**1,238.5418**	**0.0384**	**0.0224**	**1,246.1834**

6.2 Area by SubCategory

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	1.0140					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.1825					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1121	0.9580	0.4077	6.1100e-003		0.0775	0.0775		0.0775	0.0775	0.0000	1,222.9412	1,222.9412	0.0234	0.0224	1,230.2085
Landscaping	0.2605	0.0998	8.6602	4.6000e-004		0.0480	0.0480		0.0480	0.0480		15.6006	15.6006	0.0150		15.9749
Total	**5.5691**	**1.0578**	**9.0679**	**6.5700e-003**		**0.1255**	**0.1255**		**0.1255**	**0.1255**	**0.0000**	**1,238.5418**	**1,238.5418**	**0.0384**	**0.0224**	**1,246.1834**

7.0 Water Detail

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

Lombardi Development Phase 2

Tulare County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	8.43	Acre	8.43	367,210.80	0
City Park	3.51	Acre	3.51	152,895.60	0
Single Family Housing	105.00	Dwelling Unit	18.88	189,000.00	300

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 51

Climate Zone 7 **Operational Year** 2024

Utility Company Southern California Edison

CO2 Intensity (lb/MWhr) 390.98 **CH4 Intensity (lb/MWhr)** 0.033 **N2O Intensity (lb/MWhr)** 0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage adjusted for the Project site.

Construction Phase - Construction will take place over one year (January 2023 to January 2024)

Grading - Grading balanced on-site

Sequestration - At least one tree will be planted at each lot.

Construction Off-road Equipment Mitigation - SJVAPCD Rule 8021

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	35.00	13.00
tblConstructionPhase	NumDays	500.00	200.00
tblConstructionPhase	NumDays	45.00	25.00
tblConstructionPhase	NumDays	35.00	12.00

tblConstructionPhase	NumDays	20.00	10.00
tblLandUse	LotAcreage	34.09	18.88
tblSequestration	NumberOfNewTrees	0.00	105.00

2.0 Emissions Summary

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					
2023	285.0694	34.5693	28.5826	0.0634	19.8049	1.4253	21.0716	10.1417	1.3113	11.3071	0.0000	6,335.6819	6,335.6819	1.9493	0.3713	6,463.3811
Maximum	**285.0694**	**34.5693**	**28.5826**	**0.0634**	**19.8049**	**1.4253**	**21.0716**	**10.1417**	**1.3113**	**11.3071**	**0.0000**	**6,335.6819**	**6,335.6819**	**1.9493**	**0.3713**	**6,463.3811**

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					
2023	284.9322	19.3244	37.2540	0.0634	19.8049	0.1228	19.8677	10.1417	0.1208	10.2044	0.0000	6,335.6819	6,335.6819	1.9493	0.3713	6,463.3811
Maximum	**284.9322**	**19.3244**	**37.2540**	**0.0634**	**19.8049**	**0.1228**	**19.8677**	**10.1417**	**0.1208**	**10.2044**	**0.0000**	**6,335.6819**	**6,335.6819**	**1.9493**	**0.3713**	**6,463.3811**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.05	44.10	-30.34	0.00	0.00	91.38	5.71	0.00	90.79	9.75	0.00	0.00	0.00	0.00	0.00	0.00

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	5.5691	1.0578	9.0679	6.5700e-003		0.1255	0.1255		0.1255	0.1255	0.0000	1,238.5418	1,238.5418	0.0384	0.0224	1,246.1834
Energy	0.0737	0.6300	0.2681	4.0200e-003		0.0509	0.0509		0.0509	0.0509		804.2279	804.2279	0.0154	0.0147	809.0070
Mobile	2.6642	4.9082	26.9440	0.0577	6.0062	0.0516	6.0578	1.6035	0.0485	1.6520		5,879.1842	5,879.1842	0.3549	0.3387	5,988.9905
Total	**8.3071**	**6.5959**	**36.2799**	**0.0683**	**6.0062**	**0.2280**	**6.2342**	**1.6035**	**0.2249**	**1.8284**	**0.0000**	**7,921.9539**	**7,921.9539**	**0.4087**	**0.3759**	**8,044.1809**

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	5.5691	1.0578	9.0679	6.5700e-003		0.1255	0.1255		0.1255	0.1255	0.0000	1,238.5418	1,238.5418	0.0384	0.0224	1,246.1834
Energy	0.0737	0.6300	0.2681	4.0200e-003		0.0509	0.0509		0.0509	0.0509		804.2279	804.2279	0.0154	0.0147	809.0070
Mobile	2.6642	4.9082	26.9440	0.0577	6.0062	0.0516	6.0578	1.6035	0.0485	1.6520		5,879.1842	5,879.1842	0.3549	0.3387	5,988.9905
Total	**8.3071**	**6.5959**	**36.2799**	**0.0683**	**6.0062**	**0.2280**	**6.2342**	**1.6035**	**0.2249**	**1.8284**	**0.0000**	**7,921.9539**	**7,921.9539**	**0.4087**	**0.3759**	**8,044.1809**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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	1/1/2023	1/13/2023	5	10	
2	Grading	Grading	1/14/2023	2/17/2023	5	25	
3	Building Construction	Building Construction	2/18/2023	11/24/2023	5	200	
4	Paving	Paving	11/25/2023	12/12/2023	5	12	
5	Architectural Coating	Architectural Coating	12/13/2023	12/31/2023	5	13	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 75

Acres of Paving: 8.43

Residential Indoor: 382,725; Residential Outdoor: 127,575; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 22,033 (Architectural Coating – sqft)

OffRoad Equipment

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	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	256.00	96.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	51.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2023

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					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.308 1**	**3,687.308 1**	**1.1926**		**3,717.121 9**

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	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
Worker	0.0642	0.0483	0.4782	1.2000e-003	0.1479	7.4000e-004	0.1486	0.0392	6.9000e-004	0.0399		121.0230	121.0230	4.6000e-003	4.3200e-003	122.4250
Total	**0.0642**	**0.0483**	**0.4782**	**1.2000e-003**	**0.1479**	**7.4000e-004**	**0.1486**	**0.0392**	**6.9000e-004**	**0.0399**		**121.0230**	**121.0230**	**4.6000e-003**	**4.3200e-003**	**122.4250**

3.2 Site Preparation - 2023

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					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	0.6967	12.1620	22.9600	0.0381		0.0621	0.0621		0.0621	0.0621	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	**0.6967**	**12.1620**	**22.9600**	**0.0381**	**19.6570**	**0.0621**	**19.7191**	**10.1025**	**0.0621**	**10.1645**	**0.0000**	**3,687.308 1**	**3,687.308 1**	**1.1926**		**3,717.121 9**

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	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
Worker	0.0642	0.0483	0.4782	1.2000e-003	0.1479	7.4000e-004	0.1486	0.0392	6.9000e-004	0.0399		121.0230	121.0230	4.6000e-003	4.3200e-003	122.4250
Total	**0.0642**	**0.0483**	**0.4782**	**1.2000e-003**	**0.1479**	**7.4000e-004**	**0.1486**	**0.0392**	**6.9000e-004**	**0.0399**		**121.0230**	**121.0230**	**4.6000e-003**	**4.3200e-003**	**122.4250**

3.3 Grading - 2023

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					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.2036**	**1.4245**	**10.6281**	**3.6538**	**1.3105**	**4.9643**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

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	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
Worker	0.0714	0.0537	0.5314	1.3300e-003	0.1643	8.3000e-004	0.1651	0.0436	7.6000e-004	0.0443		134.4700	134.4700	5.1100e-003	4.8000e-003	136.0278
Total	**0.0714**	**0.0537**	**0.5314**	**1.3300e-003**	**0.1643**	**8.3000e-004**	**0.1651**	**0.0436**	**7.6000e-004**	**0.0443**		**134.4700**	**134.4700**	**5.1100e-003**	**4.8000e-003**	**136.0278**

3.3 Grading - 2023

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					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	1.0110	19.2707	36.7226	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**1.0110**	**19.2707**	**36.7226**	**0.0621**	**9.2036**	**0.1015**	**9.3051**	**3.6538**	**0.1015**	**3.7553**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

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	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
Worker	0.0714	0.0537	0.5314	1.3300e-003	0.1643	8.3000e-004	0.1651	0.0436	7.6000e-004	0.0443		134.4700	134.4700	5.1100e-003	4.8000e-003	136.0278
Total	**0.0714**	**0.0537**	**0.5314**	**1.3300e-003**	**0.1643**	**8.3000e-004**	**0.1651**	**0.0436**	**7.6000e-004**	**0.0443**		**134.4700**	**134.4700**	**5.1100e-003**	**4.8000e-003**	**136.0278**

3.4 Building Construction - 2023

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	0.0000
Vendor	0.1056	4.4305	1.3298	0.0195	0.6509	0.0276	0.6785	0.1874	0.0264	0.2139		2,059.2561	2,059.2561	9.3100e-003	0.3098	2,151.8193
Worker	0.9132	0.6869	6.8016	0.0170	2.1030	0.0106	2.1136	0.5578	9.7500e-003	0.5676		1,721.2158	1,721.2158	0.0654	0.0614	1,741.1558
Total	**1.0188**	**5.1174**	**8.1314**	**0.0365**	**2.7538**	**0.0382**	**2.7921**	**0.7452**	**0.0362**	**0.7814**		**3,780.4719**	**3,780.4719**	**0.0747**	**0.3713**	**3,892.9751**

3.4 Building Construction - 2023

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	0.5335	10.9122	17.8738	0.0269		0.0846	0.0846		0.0846	0.0846	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**0.5335**	**10.9122**	**17.8738**	**0.0269**		**0.0846**	**0.0846**		**0.0846**	**0.0846**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	0.0000
Vendor	0.1056	4.4305	1.3298	0.0195	0.6509	0.0276	0.6785	0.1874	0.0264	0.2139		2,059.2561	2,059.2561	9.3100e-003	0.3098	2,151.8193
Worker	0.9132	0.6869	6.8016	0.0170	2.1030	0.0106	2.1136	0.5578	9.7500e-003	0.5676		1,721.2158	1,721.2158	0.0654	0.0614	1,741.1558
Total	**1.0188**	**5.1174**	**8.1314**	**0.0365**	**2.7538**	**0.0382**	**2.7921**	**0.7452**	**0.0362**	**0.7814**		**3,780.4719**	**3,780.4719**	**0.0747**	**0.3713**	**3,892.9751**

3.5 Paving - 2023

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	1.8406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.8733**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	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
Worker	0.0535	0.0403	0.3985	1.0000e-003	0.1232	6.2000e-004	0.1238	0.0327	5.7000e-004	0.0333		100.8525	100.8525	3.8300e-003	3.6000e-003	102.0209
Total	**0.0535**	**0.0403**	**0.3985**	**1.0000e-003**	**0.1232**	**6.2000e-004**	**0.1238**	**0.0327**	**5.7000e-004**	**0.0333**		**100.8525**	**100.8525**	**3.8300e-003**	**3.6000e-003**	**102.0209**

3.5 Paving - 2023

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	0.3341	10.0395	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	1.8406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1746**	**10.0395**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	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
Worker	0.0535	0.0403	0.3985	1.0000e-003	0.1232	6.2000e-004	0.1238	0.0327	5.7000e-004	0.0333		100.8525	100.8525	3.8300e-003	3.6000e-003	102.0209
Total	**0.0535**	**0.0403**	**0.3985**	**1.0000e-003**	**0.1232**	**6.2000e-004**	**0.1238**	**0.0327**	**5.7000e-004**	**0.0333**		**100.8525**	**100.8525**	**3.8300e-003**	**3.6000e-003**	**102.0209**

3.6 Architectural Coating - 2023

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	284.6958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**284.8874**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	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
Worker	0.1819	0.1369	1.3550	3.3900e-003	0.4190	2.1100e-003	0.4211	0.1111	1.9400e-003	0.1131		342.8985	342.8985	0.0130	0.0122	346.8709
Total	**0.1819**	**0.1369**	**1.3550**	**3.3900e-003**	**0.4190**	**2.1100e-003**	**0.4211**	**0.1111**	**1.9400e-003**	**0.1131**		**342.8985**	**342.8985**	**0.0130**	**0.0122**	**346.8709**

3.6 Architectural Coating - 2023

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	284.6958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0545	1.0598	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**284.7503**	**1.0598**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	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
Worker	0.1819	0.1369	1.3550	3.3900e-003	0.4190	2.1100e-003	0.4211	0.1111	1.9400e-003	0.1131		342.8985	342.8985	0.0130	0.0122	346.8709
Total	**0.1819**	**0.1369**	**1.3550**	**3.3900e-003**	**0.4190**	**2.1100e-003**	**0.4211**	**0.1111**	**1.9400e-003**	**0.1131**		**342.8985**	**342.8985**	**0.0130**	**0.0122**	**346.8709**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive 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	2.6642	4.9082	26.9440	0.0577	6.0062	0.0516	6.0578	1.6035	0.0485	1.6520		5,879.1842	5,879.1842	0.3549	0.3387	5,988.9905
Unmitigated	2.6642	4.9082	26.9440	0.0577	6.0062	0.0516	6.0578	1.6035	0.0485	1.6520		5,879.1842	5,879.1842	0.3549	0.3387	5,988.9905

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	2.74	6.88	7.69	8,617	8,617
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	991.20	1,001.70	897.75	2,760,527	2,760,527
Total	993.94	1,008.58	905.44	2,769,145	2,769,145

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	38.40	22.60	39.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.509869	0.051139	0.167106	0.174849	0.031609	0.007996	0.012006	0.015707	0.000636	0.000471	0.023554	0.001465	0.003592
Other Asphalt Surfaces	0.509869	0.051139	0.167106	0.174849	0.031609	0.007996	0.012006	0.015707	0.000636	0.000471	0.023554	0.001465	0.003592
Single Family Housing	0.509869	0.051139	0.167106	0.174849	0.031609	0.007996	0.012006	0.015707	0.000636	0.000471	0.023554	0.001465	0.003592

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	0.0737	0.6300	0.2681	4.0200e-003		0.0509	0.0509		0.0509	0.0509		804.2279	804.2279	0.0154	0.0147	809.0070
NaturalGas Unmitigated	0.0737	0.6300	0.2681	4.0200e-003		0.0509	0.0509		0.0509	0.0509		804.2279	804.2279	0.0154	0.0147	809.0070

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					
City Park	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
Other 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
Single Family Housing	6835.94	0.0737	0.6300	0.2681	4.0200e-003		0.0509	0.0509		0.0509	0.0509		804.2279	804.2279	0.0154	0.0147	809.0070
Total		**0.0737**	**0.6300**	**0.2681**	**4.0200e-003**		**0.0509**	**0.0509**		**0.0509**	**0.0509**		**804.2279**	**804.2279**	**0.0154**	**0.0147**	**809.0070**

5.2 Energy by Land Use - NaturalGas

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					
City Park	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
Other 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
Single Family Housing	6.83594	0.0737	0.6300	0.2681	4.0200e-003		0.0509	0.0509		0.0509	0.0509		804.2279	804.2279	0.0154	0.0147	809.0070
Total		**0.0737**	**0.6300**	**0.2681**	**4.0200e-003**		**0.0509**	**0.0509**		**0.0509**	**0.0509**		**804.2279**	**804.2279**	**0.0154**	**0.0147**	**809.0070**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive 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	5.5691	1.0578	9.0679	6.5700e-003		0.1255	0.1255		0.1255	0.1255	0.0000	1,238.5418	1,238.5418	0.0384	0.0224	1,246.1834
Unmitigated	5.5691	1.0578	9.0679	6.5700e-003		0.1255	0.1255		0.1255	0.1255	0.0000	1,238.5418	1,238.5418	0.0384	0.0224	1,246.1834

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	1.0140					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.1825					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1121	0.9580	0.4077	6.1100e-003		0.0775	0.0775		0.0775	0.0775	0.0000	1,222.9412	1,222.9412	0.0234	0.0224	1,230.2085
Landscaping	0.2605	0.0998	8.6602	4.6000e-004		0.0480	0.0480		0.0480	0.0480		15.6006	15.6006	0.0150		15.9749
Total	**5.5691**	**1.0578**	**9.0679**	**6.5700e-003**		**0.1255**	**0.1255**		**0.1255**	**0.1255**	**0.0000**	**1,238.5418**	**1,238.5418**	**0.0384**	**0.0224**	**1,246.1834**

6.2 Area by SubCategory

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	1.0140					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.1825					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1121	0.9580	0.4077	6.1100e-003		0.0775	0.0775		0.0775	0.0775	0.0000	1,222.9412	1,222.9412	0.0234	0.0224	1,230.2085
Landscaping	0.2605	0.0998	8.6602	4.6000e-004		0.0480	0.0480		0.0480	0.0480		15.6006	15.6006	0.0150		15.9749
Total	**5.5691**	**1.0578**	**9.0679**	**6.5700e-003**		**0.1255**	**0.1255**		**0.1255**	**0.1255**	**0.0000**	**1,238.5418**	**1,238.5418**	**0.0384**	**0.0224**	**1,246.1834**

7.0 Water Detail

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

APPENDIX B

HEALTH RISK CALCULATIONS AND AERMOD OUTPUT FILES

```
**
***************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 7/23/2021
** File: C:\Lakes\AERMOD View\LombardiPorterville\LombardiPorterville.ADI
**
***************************************
**
**
***************************************
** AERMOD Control Pathway
***************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\LombardiPorterville\LombardiPorterville.isc
   MODELOPT DFAULT CONC
   AVERTIME 1 ANNUAL
   URBANOPT 59988 Porterville,_CA
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL LombardiPorterville.err
CO FINISHED
**
***************************************
** AERMOD Source Pathway
***************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION PAREA1       AREAPOLY   313577.994  3996166.184      125.800
** Source Parameters **
   SRCPARAM PAREA1       1.4246E-08     3.000        13
   AREAVERT PAREA1       313577.994 3996166.184 313563.335 3995657.628
   AREAVERT PAREA1       313703.160 3995653.117 313704.288 3995698.222
   AREAVERT PAREA1       313804.646 3995697.095 313802.390 3995655.373
   AREAVERT PAREA1       313954.619 3995648.607 313955.747 3995897.811
   AREAVERT PAREA1       313909.514 3995897.811 313911.769 3996035.380
   AREAVERT PAREA1       313956.874 3996036.508 313961.385 3996256.394
   AREAVERT PAREA1       313661.438 3996256.394
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
***************************************
```

```
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED LombardiPorterville.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE "C:\Users\kheck\Desktop\Porterville Met Data\Porterville_2006-2009.SFC"
   PROFFILE "C:\Users\kheck\Desktop\Porterville Met Data\Porterville_2006-2009.PFL"
   SURFDATA 23149 2006 Porterville
   UAIRDATA 23230 2006 OAKLAND/WSO_AP
   PROFBASE 135.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST LombardiPorterville.AD\01H1GALL.PLT 31
   PLOTFILE ANNUAL ALL LombardiPorterville.AD\AN00GALL.PLT 32
   SUMMFILE LombardiPorterville.sum
OU FINISHED
**
****************************************
** Project Parameters
****************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     11
** ZONEINX  0
**
```

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 7/23/2021
** File: C:\Lakes\AERMOD View\LombardiPorterville\LombardiPorterville.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\LombardiPorterville\LombardiPorterville.isc
   MODELOPT DFAULT CONC
   AVERTIME 1 ANNUAL
   URBANOPT 59988 Porterville,_CA
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL LombardiPorterville.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION PAREA1       AREAPOLY   313577.994  3996166.184      125.800
** Source Parameters **
   SRCPARAM PAREA1       1.4246E-08     3.000        13
   AREAVERT PAREA1       313577.994 3996166.184 313563.335 3995657.628
   AREAVERT PAREA1       313703.160 3995653.117 313704.288 3995698.222
   AREAVERT PAREA1       313804.646 3995697.095 313802.390 3995655.373
   AREAVERT PAREA1       313954.619 3995648.607 313955.747 3995897.811
   AREAVERT PAREA1       313909.514 3995897.811 313911.769 3996035.380
   AREAVERT PAREA1       313956.874 3996036.508 313961.385 3996256.394
   AREAVERT PAREA1       313661.438 3996256.394
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
```

```
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED LombardiPorterville.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE "C:\Users\kheck\Desktop\Porterville Met Data\Porterville_2006-2009.SFC"
   PROFFILE "C:\Users\kheck\Desktop\Porterville Met Data\Porterville_2006-2009.PFL"
   SURFDATA 23149 2006 Porterville
   UAIRDATA 23230 2006 OAKLAND/WSO_AP
   PROFBASE 135.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST LombardiPorterville.AD\01H1GALL.PLT 31
   PLOTFILE ANNUAL ALL LombardiPorterville.AD\AN00GALL.PLT 32
   SUMMFILE LombardiPorterville.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
```

```
 ME W187      70       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


 **********************************
 *** SETUP Finishes Successfully ***
 **********************************

 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\LombardiPorterville\LombardiPorterville.isc     ***        07/23/21
 *** AERMET - VERSION  18081 ***   ***
                       ***        09:19:05

                                  PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                            ***     MODEL SETUP OPTIONS SUMMARY
 ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for     1 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =     59988.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         ADJ_U*   - Use ADJ_U* option for SBL in AERMET
         CCVR_Sub - Meteorological data includes CCVR substitutions
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_2.5

 **Model Calculates  1 Short Term Average(s) of:   1-HR
```

```
     and Calculates ANNUAL Averages

 **This Run Includes:      1 Source(s);       1 Source Group(s); and    1934
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 VOLUME source(s)
                 and:      1 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with a total of     0 line(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  18081

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and
Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   135.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                              ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.7 MB of RAM.

 **Input Runstream File:          aermod.inp

 **Output Print File:             aermod.out


 **Detailed Error/Message File:   LombardiPorterville.err

 **File for Summary of Results:   LombardiPorterville.sum
```

```
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\LombardiPorterville\LombardiPorterville.isc     ***        07/23/21
 *** AERMET - VERSION  18081 ***   ***
                       ***        09:19:05

                                  PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                                *** AREAPOLY SOURCE DATA ***

               NUMBER EMISSION RATE   LOCATION OF AREA  BASE     RELEASE  NUMBER
 INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X        Y      ELEV.    HEIGHT  OF VERTS.
  SZ     SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 PAREA1           0   0.14246E-07  313578.0 3996166.2   125.8     3.00      13
  0.00     YES
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\LombardiPorterville\LombardiPorterville.isc     ***        07/23/21
 *** AERMET - VERSION  18081 ***   ***
                       ***        09:19:05

                                  PAGE   3
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                           *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                                SOURCE IDs
 -----------                                                ----------


  ALL        PAREA1     ,
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\LombardiPorterville\LombardiPorterville.isc     ***        07/23/21
 *** AERMET - VERSION  18081 ***   ***
                       ***        09:19:05

                                  PAGE   4
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***
```

```
  URBAN ID   URBAN POP                                      SOURCE IDs
  --------   ---------                                      ----------


              59988.   PAREA1      ,
```

```
                                     *** DISCRETE CARTESIAN RECEPTORS ***
                                   (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                  (METERS)

     ( 313271.5, 3995341.5,     126.0,     126.0,       0.0);         ( 313291.5,
3995341.5,     126.0,     126.0,       0.0);
     ( 313311.5, 3995341.5,     126.1,     126.1,       0.0);         ( 313331.5,
3995341.5,     126.1,     126.1,       0.0);
     ( 313351.5, 3995341.5,     126.1,     126.1,       0.0);         ( 313371.5,
3995341.5,     126.1,     126.1,       0.0);
     ( 313391.5, 3995341.5,     126.2,     126.2,       0.0);         ( 313411.5,
3995341.5,     126.2,     126.2,       0.0);
     ( 313431.5, 3995341.5,     126.2,     126.2,       0.0);         ( 313451.5,
3995341.5,     126.3,     126.3,       0.0);
     ( 313471.5, 3995341.5,     126.3,     126.3,       0.0);         ( 313491.5,
3995341.5,     126.3,     126.3,       0.0);
     ( 313511.5, 3995341.5,     126.4,     126.4,       0.0);         ( 313531.5,
3995341.5,     126.4,     126.4,       0.0);
     ( 313551.5, 3995341.5,     126.4,     126.4,       0.0);         ( 313571.5,
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     ( 313591.5, 3995341.5,     126.5,     126.5,       0.0);         ( 313611.5,
3995341.5,     126.5,     126.5,       0.0);
     ( 313631.5, 3995341.5,     126.5,     126.5,       0.0);         ( 313651.5,
3995341.5,     126.6,     126.6,       0.0);
     ( 313671.5, 3995341.5,     126.6,     126.6,       0.0);         ( 313691.5,
3995341.5,     126.6,     126.6,       0.0);
     ( 313711.5, 3995341.5,     126.7,     126.7,       0.0);         ( 313731.5,
3995341.5,     126.7,     126.7,       0.0);
     ( 313751.5, 3995341.5,     126.7,     126.7,       0.0);         ( 313771.5,
3995341.5,     126.7,     126.7,       0.0);
     ( 313791.5, 3995341.5,     126.8,     126.8,       0.0);         ( 313811.5,
3995341.5,     126.8,     126.8,       0.0);
     ( 313831.5, 3995341.5,     126.8,     126.8,       0.0);         ( 313851.5,
3995341.5,     126.8,     126.8,       0.0);
     ( 313871.5, 3995341.5,     126.9,     126.9,       0.0);         ( 313891.5,
3995341.5,     126.9,     126.9,       0.0);
     ( 313911.5, 3995341.5,     126.9,     126.9,       0.0);         ( 313931.5,
```

```
3995341.5,     127.0,     127.0,       0.0);
     ( 313951.5, 3995341.5,     127.0,     127.0,       0.0);          ( 313971.5,
3995341.5,     127.0,     127.0,       0.0);
     ( 313991.5, 3995341.5,     127.0,     127.0,       0.0);          ( 314011.5,
3995341.5,     127.0,     127.0,       0.0);
     ( 314031.5, 3995341.5,     127.0,     127.0,       0.0);          ( 314051.5,
3995341.5,     127.0,     127.0,       0.0);
     ( 314071.5, 3995341.5,     127.1,     127.1,       0.0);          ( 314091.5,
3995341.5,     127.1,     127.1,       0.0);
     ( 314111.5, 3995341.5,     127.1,     127.1,       0.0);          ( 314131.5,
3995341.5,     127.1,     127.1,       0.0);
     ( 314151.5, 3995341.5,     127.1,     127.1,       0.0);          ( 314171.5,
3995341.5,     127.1,     127.1,       0.0);
     ( 314191.5, 3995341.5,     127.1,     127.1,       0.0);          ( 314211.5,
3995341.5,     127.2,     127.2,       0.0);
     ( 314231.5, 3995341.5,     127.2,     127.2,       0.0);          ( 314251.5,
3995341.5,     127.2,     127.2,       0.0);
     ( 314271.5, 3995341.5,     127.2,     127.2,       0.0);          ( 313271.5,
3995361.5,     126.0,     126.0,       0.0);
     ( 313291.5, 3995361.5,     126.0,     126.0,       0.0);          ( 313311.5,
3995361.5,     126.0,     126.0,       0.0);
     ( 313331.5, 3995361.5,     126.1,     126.1,       0.0);          ( 313351.5,
3995361.5,     126.1,     126.1,       0.0);
     ( 313371.5, 3995361.5,     126.1,     126.1,       0.0);          ( 313391.5,
3995361.5,     126.1,     126.1,       0.0);
     ( 313411.5, 3995361.5,     126.2,     126.2,       0.0);          ( 313431.5,
3995361.5,     126.2,     126.2,       0.0);
     ( 313451.5, 3995361.5,     126.2,     126.2,       0.0);          ( 313471.5,
3995361.5,     126.3,     126.3,       0.0);
     ( 313491.5, 3995361.5,     126.3,     126.3,       0.0);          ( 313511.5,
3995361.5,     126.3,     126.3,       0.0);
     ( 313531.5, 3995361.5,     126.3,     126.3,       0.0);          ( 313551.5,
3995361.5,     126.4,     126.4,       0.0);
     ( 313571.5, 3995361.5,     126.4,     126.4,       0.0);          ( 313591.5,
3995361.5,     126.4,     126.4,       0.0);
     ( 313611.5, 3995361.5,     126.5,     126.5,       0.0);          ( 313631.5,
3995361.5,     126.5,     126.5,       0.0);
     ( 313651.5, 3995361.5,     126.5,     126.5,       0.0);          ( 313671.5,
3995361.5,     126.5,     126.5,       0.0);
     ( 313691.5, 3995361.5,     126.6,     126.6,       0.0);          ( 313711.5,
3995361.5,     126.6,     126.6,       0.0);
     ( 313731.5, 3995361.5,     126.6,     126.6,       0.0);          ( 313751.5,
3995361.5,     126.7,     126.7,       0.0);
     ( 313771.5, 3995361.5,     126.7,     126.7,       0.0);          ( 313791.5,
3995361.5,     126.7,     126.7,       0.0);
     ( 313811.5, 3995361.5,     126.8,     126.8,       0.0);          ( 313831.5,
3995361.5,     126.8,     126.8,       0.0);
     ( 313851.5, 3995361.5,     126.8,     126.8,       0.0);          ( 313871.5,
3995361.5,     126.8,     126.8,       0.0);
     ( 313891.5, 3995361.5,     126.9,     126.9,       0.0);          ( 313911.5,
```

3995361.5,   126.9,   126.9,   0.0);
(313931.5, 3995361.5,   126.9,   126.9,   0.0);   (313951.5,
3995361.5,   126.9,   126.9,   0.0);
(313971.5, 3995361.5,   126.9,   126.9,   0.0);   (313991.5,
3995361.5,   127.0,   127.0,   0.0);
(314011.5, 3995361.5,   127.0,   127.0,   0.0);   (314031.5,
3995361.5,   127.0,   127.0,   0.0);

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(314051.5, 3995361.5,   127.0,   127.0,   0.0);   (314071.5,
3995361.5,   127.0,   127.0,   0.0);
(314091.5, 3995361.5,   127.0,   127.0,   0.0);   (314111.5,
3995361.5,   127.1,   127.1,   0.0);
(314131.5, 3995361.5,   127.1,   127.1,   0.0);   (314151.5,
3995361.5,   127.1,   127.1,   0.0);
(314171.5, 3995361.5,   127.1,   127.1,   0.0);   (314191.5,
3995361.5,   127.1,   127.1,   0.0);
(314211.5, 3995361.5,   127.1,   127.1,   0.0);   (314231.5,
3995361.5,   127.2,   127.2,   0.0);
(314251.5, 3995361.5,   127.2,   127.2,   0.0);   (314271.5,
3995361.5,   127.2,   127.2,   0.0);
(313271.5, 3995381.5,   126.0,   126.0,   0.0);   (313291.5,
3995381.5,   126.0,   126.0,   0.0);
(313311.5, 3995381.5,   126.0,   126.0,   0.0);   (313331.5,
3995381.5,   126.0,   126.0,   0.0);
(313351.5, 3995381.5,   126.0,   126.0,   0.0);   (313371.5,
3995381.5,   126.1,   126.1,   0.0);
(313391.5, 3995381.5,   126.1,   126.1,   0.0);   (313411.5,
3995381.5,   126.1,   126.1,   0.0);
(313431.5, 3995381.5,   126.2,   126.2,   0.0);   (313451.5,
3995381.5,   126.2,   126.2,   0.0);
(313471.5, 3995381.5,   126.2,   126.2,   0.0);   (313491.5,
3995381.5,   126.2,   126.2,   0.0);
(313511.5, 3995381.5,   126.3,   126.3,   0.0);   (313531.5,
3995381.5,   126.3,   126.3,   0.0);
(313551.5, 3995381.5,   126.3,   126.3,   0.0);   (313571.5,
3995381.5,   126.4,   126.4,   0.0);
(313591.5, 3995381.5,   126.4,   126.4,   0.0);   (313611.5,
3995381.5,   126.4,   126.4,   0.0);
(313631.5, 3995381.5,   126.5,   126.5,   0.0);   (313651.5,

3995381.5,   126.5,   126.5,   0.0);
     (313671.5, 3995381.5,   126.5,   126.5,   0.0);   (313691.5,
3995381.5,   126.5,   126.5,   0.0);
     (313711.5, 3995381.5,   126.6,   126.6,   0.0);   (313731.5,
3995381.5,   126.6,   126.6,   0.0);
     (313751.5, 3995381.5,   126.6,   126.6,   0.0);   (313771.5,
3995381.5,   126.7,   126.7,   0.0);
     (313791.5, 3995381.5,   126.7,   126.7,   0.0);   (313811.5,
3995381.5,   126.7,   126.7,   0.0);
     (313831.5, 3995381.5,   126.7,   126.7,   0.0);   (313851.5,
3995381.5,   126.8,   126.8,   0.0);
     (313871.5, 3995381.5,   126.8,   126.8,   0.0);   (313891.5,
3995381.5,   126.8,   126.8,   0.0);
     (313911.5, 3995381.5,   126.8,   126.8,   0.0);   (313931.5,
3995381.5,   126.8,   126.8,   0.0);
     (313951.5, 3995381.5,   126.9,   126.9,   0.0);   (313971.5,
3995381.5,   126.9,   126.9,   0.0);
     (313991.5, 3995381.5,   126.9,   126.9,   0.0);   (314011.5,
3995381.5,   126.9,   126.9,   0.0);
     (314031.5, 3995381.5,   127.0,   127.0,   0.0);   (314051.5,
3995381.5,   127.0,   127.0,   0.0);
     (314071.5, 3995381.5,   127.0,   127.0,   0.0);   (314091.5,
3995381.5,   127.0,   127.0,   0.0);
     (314111.5, 3995381.5,   127.0,   127.0,   0.0);   (314131.5,
3995381.5,   127.0,   127.0,   0.0);
     (314151.5, 3995381.5,   127.1,   127.1,   0.0);   (314171.5,
3995381.5,   127.1,   127.1,   0.0);
     (314191.5, 3995381.5,   127.1,   127.1,   0.0);   (314211.5,
3995381.5,   127.1,   127.1,   0.0);
     (314231.5, 3995381.5,   127.1,   127.1,   0.0);   (314251.5,
3995381.5,   127.2,   127.2,   0.0);
     (314271.5, 3995381.5,   127.2,   127.2,   0.0);   (313271.5,
3995401.5,   125.9,   125.9,   0.0);
     (313291.5, 3995401.5,   125.9,   125.9,   0.0);   (313311.5,
3995401.5,   126.0,   126.0,   0.0);
     (313331.5, 3995401.5,   126.0,   126.0,   0.0);   (313351.5,
3995401.5,   126.0,   126.0,   0.0);
     (313371.5, 3995401.5,   126.0,   126.0,   0.0);   (313391.5,
3995401.5,   126.1,   126.1,   0.0);
     (313411.5, 3995401.5,   126.1,   126.1,   0.0);   (313431.5,
3995401.5,   126.1,   126.1,   0.0);
     (313451.5, 3995401.5,   126.1,   126.1,   0.0);   (313471.5,
3995401.5,   126.2,   126.2,   0.0);
     (313491.5, 3995401.5,   126.2,   126.2,   0.0);   (313511.5,
3995401.5,   126.2,   126.2,   0.0);
     (313531.5, 3995401.5,   126.3,   126.3,   0.0);   (313551.5,
3995401.5,   126.3,   126.3,   0.0);
     (313571.5, 3995401.5,   126.3,   126.3,   0.0);   (313591.5,
3995401.5,   126.4,   126.4,   0.0);
     (313611.5, 3995401.5,   126.4,   126.4,   0.0);   (313631.5,

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3995401.5,     126.4,     126.4,       0.0);
     ( 313651.5, 3995401.5,     126.4,     126.4,       0.0);          ( 313671.5,
3995401.5,     126.5,     126.5,       0.0);
     ( 313691.5, 3995401.5,     126.5,     126.5,       0.0);          ( 313711.5,
3995401.5,     126.5,     126.5,       0.0);
     ( 313731.5, 3995401.5,     126.6,     126.6,       0.0);          ( 313751.5,
3995401.5,     126.6,     126.6,       0.0);
     ( 313771.5, 3995401.5,     126.6,     126.6,       0.0);          ( 313791.5,
3995401.5,     126.6,     126.6,       0.0);
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                                             *** DISCRETE CARTESIAN RECEPTORS ***
                                           (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                            (METERS)

     ( 313811.5, 3995401.5,     126.7,     126.7,       0.0);          ( 313831.5,
3995401.5,     126.7,     126.7,       0.0);
     ( 313851.5, 3995401.5,     126.7,     126.7,       0.0);          ( 313871.5,
3995401.5,     126.7,     126.7,       0.0);
     ( 313891.5, 3995401.5,     126.8,     126.8,       0.0);          ( 313911.5,
3995401.5,     126.8,     126.8,       0.0);
     ( 313931.5, 3995401.5,     126.8,     126.8,       0.0);          ( 313951.5,
3995401.5,     126.8,     126.8,       0.0);
     ( 313971.5, 3995401.5,     126.8,     126.8,       0.0);          ( 313991.5,
3995401.5,     126.9,     126.9,       0.0);
     ( 314011.5, 3995401.5,     126.9,     126.9,       0.0);          ( 314031.5,
3995401.5,     126.9,     126.9,       0.0);
     ( 314051.5, 3995401.5,     126.9,     126.9,       0.0);          ( 314071.5,
3995401.5,     127.0,     127.0,       0.0);
     ( 314091.5, 3995401.5,     127.0,     127.0,       0.0);          ( 314111.5,
3995401.5,     127.0,     127.0,       0.0);
     ( 314131.5, 3995401.5,     127.0,     127.0,       0.0);          ( 314151.5,
3995401.5,     127.0,     127.0,       0.0);
     ( 314171.5, 3995401.5,     127.0,     127.0,       0.0);          ( 314191.5,
3995401.5,     127.1,     127.1,       0.0);
     ( 314211.5, 3995401.5,     127.1,     127.1,       0.0);          ( 314231.5,
3995401.5,     127.1,     127.1,       0.0);
     ( 314251.5, 3995401.5,     127.1,     127.1,       0.0);          ( 314271.5,
3995401.5,     127.2,     127.2,       0.0);
     ( 313271.5, 3995421.5,     125.9,     125.9,       0.0);          ( 313291.5,
3995421.5,     125.9,     125.9,       0.0);
     ( 313311.5, 3995421.5,     125.9,     125.9,       0.0);          ( 313331.5,
3995421.5,     126.0,     126.0,       0.0);
     ( 313351.5, 3995421.5,     126.0,     126.0,       0.0);          ( 313371.5,
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3995421.5,     126.0,     126.0,       0.0);
     ( 313391.5, 3995421.5,     126.0,     126.0,       0.0);          ( 313411.5,
3995421.5,     126.1,     126.1,       0.0);
     ( 313431.5, 3995421.5,     126.1,     126.1,       0.0);          ( 313451.5,
3995421.5,     126.1,     126.1,       0.0);
     ( 313471.5, 3995421.5,     126.1,     126.1,       0.0);          ( 313491.5,
3995421.5,     126.2,     126.2,       0.0);
     ( 313511.5, 3995421.5,     126.2,     126.2,       0.0);          ( 313531.5,
3995421.5,     126.2,     126.2,       0.0);
     ( 313551.5, 3995421.5,     126.3,     126.3,       0.0);          ( 313571.5,
3995421.5,     126.3,     126.3,       0.0);
     ( 313591.5, 3995421.5,     126.3,     126.3,       0.0);          ( 313611.5,
3995421.5,     126.3,     126.3,       0.0);
     ( 313631.5, 3995421.5,     126.4,     126.4,       0.0);          ( 313651.5,
3995421.5,     126.4,     126.4,       0.0);
     ( 313671.5, 3995421.5,     126.4,     126.4,       0.0);          ( 313691.5,
3995421.5,     126.5,     126.5,       0.0);
     ( 313711.5, 3995421.5,     126.5,     126.5,       0.0);          ( 313731.5,
3995421.5,     126.5,     126.5,       0.0);
     ( 313751.5, 3995421.5,     126.5,     126.5,       0.0);          ( 313771.5,
3995421.5,     126.6,     126.6,       0.0);
     ( 313791.5, 3995421.5,     126.6,     126.6,       0.0);          ( 313811.5,
3995421.5,     126.6,     126.6,       0.0);
     ( 313831.5, 3995421.5,     126.6,     126.6,       0.0);          ( 313851.5,
3995421.5,     126.7,     126.7,       0.0);
     ( 313871.5, 3995421.5,     126.7,     126.7,       0.0);          ( 313891.5,
3995421.5,     126.7,     126.7,       0.0);
     ( 313911.5, 3995421.5,     126.7,     126.7,       0.0);          ( 313931.5,
3995421.5,     126.8,     126.8,       0.0);
     ( 313951.5, 3995421.5,     126.8,     126.8,       0.0);          ( 313971.5,
3995421.5,     126.8,     126.8,       0.0);
     ( 313991.5, 3995421.5,     126.8,     126.8,       0.0);          ( 314011.5,
3995421.5,     126.8,     126.8,       0.0);
     ( 314031.5, 3995421.5,     126.9,     126.9,       0.0);          ( 314051.5,
3995421.5,     126.9,     126.9,       0.0);
     ( 314071.5, 3995421.5,     126.9,     126.9,       0.0);          ( 314091.5,
3995421.5,     126.9,     126.9,       0.0);
     ( 314111.5, 3995421.5,     127.0,     127.0,       0.0);          ( 314131.5,
3995421.5,     127.0,     127.0,       0.0);
     ( 314151.5, 3995421.5,     127.0,     127.0,       0.0);          ( 314171.5,
3995421.5,     127.0,     127.0,       0.0);
     ( 314191.5, 3995421.5,     127.0,     127.0,       0.0);          ( 314211.5,
3995421.5,     127.1,     127.1,       0.0);
     ( 314231.5, 3995421.5,     127.1,     127.1,       0.0);          ( 314251.5,
3995421.5,     127.1,     127.1,       0.0);
     ( 314271.5, 3995421.5,     127.1,     127.1,       0.0);          ( 313271.5,
3995441.5,     125.8,     125.8,       0.0);
     ( 313291.5, 3995441.5,     125.9,     125.9,       0.0);          ( 313311.5,
3995441.5,     125.9,     125.9,       0.0);
     ( 313331.5, 3995441.5,     125.9,     125.9,       0.0);          ( 313351.5,
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3995441.5,     126.0,     126.0,       0.0);
     ( 313371.5, 3995441.5,     126.0,     126.0,       0.0);          ( 313391.5,
3995441.5,     126.0,     126.0,       0.0);
     ( 313411.5, 3995441.5,     126.0,     126.0,       0.0);          ( 313431.5,
3995441.5,     126.0,     126.0,       0.0);
     ( 313451.5, 3995441.5,     126.1,     126.1,       0.0);          ( 313471.5,
3995441.5,     126.1,     126.1,       0.0);
     ( 313491.5, 3995441.5,     126.1,     126.1,       0.0);          ( 313511.5,
3995441.5,     126.2,     126.2,       0.0);
     ( 313531.5, 3995441.5,     126.2,     126.2,       0.0);          ( 313551.5,
3995441.5,     126.2,     126.2,       0.0);
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                                                    *** DISCRETE CARTESIAN RECEPTORS ***
                                                  (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                  (METERS)

     ( 313571.5, 3995441.5,     126.2,     126.2,       0.0);          ( 313591.5,
3995441.5,     126.3,     126.3,       0.0);
     ( 313611.5, 3995441.5,     126.3,     126.3,       0.0);          ( 313631.5,
3995441.5,     126.3,     126.3,       0.0);
     ( 313651.5, 3995441.5,     126.4,     126.4,       0.0);          ( 313671.5,
3995441.5,     126.4,     126.4,       0.0);
     ( 313691.5, 3995441.5,     126.4,     126.4,       0.0);          ( 313711.5,
3995441.5,     126.4,     126.4,       0.0);
     ( 313731.5, 3995441.5,     126.5,     126.5,       0.0);          ( 313751.5,
3995441.5,     126.5,     126.5,       0.0);
     ( 313771.5, 3995441.5,     126.5,     126.5,       0.0);          ( 313791.5,
3995441.5,     126.5,     126.5,       0.0);
     ( 313811.5, 3995441.5,     126.6,     126.6,       0.0);          ( 313831.5,
3995441.5,     126.6,     126.6,       0.0);
     ( 313851.5, 3995441.5,     126.6,     126.6,       0.0);          ( 313871.5,
3995441.5,     126.6,     126.6,       0.0);
     ( 313891.5, 3995441.5,     126.7,     126.7,       0.0);          ( 313911.5,
3995441.5,     126.7,     126.7,       0.0);
     ( 313931.5, 3995441.5,     126.7,     126.7,       0.0);          ( 313951.5,
3995441.5,     126.7,     126.7,       0.0);
     ( 313971.5, 3995441.5,     126.8,     126.8,       0.0);          ( 313991.5,
3995441.5,     126.8,     126.8,       0.0);
     ( 314011.5, 3995441.5,     126.8,     126.8,       0.0);          ( 314031.5,
3995441.5,     126.8,     126.8,       0.0);
     ( 314051.5, 3995441.5,     126.8,     126.8,       0.0);          ( 314071.5,
3995441.5,     126.9,     126.9,       0.0);
     ( 314091.5, 3995441.5,     126.9,     126.9,       0.0);          ( 314111.5,
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3995441.5,     126.9,     126.9,       0.0);
     ( 314131.5, 3995441.5,     126.9,     126.9,       0.0);          ( 314151.5,
3995441.5,     127.0,     127.0,       0.0);
     ( 314171.5, 3995441.5,     127.0,     127.0,       0.0);          ( 314191.5,
3995441.5,     127.0,     127.0,       0.0);
     ( 314211.5, 3995441.5,     127.0,     127.0,       0.0);          ( 314231.5,
3995441.5,     127.1,     127.1,       0.0);
     ( 314251.5, 3995441.5,     127.1,     127.1,       0.0);          ( 314271.5,
3995441.5,     127.1,     127.1,       0.0);
     ( 313271.5, 3995461.5,     125.8,     125.8,       0.0);          ( 313291.5,
3995461.5,     125.8,     125.8,       0.0);
     ( 313311.5, 3995461.5,     125.9,     125.9,       0.0);          ( 313331.5,
3995461.5,     125.9,     125.9,       0.0);
     ( 313351.5, 3995461.5,     125.9,     125.9,       0.0);          ( 313371.5,
3995461.5,     125.9,     125.9,       0.0);
     ( 313391.5, 3995461.5,     126.0,     126.0,       0.0);          ( 313411.5,
3995461.5,     126.0,     126.0,       0.0);
     ( 313431.5, 3995461.5,     126.0,     126.0,       0.0);          ( 313451.5,
3995461.5,     126.0,     126.0,       0.0);
     ( 313471.5, 3995461.5,     126.1,     126.1,       0.0);          ( 313491.5,
3995461.5,     126.1,     126.1,       0.0);
     ( 313511.5, 3995461.5,     126.1,     126.1,       0.0);          ( 313531.5,
3995461.5,     126.1,     126.1,       0.0);
     ( 313551.5, 3995461.5,     126.2,     126.2,       0.0);          ( 313571.5,
3995461.5,     126.2,     126.2,       0.0);
     ( 313591.5, 3995461.5,     126.2,     126.2,       0.0);          ( 313611.5,
3995461.5,     126.3,     126.3,       0.0);
     ( 313631.5, 3995461.5,     126.3,     126.3,       0.0);          ( 313651.5,
3995461.5,     126.3,     126.3,       0.0);
     ( 313671.5, 3995461.5,     126.3,     126.3,       0.0);          ( 313691.5,
3995461.5,     126.4,     126.4,       0.0);
     ( 313711.5, 3995461.5,     126.4,     126.4,       0.0);          ( 313731.5,
3995461.5,     126.4,     126.4,       0.0);
     ( 313751.5, 3995461.5,     126.5,     126.5,       0.0);          ( 313771.5,
3995461.5,     126.5,     126.5,       0.0);
     ( 313791.5, 3995461.5,     126.5,     126.5,       0.0);          ( 313811.5,
3995461.5,     126.5,     126.5,       0.0);
     ( 313831.5, 3995461.5,     126.6,     126.6,       0.0);          ( 313851.5,
3995461.5,     126.6,     126.6,       0.0);
     ( 313871.5, 3995461.5,     126.6,     126.6,       0.0);          ( 313891.5,
3995461.5,     126.6,     126.6,       0.0);
     ( 313911.5, 3995461.5,     126.6,     126.6,       0.0);          ( 313931.5,
3995461.5,     126.7,     126.7,       0.0);
     ( 313951.5, 3995461.5,     126.7,     126.7,       0.0);          ( 313971.5,
3995461.5,     126.7,     126.7,       0.0);
     ( 313991.5, 3995461.5,     126.7,     126.7,       0.0);          ( 314011.5,
3995461.5,     126.8,     126.8,       0.0);
     ( 314031.5, 3995461.5,     126.8,     126.8,       0.0);          ( 314051.5,
3995461.5,     126.8,     126.8,       0.0);
     ( 314071.5, 3995461.5,     126.8,     126.8,       0.0);          ( 314091.5,
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3995461.5,     126.9,     126.9,       0.0);
     ( 314111.5, 3995461.5,     126.9,     126.9,       0.0);         ( 314131.5,
3995461.5,     126.9,     126.9,       0.0);
     ( 314151.5, 3995461.5,     126.9,     126.9,       0.0);         ( 314171.5,
3995461.5,     127.0,     127.0,       0.0);
     ( 314191.5, 3995461.5,     127.0,     127.0,       0.0);         ( 314211.5,
3995461.5,     127.0,     127.0,       0.0);
     ( 314231.5, 3995461.5,     127.0,     127.0,       0.0);         ( 314251.5,
3995461.5,     127.1,     127.1,       0.0);
     ( 314271.5, 3995461.5,     127.1,     127.1,       0.0);         ( 313271.5,
3995481.5,     125.8,     125.8,       0.0);
     ( 313291.5, 3995481.5,     125.8,     125.8,       0.0);         ( 313311.5,
3995481.5,     125.8,     125.8,       0.0);
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                                                     *** DISCRETE CARTESIAN RECEPTORS ***
                                                   (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                   (METERS)

     ( 313331.5, 3995481.5,     125.8,     125.8,       0.0);         ( 313351.5,
3995481.5,     125.9,     125.9,       0.0);
     ( 313371.5, 3995481.5,     125.9,     125.9,       0.0);         ( 313391.5,
3995481.5,     125.9,     125.9,       0.0);
     ( 313411.5, 3995481.5,     126.0,     126.0,       0.0);         ( 313431.5,
3995481.5,     126.0,     126.0,       0.0);
     ( 313451.5, 3995481.5,     126.0,     126.0,       0.0);         ( 313471.5,
3995481.5,     126.0,     126.0,       0.0);
     ( 313491.5, 3995481.5,     126.1,     126.1,       0.0);         ( 313511.5,
3995481.5,     126.1,     126.1,       0.0);
     ( 313531.5, 3995481.5,     126.1,     126.1,       0.0);         ( 313551.5,
3995481.5,     126.1,     126.1,       0.0);
     ( 313571.5, 3995481.5,     126.2,     126.2,       0.0);         ( 313591.5,
3995481.5,     126.2,     126.2,       0.0);
     ( 313611.5, 3995481.5,     126.2,     126.2,       0.0);         ( 313631.5,
3995481.5,     126.3,     126.3,       0.0);
     ( 313651.5, 3995481.5,     126.3,     126.3,       0.0);         ( 313671.5,
3995481.5,     126.3,     126.3,       0.0);
     ( 313691.5, 3995481.5,     126.3,     126.3,       0.0);         ( 313711.5,
3995481.5,     126.3,     126.3,       0.0);
     ( 313731.5, 3995481.5,     126.4,     126.4,       0.0);         ( 313751.5,
3995481.5,     126.4,     126.4,       0.0);
     ( 313771.5, 3995481.5,     126.4,     126.4,       0.0);         ( 313791.5,
3995481.5,     126.5,     126.5,       0.0);
     ( 313811.5, 3995481.5,     126.5,     126.5,       0.0);         ( 313831.5,
```

3995481.5,   126.5,   126.5,   0.0);
     (313851.5, 3995481.5,   126.5,   126.5,   0.0);   (313871.5,
3995481.5,   126.6,   126.6,   0.0);
     (313891.5, 3995481.5,   126.6,   126.6,   0.0);   (313911.5,
3995481.5,   126.6,   126.6,   0.0);
     (313931.5, 3995481.5,   126.6,   126.6,   0.0);   (313951.5,
3995481.5,   126.6,   126.6,   0.0);
     (313971.5, 3995481.5,   126.7,   126.7,   0.0);   (313991.5,
3995481.5,   126.7,   126.7,   0.0);
     (314011.5, 3995481.5,   126.7,   126.7,   0.0);   (314031.5,
3995481.5,   126.8,   126.8,   0.0);
     (314051.5, 3995481.5,   126.8,   126.8,   0.0);   (314071.5,
3995481.5,   126.8,   126.8,   0.0);
     (314091.5, 3995481.5,   126.8,   126.8,   0.0);   (314111.5,
3995481.5,   126.8,   126.8,   0.0);
     (314131.5, 3995481.5,   126.9,   126.9,   0.0);   (314151.5,
3995481.5,   126.9,   126.9,   0.0);
     (314171.5, 3995481.5,   126.9,   126.9,   0.0);   (314191.5,
3995481.5,   126.9,   126.9,   0.0);
     (314211.5, 3995481.5,   127.0,   127.0,   0.0);   (314231.5,
3995481.5,   127.0,   127.0,   0.0);
     (314251.5, 3995481.5,   127.0,   127.0,   0.0);   (314271.5,
3995481.5,   127.1,   127.1,   0.0);
     (313271.5, 3995501.5,   125.8,   125.8,   0.0);   (313291.5,
3995501.5,   125.8,   125.8,   0.0);
     (313311.5, 3995501.5,   125.8,   125.8,   0.0);   (313331.5,
3995501.5,   125.8,   125.8,   0.0);
     (313351.5, 3995501.5,   125.8,   125.8,   0.0);   (313371.5,
3995501.5,   125.9,   125.9,   0.0);
     (313391.5, 3995501.5,   125.9,   125.9,   0.0);   (313411.5,
3995501.5,   125.9,   125.9,   0.0);
     (313431.5, 3995501.5,   126.0,   126.0,   0.0);   (313451.5,
3995501.5,   126.0,   126.0,   0.0);
     (313471.5, 3995501.5,   126.0,   126.0,   0.0);   (313491.5,
3995501.5,   126.0,   126.0,   0.0);
     (313511.5, 3995501.5,   126.0,   126.0,   0.0);   (313531.5,
3995501.5,   126.1,   126.1,   0.0);
     (313551.5, 3995501.5,   126.1,   126.1,   0.0);   (313571.5,
3995501.5,   126.1,   126.1,   0.0);
     (313591.5, 3995501.5,   126.2,   126.2,   0.0);   (313611.5,
3995501.5,   126.2,   126.2,   0.0);
     (313631.5, 3995501.5,   126.2,   126.2,   0.0);   (313651.5,
3995501.5,   126.2,   126.2,   0.0);
     (313671.5, 3995501.5,   126.3,   126.3,   0.0);   (313691.5,
3995501.5,   126.3,   126.3,   0.0);
     (313711.5, 3995501.5,   126.3,   126.3,   0.0);   (313731.5,
3995501.5,   126.3,   126.3,   0.0);
     (313751.5, 3995501.5,   126.4,   126.4,   0.0);   (313771.5,
3995501.5,   126.4,   126.4,   0.0);
     (313791.5, 3995501.5,   126.4,   126.4,   0.0);   (313811.5,

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3995501.5,     126.5,     126.5,       0.0);
     ( 313831.5, 3995501.5,     126.5,     126.5,       0.0);         ( 313851.5,
3995501.5,     126.5,     126.5,       0.0);
     ( 313871.5, 3995501.5,     126.5,     126.5,       0.0);         ( 313891.5,
3995501.5,     126.5,     126.5,       0.0);
     ( 313911.5, 3995501.5,     126.6,     126.6,       0.0);         ( 313931.5,
3995501.5,     126.6,     126.6,       0.0);
     ( 313951.5, 3995501.5,     126.6,     126.6,       0.0);         ( 313971.5,
3995501.5,     126.6,     126.6,       0.0);
     ( 313991.5, 3995501.5,     126.7,     126.7,       0.0);         ( 314011.5,
3995501.5,     126.7,     126.7,       0.0);
     ( 314031.5, 3995501.5,     126.7,     126.7,       0.0);         ( 314051.5,
3995501.5,     126.7,     126.7,       0.0);
     ( 314071.5, 3995501.5,     126.8,     126.8,       0.0);         ( 314091.5,
3995501.5,     126.8,     126.8,       0.0);
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                                                     *** DISCRETE CARTESIAN RECEPTORS ***
                                                   (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                   (METERS)

     ( 314111.5, 3995501.5,     126.8,     126.8,       0.0);         ( 314131.5,
3995501.5,     126.8,     126.8,       0.0);
     ( 314151.5, 3995501.5,     126.9,     126.9,       0.0);         ( 314171.5,
3995501.5,     126.9,     126.9,       0.0);
     ( 314191.5, 3995501.5,     126.9,     126.9,       0.0);         ( 314211.5,
3995501.5,     127.0,     127.0,       0.0);
     ( 314231.5, 3995501.5,     127.0,     127.0,       0.0);         ( 314251.5,
3995501.5,     127.0,     127.0,       0.0);
     ( 314271.5, 3995501.5,     127.0,     127.0,       0.0);         ( 313271.5,
3995521.5,     125.7,     125.7,       0.0);
     ( 313291.5, 3995521.5,     125.7,     125.7,       0.0);         ( 313311.5,
3995521.5,     125.8,     125.8,       0.0);
     ( 313331.5, 3995521.5,     125.8,     125.8,       0.0);         ( 313351.5,
3995521.5,     125.8,     125.8,       0.0);
     ( 313371.5, 3995521.5,     125.8,     125.8,       0.0);         ( 313391.5,
3995521.5,     125.9,     125.9,       0.0);
     ( 313411.5, 3995521.5,     125.9,     125.9,       0.0);         ( 313431.5,
3995521.5,     125.9,     125.9,       0.0);
     ( 313451.5, 3995521.5,     125.9,     125.9,       0.0);         ( 313471.5,
3995521.5,     126.0,     126.0,       0.0);
     ( 313491.5, 3995521.5,     126.0,     126.0,       0.0);         ( 313511.5,
3995521.5,     126.0,     126.0,       0.0);
     ( 313531.5, 3995521.5,     126.0,     126.0,       0.0);         ( 313551.5,
```

3995521.5,   126.1,   126.1,   0.0);
     (313571.5, 3995521.5,   126.1,   126.1,   0.0);   (313591.5,
3995521.5,   126.1,   126.1,   0.0);
     (313611.5, 3995521.5,   126.2,   126.2,   0.0);   (313631.5,
3995521.5,   126.2,   126.2,   0.0);
     (313651.5, 3995521.5,   126.2,   126.2,   0.0);   (313671.5,
3995521.5,   126.2,   126.2,   0.0);
     (313691.5, 3995521.5,   126.2,   126.2,   0.0);   (313711.5,
3995521.5,   126.3,   126.3,   0.0);
     (313731.5, 3995521.5,   126.3,   126.3,   0.0);   (313751.5,
3995521.5,   126.3,   126.3,   0.0);
     (313771.5, 3995521.5,   126.3,   126.3,   0.0);   (313791.5,
3995521.5,   126.4,   126.4,   0.0);
     (313811.5, 3995521.5,   126.4,   126.4,   0.0);   (313831.5,
3995521.5,   126.4,   126.4,   0.0);
     (313851.5, 3995521.5,   126.5,   126.5,   0.0);   (313871.5,
3995521.5,   126.5,   126.5,   0.0);
     (313891.5, 3995521.5,   126.5,   126.5,   0.0);   (313911.5,
3995521.5,   126.5,   126.5,   0.0);
     (313931.5, 3995521.5,   126.5,   126.5,   0.0);   (313951.5,
3995521.5,   126.6,   126.6,   0.0);
     (313971.5, 3995521.5,   126.6,   126.6,   0.0);   (313991.5,
3995521.5,   126.6,   126.6,   0.0);
     (314011.5, 3995521.5,   126.6,   126.6,   0.0);   (314031.5,
3995521.5,   126.7,   126.7,   0.0);
     (314051.5, 3995521.5,   126.7,   126.7,   0.0);   (314071.5,
3995521.5,   126.7,   126.7,   0.0);
     (314091.5, 3995521.5,   126.8,   126.8,   0.0);   (314111.5,
3995521.5,   126.8,   126.8,   0.0);
     (314131.5, 3995521.5,   126.8,   126.8,   0.0);   (314151.5,
3995521.5,   126.8,   126.8,   0.0);
     (314171.5, 3995521.5,   126.9,   126.9,   0.0);   (314191.5,
3995521.5,   126.9,   126.9,   0.0);
     (314211.5, 3995521.5,   126.9,   126.9,   0.0);   (314231.5,
3995521.5,   127.0,   127.0,   0.0);
     (314251.5, 3995521.5,   127.0,   127.0,   0.0);   (314271.5,
3995521.5,   127.0,   127.0,   0.0);
     (313271.5, 3995541.5,   125.7,   125.7,   0.0);   (313291.5,
3995541.5,   125.7,   125.7,   0.0);
     (313311.5, 3995541.5,   125.7,   125.7,   0.0);   (313331.5,
3995541.5,   125.8,   125.8,   0.0);
     (313351.5, 3995541.5,   125.8,   125.8,   0.0);   (313371.5,
3995541.5,   125.8,   125.8,   0.0);
     (313391.5, 3995541.5,   125.8,   125.8,   0.0);   (313411.5,
3995541.5,   125.8,   125.8,   0.0);
     (313431.5, 3995541.5,   125.9,   125.9,   0.0);   (313451.5,
3995541.5,   125.9,   125.9,   0.0);
     (313471.5, 3995541.5,   125.9,   125.9,   0.0);   (313491.5,
3995541.5,   126.0,   126.0,   0.0);
     (313511.5, 3995541.5,   126.0,   126.0,   0.0);   (313531.5,

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3995541.5,     126.0,     126.0,       0.0);
     ( 313551.5, 3995541.5,     126.0,     126.0,       0.0);         ( 313571.5,
3995541.5,     126.1,     126.1,       0.0);
     ( 313591.5, 3995541.5,     126.1,     126.1,       0.0);         ( 313611.5,
3995541.5,     126.1,     126.1,       0.0);
     ( 313631.5, 3995541.5,     126.1,     126.1,       0.0);         ( 313651.5,
3995541.5,     126.2,     126.2,       0.0);
     ( 313671.5, 3995541.5,     126.2,     126.2,       0.0);         ( 313691.5,
3995541.5,     126.2,     126.2,       0.0);
     ( 313711.5, 3995541.5,     126.2,     126.2,       0.0);         ( 313731.5,
3995541.5,     126.3,     126.3,       0.0);
     ( 313751.5, 3995541.5,     126.3,     126.3,       0.0);         ( 313771.5,
3995541.5,     126.3,     126.3,       0.0);
     ( 313791.5, 3995541.5,     126.3,     126.3,       0.0);         ( 313811.5,
3995541.5,     126.3,     126.3,       0.0);
     ( 313831.5, 3995541.5,     126.4,     126.4,       0.0);         ( 313851.5,
3995541.5,     126.4,     126.4,       0.0);
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                                                       *** DISCRETE CARTESIAN RECEPTORS ***
                                                     (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                     (METERS)

     ( 313871.5, 3995541.5,     126.4,     126.4,       0.0);         ( 313891.5,
3995541.5,     126.4,     126.4,       0.0);
     ( 313911.5, 3995541.5,     126.5,     126.5,       0.0);         ( 313931.5,
3995541.5,     126.5,     126.5,       0.0);
     ( 313951.5, 3995541.5,     126.5,     126.5,       0.0);         ( 313971.5,
3995541.5,     126.5,     126.5,       0.0);
     ( 313991.5, 3995541.5,     126.6,     126.6,       0.0);         ( 314011.5,
3995541.5,     126.6,     126.6,       0.0);
     ( 314031.5, 3995541.5,     126.6,     126.6,       0.0);         ( 314051.5,
3995541.5,     126.7,     126.7,       0.0);
     ( 314071.5, 3995541.5,     126.7,     126.7,       0.0);         ( 314091.5,
3995541.5,     126.7,     126.7,       0.0);
     ( 314111.5, 3995541.5,     126.8,     126.8,       0.0);         ( 314131.5,
3995541.5,     126.8,     126.8,       0.0);
     ( 314151.5, 3995541.5,     126.8,     126.8,       0.0);         ( 314171.5,
3995541.5,     126.8,     126.8,       0.0);
     ( 314191.5, 3995541.5,     126.9,     126.9,       0.0);         ( 314211.5,
3995541.5,     126.9,     126.9,       0.0);
     ( 314231.5, 3995541.5,     126.9,     126.9,       0.0);         ( 314251.5,
3995541.5,     127.0,     127.0,       0.0);
     ( 314271.5, 3995541.5,     127.0,     127.0,       0.0);         ( 313271.5,
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3995561.5,     125.7,     125.7,       0.0);
     ( 313291.5, 3995561.5,     125.7,     125.7,       0.0);          ( 313311.5,
3995561.5,     125.7,     125.7,       0.0);
     ( 313331.5, 3995561.5,     125.7,     125.7,       0.0);          ( 313351.5,
3995561.5,     125.8,     125.8,       0.0);
     ( 313371.5, 3995561.5,     125.8,     125.8,       0.0);          ( 313391.5,
3995561.5,     125.8,     125.8,       0.0);
     ( 313411.5, 3995561.5,     125.8,     125.8,       0.0);          ( 313431.5,
3995561.5,     125.8,     125.8,       0.0);
     ( 313451.5, 3995561.5,     125.9,     125.9,       0.0);          ( 313471.5,
3995561.5,     125.9,     125.9,       0.0);
     ( 313491.5, 3995561.5,     125.9,     125.9,       0.0);          ( 313511.5,
3995561.5,     126.0,     126.0,       0.0);
     ( 313531.5, 3995561.5,     126.0,     126.0,       0.0);          ( 313551.5,
3995561.5,     126.0,     126.0,       0.0);
     ( 313571.5, 3995561.5,     126.0,     126.0,       0.0);          ( 313591.5,
3995561.5,     126.1,     126.1,       0.0);
     ( 313611.5, 3995561.5,     126.1,     126.1,       0.0);          ( 313631.5,
3995561.5,     126.1,     126.1,       0.0);
     ( 313651.5, 3995561.5,     126.1,     126.1,       0.0);          ( 313671.5,
3995561.5,     126.1,     126.1,       0.0);
     ( 313691.5, 3995561.5,     126.2,     126.2,       0.0);          ( 313711.5,
3995561.5,     126.2,     126.2,       0.0);
     ( 313731.5, 3995561.5,     126.2,     126.2,       0.0);          ( 313751.5,
3995561.5,     126.2,     126.2,       0.0);
     ( 313771.5, 3995561.5,     126.2,     126.2,       0.0);          ( 313791.5,
3995561.5,     126.3,     126.3,       0.0);
     ( 313811.5, 3995561.5,     126.3,     126.3,       0.0);          ( 313831.5,
3995561.5,     126.3,     126.3,       0.0);
     ( 313851.5, 3995561.5,     126.3,     126.3,       0.0);          ( 313871.5,
3995561.5,     126.4,     126.4,       0.0);
     ( 313891.5, 3995561.5,     126.4,     126.4,       0.0);          ( 313911.5,
3995561.5,     126.4,     126.4,       0.0);
     ( 313931.5, 3995561.5,     126.4,     126.4,       0.0);          ( 313951.5,
3995561.5,     126.5,     126.5,       0.0);
     ( 313971.5, 3995561.5,     126.5,     126.5,       0.0);          ( 313991.5,
3995561.5,     126.5,     126.5,       0.0);
     ( 314011.5, 3995561.5,     126.6,     126.6,       0.0);          ( 314031.5,
3995561.5,     126.6,     126.6,       0.0);
     ( 314051.5, 3995561.5,     126.6,     126.6,       0.0);          ( 314071.5,
3995561.5,     126.6,     126.6,       0.0);
     ( 314091.5, 3995561.5,     126.7,     126.7,       0.0);          ( 314111.5,
3995561.5,     126.7,     126.7,       0.0);
     ( 314131.5, 3995561.5,     126.7,     126.7,       0.0);          ( 314151.5,
3995561.5,     126.8,     126.8,       0.0);
     ( 314171.5, 3995561.5,     126.8,     126.8,       0.0);          ( 314191.5,
3995561.5,     126.8,     126.8,       0.0);
     ( 314211.5, 3995561.5,     126.8,     126.8,       0.0);          ( 314231.5,
3995561.5,     126.9,     126.9,       0.0);
     ( 314251.5, 3995561.5,     126.9,     126.9,       0.0);          ( 314271.5,
```

3995561.5,   127.0,   127.0,   0.0);
     (313271.5, 3995581.5,   125.6,   125.6,   0.0);   (313291.5,
3995581.5,   125.7,   125.7,   0.0);
     (313311.5, 3995581.5,   125.7,   125.7,   0.0);   (313331.5,
3995581.5,   125.7,   125.7,   0.0);
     (313351.5, 3995581.5,   125.7,   125.7,   0.0);   (313371.5,
3995581.5,   125.8,   125.8,   0.0);
     (313391.5, 3995581.5,   125.8,   125.8,   0.0);   (313411.5,
3995581.5,   125.8,   125.8,   0.0);
     (313431.5, 3995581.5,   125.8,   125.8,   0.0);   (313451.5,
3995581.5,   125.8,   125.8,   0.0);
     (313471.5, 3995581.5,   125.9,   125.9,   0.0);   (313491.5,
3995581.5,   125.9,   125.9,   0.0);
     (313511.5, 3995581.5,   125.9,   125.9,   0.0);   (313531.5,
3995581.5,   126.0,   126.0,   0.0);
     (313551.5, 3995581.5,   126.0,   126.0,   0.0);   (313571.5,
3995581.5,   126.0,   126.0,   0.0);
     (313591.5, 3995581.5,   126.0,   126.0,   0.0);   (313611.5,
3995581.5,   126.0,   126.0,   0.0);

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

     (313631.5, 3995581.5,   126.1,   126.1,   0.0);   (313651.5,
3995581.5,   126.1,   126.1,   0.0);
     (313671.5, 3995581.5,   126.1,   126.1,   0.0);   (313691.5,
3995581.5,   126.1,   126.1,   0.0);
     (313711.5, 3995581.5,   126.1,   126.1,   0.0);   (313731.5,
3995581.5,   126.2,   126.2,   0.0);
     (313751.5, 3995581.5,   126.2,   126.2,   0.0);   (313771.5,
3995581.5,   126.2,   126.2,   0.0);
     (313791.5, 3995581.5,   126.2,   126.2,   0.0);   (313811.5,
3995581.5,   126.2,   126.2,   0.0);
     (313831.5, 3995581.5,   126.3,   126.3,   0.0);   (313851.5,
3995581.5,   126.3,   126.3,   0.0);
     (313871.5, 3995581.5,   126.3,   126.3,   0.0);   (313891.5,
3995581.5,   126.3,   126.3,   0.0);
     (313911.5, 3995581.5,   126.4,   126.4,   0.0);   (313931.5,
3995581.5,   126.4,   126.4,   0.0);
     (313951.5, 3995581.5,   126.4,   126.4,   0.0);   (313971.5,
3995581.5,   126.4,   126.4,   0.0);
     (313991.5, 3995581.5,   126.5,   126.5,   0.0);   (314011.5,

```
3995581.5,      126.5,      126.5,        0.0);
     ( 314031.5, 3995581.5,      126.5,      126.5,        0.0);          ( 314051.5,
3995581.5,      126.6,      126.6,        0.0);
     ( 314071.5, 3995581.5,      126.6,      126.6,        0.0);          ( 314091.5,
3995581.5,      126.6,      126.6,        0.0);
     ( 314111.5, 3995581.5,      126.7,      126.7,        0.0);          ( 314131.5,
3995581.5,      126.7,      126.7,        0.0);
     ( 314151.5, 3995581.5,      126.7,      126.7,        0.0);          ( 314171.5,
3995581.5,      126.8,      126.8,        0.0);
     ( 314191.5, 3995581.5,      126.8,      126.8,        0.0);          ( 314211.5,
3995581.5,      126.8,      126.8,        0.0);
     ( 314231.5, 3995581.5,      126.9,      126.9,        0.0);          ( 314251.5,
3995581.5,      126.9,      126.9,        0.0);
     ( 314271.5, 3995581.5,      126.9,      126.9,        0.0);          ( 313271.5,
3995601.5,      125.6,      125.6,        0.0);
     ( 313291.5, 3995601.5,      125.6,      125.6,        0.0);          ( 313311.5,
3995601.5,      125.7,      125.7,        0.0);
     ( 313331.5, 3995601.5,      125.7,      125.7,        0.0);          ( 313351.5,
3995601.5,      125.7,      125.7,        0.0);
     ( 313371.5, 3995601.5,      125.7,      125.7,        0.0);          ( 313391.5,
3995601.5,      125.8,      125.8,        0.0);
     ( 313411.5, 3995601.5,      125.8,      125.8,        0.0);          ( 313431.5,
3995601.5,      125.8,      125.8,        0.0);
     ( 313451.5, 3995601.5,      125.8,      125.8,        0.0);          ( 313471.5,
3995601.5,      125.8,      125.8,        0.0);
     ( 313491.5, 3995601.5,      125.9,      125.9,        0.0);          ( 313511.5,
3995601.5,      125.9,      125.9,        0.0);
     ( 313531.5, 3995601.5,      125.9,      125.9,        0.0);          ( 313551.5,
3995601.5,      125.9,      125.9,        0.0);
     ( 313571.5, 3995601.5,      126.0,      126.0,        0.0);          ( 313591.5,
3995601.5,      126.0,      126.0,        0.0);
     ( 313611.5, 3995601.5,      126.0,      126.0,        0.0);          ( 313631.5,
3995601.5,      126.0,      126.0,        0.0);
     ( 313651.5, 3995601.5,      126.0,      126.0,        0.0);          ( 313671.5,
3995601.5,      126.1,      126.1,        0.0);
     ( 313691.5, 3995601.5,      126.1,      126.1,        0.0);          ( 313711.5,
3995601.5,      126.1,      126.1,        0.0);
     ( 313731.5, 3995601.5,      126.1,      126.1,        0.0);          ( 313751.5,
3995601.5,      126.1,      126.1,        0.0);
     ( 313771.5, 3995601.5,      126.2,      126.2,        0.0);          ( 313791.5,
3995601.5,      126.2,      126.2,        0.0);
     ( 313811.5, 3995601.5,      126.2,      126.2,        0.0);          ( 313831.5,
3995601.5,      126.2,      126.2,        0.0);
     ( 313851.5, 3995601.5,      126.2,      126.2,        0.0);          ( 313871.5,
3995601.5,      126.3,      126.3,        0.0);
     ( 313891.5, 3995601.5,      126.3,      126.3,        0.0);          ( 313911.5,
3995601.5,      126.3,      126.3,        0.0);
     ( 313931.5, 3995601.5,      126.3,      126.3,        0.0);          ( 313951.5,
3995601.5,      126.4,      126.4,        0.0);
     ( 313971.5, 3995601.5,      126.4,      126.4,        0.0);          ( 313991.5,
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3995601.5,     126.4,     126.4,       0.0);
     ( 314011.5, 3995601.5,     126.5,     126.5,       0.0);          ( 314031.5,
3995601.5,     126.5,     126.5,       0.0);
     ( 314051.5, 3995601.5,     126.5,     126.5,       0.0);          ( 314071.5,
3995601.5,     126.6,     126.6,       0.0);
     ( 314091.5, 3995601.5,     126.6,     126.6,       0.0);          ( 314111.5,
3995601.5,     126.6,     126.6,       0.0);
     ( 314131.5, 3995601.5,     126.7,     126.7,       0.0);          ( 314151.5,
3995601.5,     126.7,     126.7,       0.0);
     ( 314171.5, 3995601.5,     126.7,     126.7,       0.0);          ( 314191.5,
3995601.5,     126.8,     126.8,       0.0);
     ( 314211.5, 3995601.5,     126.8,     126.8,       0.0);          ( 314231.5,
3995601.5,     126.8,     126.8,       0.0);
     ( 314251.5, 3995601.5,     126.9,     126.9,       0.0);          ( 314271.5,
3995601.5,     126.9,     126.9,       0.0);
     ( 313271.5, 3995621.5,     125.6,     125.6,       0.0);          ( 313291.5,
3995621.5,     125.6,     125.6,       0.0);
     ( 313311.5, 3995621.5,     125.6,     125.6,       0.0);          ( 313331.5,
3995621.5,     125.7,     125.7,       0.0);
     ( 313351.5, 3995621.5,     125.7,     125.7,       0.0);          ( 313371.5,
3995621.5,     125.7,     125.7,       0.0);
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                                        *** DISCRETE CARTESIAN RECEPTORS ***
                                      (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                      (METERS)

     ( 313391.5, 3995621.5,     125.7,     125.7,       0.0);          ( 313411.5,
3995621.5,     125.8,     125.8,       0.0);
     ( 313431.5, 3995621.5,     125.8,     125.8,       0.0);          ( 313451.5,
3995621.5,     125.8,     125.8,       0.0);
     ( 313471.5, 3995621.5,     125.8,     125.8,       0.0);          ( 313491.5,
3995621.5,     125.8,     125.8,       0.0);
     ( 313511.5, 3995621.5,     125.9,     125.9,       0.0);          ( 313531.5,
3995621.5,     125.9,     125.9,       0.0);
     ( 313551.5, 3995621.5,     125.9,     125.9,       0.0);          ( 313571.5,
3995621.5,     125.9,     125.9,       0.0);
     ( 313591.5, 3995621.5,     126.0,     126.0,       0.0);          ( 313611.5,
3995621.5,     126.0,     126.0,       0.0);
     ( 313631.5, 3995621.5,     126.0,     126.0,       0.0);          ( 313651.5,
3995621.5,     126.0,     126.0,       0.0);
     ( 313671.5, 3995621.5,     126.0,     126.0,       0.0);          ( 313691.5,
3995621.5,     126.0,     126.0,       0.0);
     ( 313711.5, 3995621.5,     126.1,     126.1,       0.0);          ( 313731.5,
```

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3995621.5,     126.1,     126.1,       0.0);
     ( 313751.5, 3995621.5,     126.1,     126.1,       0.0);          ( 313771.5,
3995621.5,     126.1,     126.1,       0.0);
     ( 313791.5, 3995621.5,     126.1,     126.1,       0.0);          ( 313811.5,
3995621.5,     126.1,     126.1,       0.0);
     ( 313831.5, 3995621.5,     126.2,     126.2,       0.0);          ( 313851.5,
3995621.5,     126.2,     126.2,       0.0);
     ( 313871.5, 3995621.5,     126.2,     126.2,       0.0);          ( 313891.5,
3995621.5,     126.2,     126.2,       0.0);
     ( 313911.5, 3995621.5,     126.3,     126.3,       0.0);          ( 313931.5,
3995621.5,     126.3,     126.3,       0.0);
     ( 313951.5, 3995621.5,     126.3,     126.3,       0.0);          ( 313971.5,
3995621.5,     126.3,     126.3,       0.0);
     ( 313991.5, 3995621.5,     126.4,     126.4,       0.0);          ( 314011.5,
3995621.5,     126.4,     126.4,       0.0);
     ( 314031.5, 3995621.5,     126.5,     126.5,       0.0);          ( 314051.5,
3995621.5,     126.5,     126.5,       0.0);
     ( 314071.5, 3995621.5,     126.5,     126.5,       0.0);          ( 314091.5,
3995621.5,     126.5,     126.5,       0.0);
     ( 314111.5, 3995621.5,     126.6,     126.6,       0.0);          ( 314131.5,
3995621.5,     126.6,     126.6,       0.0);
     ( 314151.5, 3995621.5,     126.7,     126.7,       0.0);          ( 314171.5,
3995621.5,     126.7,     126.7,       0.0);
     ( 314191.5, 3995621.5,     126.7,     126.7,       0.0);          ( 314211.5,
3995621.5,     126.8,     126.8,       0.0);
     ( 314231.5, 3995621.5,     126.8,     126.8,       0.0);          ( 314251.5,
3995621.5,     126.8,     126.8,       0.0);
     ( 314271.5, 3995621.5,     126.9,     126.9,       0.0);          ( 313271.5,
3995641.5,     125.6,     125.6,       0.0);
     ( 313291.5, 3995641.5,     125.6,     125.6,       0.0);          ( 313311.5,
3995641.5,     125.6,     125.6,       0.0);
     ( 313331.5, 3995641.5,     125.6,     125.6,       0.0);          ( 313351.5,
3995641.5,     125.7,     125.7,       0.0);
     ( 313371.5, 3995641.5,     125.7,     125.7,       0.0);          ( 313391.5,
3995641.5,     125.7,     125.7,       0.0);
     ( 313411.5, 3995641.5,     125.7,     125.7,       0.0);          ( 313431.5,
3995641.5,     125.8,     125.8,       0.0);
     ( 313451.5, 3995641.5,     125.8,     125.8,       0.0);          ( 313471.5,
3995641.5,     125.8,     125.8,       0.0);
     ( 313491.5, 3995641.5,     125.8,     125.8,       0.0);          ( 313511.5,
3995641.5,     125.8,     125.8,       0.0);
     ( 313531.5, 3995641.5,     125.9,     125.9,       0.0);          ( 313551.5,
3995641.5,     125.9,     125.9,       0.0);
     ( 313571.5, 3995641.5,     125.9,     125.9,       0.0);          ( 313591.5,
3995641.5,     125.9,     125.9,       0.0);
     ( 313611.5, 3995641.5,     125.9,     125.9,       0.0);          ( 313631.5,
3995641.5,     126.0,     126.0,       0.0);
     ( 313651.5, 3995641.5,     126.0,     126.0,       0.0);          ( 313671.5,
3995641.5,     126.0,     126.0,       0.0);
     ( 313691.5, 3995641.5,     126.0,     126.0,       0.0);          ( 313711.5,
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3995641.5,   126.0,   126.0,   0.0);
(313731.5, 3995641.5,   126.1,   126.1,   0.0);   (313751.5,
3995641.5,   126.1,   126.1,   0.0);
(313771.5, 3995641.5,   126.1,   126.1,   0.0);   (313791.5,
3995641.5,   126.1,   126.1,   0.0);
(313811.5, 3995641.5,   126.1,   126.1,   0.0);   (313971.5,
3995641.5,   126.3,   126.3,   0.0);
(313991.5, 3995641.5,   126.3,   126.3,   0.0);   (314011.5,
3995641.5,   126.4,   126.4,   0.0);
(314031.5, 3995641.5,   126.4,   126.4,   0.0);   (314051.5,
3995641.5,   126.4,   126.4,   0.0);
(314071.5, 3995641.5,   126.5,   126.5,   0.0);   (314091.5,
3995641.5,   126.5,   126.5,   0.0);
(314111.5, 3995641.5,   126.5,   126.5,   0.0);   (314131.5,
3995641.5,   126.6,   126.6,   0.0);
(314151.5, 3995641.5,   126.6,   126.6,   0.0);   (314171.5,
3995641.5,   126.7,   126.7,   0.0);
(314191.5, 3995641.5,   126.7,   126.7,   0.0);   (314211.5,
3995641.5,   126.7,   126.7,   0.0);
(314231.5, 3995641.5,   126.8,   126.8,   0.0);   (314251.5,
3995641.5,   126.8,   126.8,   0.0);
(314271.5, 3995641.5,   126.8,   126.8,   0.0);   (313271.5,
3995661.5,   125.5,   125.5,   0.0);

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(313291.5, 3995661.5,   125.6,   125.6,   0.0);   (313311.5,
3995661.5,   125.6,   125.6,   0.0);
(313331.5, 3995661.5,   125.6,   125.6,   0.0);   (313351.5,
3995661.5,   125.6,   125.6,   0.0);
(313371.5, 3995661.5,   125.7,   125.7,   0.0);   (313391.5,
3995661.5,   125.7,   125.7,   0.0);
(313411.5, 3995661.5,   125.7,   125.7,   0.0);   (313431.5,
3995661.5,   125.7,   125.7,   0.0);
(313451.5, 3995661.5,   125.8,   125.8,   0.0);   (313471.5,
3995661.5,   125.8,   125.8,   0.0);
(313491.5, 3995661.5,   125.8,   125.8,   0.0);   (313511.5,
3995661.5,   125.8,   125.8,   0.0);
(313531.5, 3995661.5,   125.8,   125.8,   0.0);   (313971.5,
3995661.5,   126.2,   126.2,   0.0);
(313991.5, 3995661.5,   126.3,   126.3,   0.0);   (314011.5,

```
3995661.5,     126.3,     126.3,       0.0);
     ( 314031.5, 3995661.5,     126.3,     126.3,       0.0);          ( 314051.5,
3995661.5,     126.4,     126.4,       0.0);
     ( 314071.5, 3995661.5,     126.4,     126.4,       0.0);          ( 314091.5,
3995661.5,     126.5,     126.5,       0.0);
     ( 314111.5, 3995661.5,     126.5,     126.5,       0.0);          ( 314131.5,
3995661.5,     126.5,     126.5,       0.0);
     ( 314151.5, 3995661.5,     126.6,     126.6,       0.0);          ( 314171.5,
3995661.5,     126.6,     126.6,       0.0);
     ( 314191.5, 3995661.5,     126.7,     126.7,       0.0);          ( 314211.5,
3995661.5,     126.7,     126.7,       0.0);
     ( 314231.5, 3995661.5,     126.7,     126.7,       0.0);          ( 314251.5,
3995661.5,     126.8,     126.8,       0.0);
     ( 314271.5, 3995661.5,     126.8,     126.8,       0.0);          ( 313271.5,
3995681.5,     125.5,     125.5,       0.0);
     ( 313291.5, 3995681.5,     125.5,     125.5,       0.0);          ( 313311.5,
3995681.5,     125.6,     125.6,       0.0);
     ( 313331.5, 3995681.5,     125.6,     125.6,       0.0);          ( 313351.5,
3995681.5,     125.6,     125.6,       0.0);
     ( 313371.5, 3995681.5,     125.6,     125.6,       0.0);          ( 313391.5,
3995681.5,     125.7,     125.7,       0.0);
     ( 313411.5, 3995681.5,     125.7,     125.7,       0.0);          ( 313431.5,
3995681.5,     125.7,     125.7,       0.0);
     ( 313451.5, 3995681.5,     125.7,     125.7,       0.0);          ( 313471.5,
3995681.5,     125.8,     125.8,       0.0);
     ( 313491.5, 3995681.5,     125.8,     125.8,       0.0);          ( 313511.5,
3995681.5,     125.8,     125.8,       0.0);
     ( 313531.5, 3995681.5,     125.8,     125.8,       0.0);          ( 313971.5,
3995681.5,     126.2,     126.2,       0.0);
     ( 313991.5, 3995681.5,     126.2,     126.2,       0.0);          ( 314011.5,
3995681.5,     126.3,     126.3,       0.0);
     ( 314031.5, 3995681.5,     126.3,     126.3,       0.0);          ( 314051.5,
3995681.5,     126.3,     126.3,       0.0);
     ( 314071.5, 3995681.5,     126.4,     126.4,       0.0);          ( 314091.5,
3995681.5,     126.4,     126.4,       0.0);
     ( 314111.5, 3995681.5,     126.5,     126.5,       0.0);          ( 314131.5,
3995681.5,     126.5,     126.5,       0.0);
     ( 314151.5, 3995681.5,     126.5,     126.5,       0.0);          ( 314171.5,
3995681.5,     126.6,     126.6,       0.0);
     ( 314191.5, 3995681.5,     126.6,     126.6,       0.0);          ( 314211.5,
3995681.5,     126.7,     126.7,       0.0);
     ( 314231.5, 3995681.5,     126.7,     126.7,       0.0);          ( 314251.5,
3995681.5,     126.7,     126.7,       0.0);
     ( 314271.5, 3995681.5,     126.8,     126.8,       0.0);          ( 313271.5,
3995701.5,     125.5,     125.5,       0.0);
     ( 313291.5, 3995701.5,     125.5,     125.5,       0.0);          ( 313311.5,
3995701.5,     125.6,     125.6,       0.0);
     ( 313331.5, 3995701.5,     125.6,     125.6,       0.0);          ( 313351.5,
3995701.5,     125.6,     125.6,       0.0);
     ( 313371.5, 3995701.5,     125.6,     125.6,       0.0);          ( 313391.5,
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3995701.5,     125.7,     125.7,       0.0);
     ( 313411.5, 3995701.5,     125.7,     125.7,       0.0);         ( 313431.5,
3995701.5,     125.7,     125.7,       0.0);
     ( 313451.5, 3995701.5,     125.7,     125.7,       0.0);         ( 313471.5,
3995701.5,     125.7,     125.7,       0.0);
     ( 313491.5, 3995701.5,     125.8,     125.8,       0.0);         ( 313511.5,
3995701.5,     125.8,     125.8,       0.0);
     ( 313531.5, 3995701.5,     125.8,     125.8,       0.0);         ( 313971.5,
3995701.5,     126.2,     126.2,       0.0);
     ( 313991.5, 3995701.5,     126.2,     126.2,       0.0);         ( 314011.5,
3995701.5,     126.2,     126.2,       0.0);
     ( 314031.5, 3995701.5,     126.3,     126.3,       0.0);         ( 314051.5,
3995701.5,     126.3,     126.3,       0.0);
     ( 314071.5, 3995701.5,     126.3,     126.3,       0.0);         ( 314091.5,
3995701.5,     126.4,     126.4,       0.0);
     ( 314111.5, 3995701.5,     126.4,     126.4,       0.0);         ( 314131.5,
3995701.5,     126.5,     126.5,       0.0);
     ( 314151.5, 3995701.5,     126.5,     126.5,       0.0);         ( 314171.5,
3995701.5,     126.5,     126.5,       0.0);
     ( 314191.5, 3995701.5,     126.6,     126.6,       0.0);         ( 314211.5,
3995701.5,     126.6,     126.6,       0.0);
     ( 314231.5, 3995701.5,     126.7,     126.7,       0.0);         ( 314251.5,
3995701.5,     126.7,     126.7,       0.0);
     ( 314271.5, 3995701.5,     126.8,     126.8,       0.0);         ( 313271.5,
3995721.5,     125.5,     125.5,       0.0);
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```
                                            *** DISCRETE CARTESIAN RECEPTORS ***
                                          (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                          (METERS)

     ( 313291.5, 3995721.5,     125.5,     125.5,       0.0);         ( 313311.5,
3995721.5,     125.5,     125.5,       0.0);
     ( 313331.5, 3995721.5,     125.6,     125.6,       0.0);         ( 313351.5,
3995721.5,     125.6,     125.6,       0.0);
     ( 313371.5, 3995721.5,     125.6,     125.6,       0.0);         ( 313391.5,
3995721.5,     125.6,     125.6,       0.0);
     ( 313411.5, 3995721.5,     125.7,     125.7,       0.0);         ( 313431.5,
3995721.5,     125.7,     125.7,       0.0);
     ( 313451.5, 3995721.5,     125.7,     125.7,       0.0);         ( 313471.5,
3995721.5,     125.7,     125.7,       0.0);
     ( 313491.5, 3995721.5,     125.7,     125.7,       0.0);         ( 313511.5,
3995721.5,     125.8,     125.8,       0.0);
     ( 313531.5, 3995721.5,     125.8,     125.8,       0.0);         ( 313971.5,
```

```
3995721.5,     126.1,     126.1,       0.0);
     ( 313991.5, 3995721.5,     126.1,     126.1,       0.0);          ( 314011.5,
3995721.5,     126.2,     126.2,       0.0);
     ( 314031.5, 3995721.5,     126.2,     126.2,       0.0);          ( 314051.5,
3995721.5,     126.2,     126.2,       0.0);
     ( 314071.5, 3995721.5,     126.3,     126.3,       0.0);          ( 314091.5,
3995721.5,     126.3,     126.3,       0.0);
     ( 314111.5, 3995721.5,     126.4,     126.4,       0.0);          ( 314131.5,
3995721.5,     126.4,     126.4,       0.0);
     ( 314151.5, 3995721.5,     126.5,     126.5,       0.0);          ( 314171.5,
3995721.5,     126.5,     126.5,       0.0);
     ( 314191.5, 3995721.5,     126.5,     126.5,       0.0);          ( 314211.5,
3995721.5,     126.6,     126.6,       0.0);
     ( 314231.5, 3995721.5,     126.6,     126.6,       0.0);          ( 314251.5,
3995721.5,     126.7,     126.7,       0.0);
     ( 314271.5, 3995721.5,     126.7,     126.7,       0.0);          ( 313271.5,
3995741.5,     125.5,     125.5,       0.0);
     ( 313291.5, 3995741.5,     125.5,     125.5,       0.0);          ( 313311.5,
3995741.5,     125.5,     125.5,       0.0);
     ( 313331.5, 3995741.5,     125.5,     125.5,       0.0);          ( 313351.5,
3995741.5,     125.6,     125.6,       0.0);
     ( 313371.5, 3995741.5,     125.6,     125.6,       0.0);          ( 313391.5,
3995741.5,     125.6,     125.6,       0.0);
     ( 313411.5, 3995741.5,     125.7,     125.7,       0.0);          ( 313431.5,
3995741.5,     125.7,     125.7,       0.0);
     ( 313451.5, 3995741.5,     125.7,     125.7,       0.0);          ( 313471.5,
3995741.5,     125.7,     125.7,       0.0);
     ( 313491.5, 3995741.5,     125.7,     125.7,       0.0);          ( 313511.5,
3995741.5,     125.7,     125.7,       0.0);
     ( 313531.5, 3995741.5,     125.8,     125.8,       0.0);          ( 313971.5,
3995741.5,     126.1,     126.1,       0.0);
     ( 313991.5, 3995741.5,     126.1,     126.1,       0.0);          ( 314011.5,
3995741.5,     126.1,     126.1,       0.0);
     ( 314031.5, 3995741.5,     126.2,     126.2,       0.0);          ( 314051.5,
3995741.5,     126.2,     126.2,       0.0);
     ( 314071.5, 3995741.5,     126.2,     126.2,       0.0);          ( 314091.5,
3995741.5,     126.3,     126.3,       0.0);
     ( 314111.5, 3995741.5,     126.3,     126.3,       0.0);          ( 314131.5,
3995741.5,     126.4,     126.4,       0.0);
     ( 314151.5, 3995741.5,     126.4,     126.4,       0.0);          ( 314171.5,
3995741.5,     126.5,     126.5,       0.0);
     ( 314191.5, 3995741.5,     126.5,     126.5,       0.0);          ( 314211.5,
3995741.5,     126.6,     126.6,       0.0);
     ( 314231.5, 3995741.5,     126.6,     126.6,       0.0);          ( 314251.5,
3995741.5,     126.6,     126.6,       0.0);
     ( 314271.5, 3995741.5,     126.7,     126.7,       0.0);          ( 313271.5,
3995761.5,     125.5,     125.5,       0.0);
     ( 313291.5, 3995761.5,     125.5,     125.5,       0.0);          ( 313311.5,
3995761.5,     125.5,     125.5,       0.0);
     ( 313331.5, 3995761.5,     125.5,     125.5,       0.0);          ( 313351.5,
```

3995761.5,   125.6,   125.6,   0.0);
     (313371.5, 3995761.5,   125.6,   125.6,   0.0);   (313391.5,
3995761.5,   125.6,   125.6,   0.0);
     (313411.5, 3995761.5,   125.7,   125.7,   0.0);   (313431.5,
3995761.5,   125.7,   125.7,   0.0);
     (313451.5, 3995761.5,   125.7,   125.7,   0.0);   (313471.5,
3995761.5,   125.7,   125.7,   0.0);
     (313491.5, 3995761.5,   125.7,   125.7,   0.0);   (313511.5,
3995761.5,   125.7,   125.7,   0.0);
     (313531.5, 3995761.5,   125.7,   125.7,   0.0);   (313971.5,
3995761.5,   126.0,   126.0,   0.0);
     (313991.5, 3995761.5,   126.1,   126.1,   0.0);   (314011.5,
3995761.5,   126.1,   126.1,   0.0);
     (314031.5, 3995761.5,   126.1,   126.1,   0.0);   (314051.5,
3995761.5,   126.2,   126.2,   0.0);
     (314071.5, 3995761.5,   126.2,   126.2,   0.0);   (314091.5,
3995761.5,   126.2,   126.2,   0.0);
     (314111.5, 3995761.5,   126.3,   126.3,   0.0);   (314131.5,
3995761.5,   126.3,   126.3,   0.0);
     (314151.5, 3995761.5,   126.4,   126.4,   0.0);   (314171.5,
3995761.5,   126.4,   126.4,   0.0);
     (314191.5, 3995761.5,   126.5,   126.5,   0.0);   (314211.5,
3995761.5,   126.5,   126.5,   0.0);
     (314231.5, 3995761.5,   126.6,   126.6,   0.0);   (314251.5,
3995761.5,   126.6,   126.6,   0.0);
     (314271.5, 3995761.5,   126.7,   126.7,   0.0);   (313271.5,
3995781.5,   125.4,   125.4,   0.0);

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

     (313291.5, 3995781.5,   125.5,   125.5,   0.0);   (313311.5,
3995781.5,   125.5,   125.5,   0.0);
     (313331.5, 3995781.5,   125.5,   125.5,   0.0);   (313351.5,
3995781.5,   125.6,   125.6,   0.0);
     (313371.5, 3995781.5,   125.6,   125.6,   0.0);   (313391.5,
3995781.5,   125.6,   125.6,   0.0);
     (313411.5, 3995781.5,   125.6,   125.6,   0.0);   (313431.5,
3995781.5,   125.7,   125.7,   0.0);
     (313451.5, 3995781.5,   125.7,   125.7,   0.0);   (313471.5,
3995781.5,   125.7,   125.7,   0.0);
     (313491.5, 3995781.5,   125.7,   125.7,   0.0);   (313511.5,

3995781.5,   125.7,   125.7,   0.0);
     (313531.5, 3995781.5,   125.7,   125.7,   0.0);   (313971.5,
3995781.5,   126.0,   126.0,   0.0);
     (313991.5, 3995781.5,   126.0,   126.0,   0.0);   (314011.5,
3995781.5,   126.1,   126.1,   0.0);
     (314031.5, 3995781.5,   126.1,   126.1,   0.0);   (314051.5,
3995781.5,   126.1,   126.1,   0.0);
     (314071.5, 3995781.5,   126.2,   126.2,   0.0);   (314091.5,
3995781.5,   126.2,   126.2,   0.0);
     (314111.5, 3995781.5,   126.3,   126.3,   0.0);   (314131.5,
3995781.5,   126.3,   126.3,   0.0);
     (314151.5, 3995781.5,   126.3,   126.3,   0.0);   (314171.5,
3995781.5,   126.4,   126.4,   0.0);
     (314191.5, 3995781.5,   126.5,   126.5,   0.0);   (314211.5,
3995781.5,   126.5,   126.5,   0.0);
     (314231.5, 3995781.5,   126.5,   126.5,   0.0);   (314251.5,
3995781.5,   126.6,   126.6,   0.0);
     (314271.5, 3995781.5,   126.6,   126.6,   0.0);   (313271.5,
3995801.5,   125.4,   125.4,   0.0);
     (313291.5, 3995801.5,   125.5,   125.5,   0.0);   (313311.5,
3995801.5,   125.5,   125.5,   0.0);
     (313331.5, 3995801.5,   125.5,   125.5,   0.0);   (313351.5,
3995801.5,   125.6,   125.6,   0.0);
     (313371.5, 3995801.5,   125.6,   125.6,   0.0);   (313391.5,
3995801.5,   125.6,   125.6,   0.0);
     (313411.5, 3995801.5,   125.6,   125.6,   0.0);   (313431.5,
3995801.5,   125.7,   125.7,   0.0);
     (313451.5, 3995801.5,   125.7,   125.7,   0.0);   (313471.5,
3995801.5,   125.7,   125.7,   0.0);
     (313491.5, 3995801.5,   125.7,   125.7,   0.0);   (313511.5,
3995801.5,   125.7,   125.7,   0.0);
     (313531.5, 3995801.5,   125.7,   125.7,   0.0);   (313971.5,
3995801.5,   126.0,   126.0,   0.0);
     (313991.5, 3995801.5,   126.0,   126.0,   0.0);   (314011.5,
3995801.5,   126.0,   126.0,   0.0);
     (314031.5, 3995801.5,   126.1,   126.1,   0.0);   (314051.5,
3995801.5,   126.1,   126.1,   0.0);
     (314071.5, 3995801.5,   126.1,   126.1,   0.0);   (314091.5,
3995801.5,   126.2,   126.2,   0.0);
     (314111.5, 3995801.5,   126.2,   126.2,   0.0);   (314131.5,
3995801.5,   126.3,   126.3,   0.0);
     (314151.5, 3995801.5,   126.3,   126.3,   0.0);   (314171.5,
3995801.5,   126.4,   126.4,   0.0);
     (314191.5, 3995801.5,   126.4,   126.4,   0.0);   (314211.5,
3995801.5,   126.5,   126.5,   0.0);
     (314231.5, 3995801.5,   126.5,   126.5,   0.0);   (314251.5,
3995801.5,   126.5,   126.5,   0.0);
     (314271.5, 3995801.5,   126.6,   126.6,   0.0);   (313271.5,
3995821.5,   125.4,   125.4,   0.0);
     (313291.5, 3995821.5,   125.5,   125.5,   0.0);   (313311.5,

```
3995821.5,     125.5,     125.5,       0.0);
     ( 313331.5, 3995821.5,     125.5,     125.5,       0.0);         ( 313351.5,
3995821.5,     125.5,     125.5,       0.0);
     ( 313371.5, 3995821.5,     125.6,     125.6,       0.0);         ( 313391.5,
3995821.5,     125.6,     125.6,       0.0);
     ( 313411.5, 3995821.5,     125.6,     125.6,       0.0);         ( 313431.5,
3995821.5,     125.6,     125.6,       0.0);
     ( 313451.5, 3995821.5,     125.7,     125.7,       0.0);         ( 313471.5,
3995821.5,     125.7,     125.7,       0.0);
     ( 313491.5, 3995821.5,     125.7,     125.7,       0.0);         ( 313511.5,
3995821.5,     125.7,     125.7,       0.0);
     ( 313531.5, 3995821.5,     125.7,     125.7,       0.0);         ( 313971.5,
3995821.5,     125.9,     125.9,       0.0);
     ( 313991.5, 3995821.5,     126.0,     126.0,       0.0);         ( 314011.5,
3995821.5,     126.0,     126.0,       0.0);
     ( 314031.5, 3995821.5,     126.0,     126.0,       0.0);         ( 314051.5,
3995821.5,     126.1,     126.1,       0.0);
     ( 314071.5, 3995821.5,     126.1,     126.1,       0.0);         ( 314091.5,
3995821.5,     126.1,     126.1,       0.0);
     ( 314111.5, 3995821.5,     126.2,     126.2,       0.0);         ( 314131.5,
3995821.5,     126.2,     126.2,       0.0);
     ( 314151.5, 3995821.5,     126.3,     126.3,       0.0);         ( 314171.5,
3995821.5,     126.3,     126.3,       0.0);
     ( 314191.5, 3995821.5,     126.4,     126.4,       0.0);         ( 314211.5,
3995821.5,     126.4,     126.4,       0.0);
     ( 314231.5, 3995821.5,     126.5,     126.5,       0.0);         ( 314251.5,
3995821.5,     126.5,     126.5,       0.0);
     ( 314271.5, 3995821.5,     126.6,     126.6,       0.0);         ( 313271.5,
3995841.5,     125.4,     125.4,       0.0);
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                                                       *** DISCRETE CARTESIAN RECEPTORS ***
                                                     (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                     (METERS)

     ( 313291.5, 3995841.5,     125.4,     125.4,       0.0);         ( 313311.5,
3995841.5,     125.5,     125.5,       0.0);
     ( 313331.5, 3995841.5,     125.5,     125.5,       0.0);         ( 313351.5,
3995841.5,     125.5,     125.5,       0.0);
     ( 313371.5, 3995841.5,     125.6,     125.6,       0.0);         ( 313391.5,
3995841.5,     125.6,     125.6,       0.0);
     ( 313411.5, 3995841.5,     125.6,     125.6,       0.0);         ( 313431.5,
3995841.5,     125.6,     125.6,       0.0);
     ( 313451.5, 3995841.5,     125.7,     125.7,       0.0);         ( 313471.5,
```

3995841.5,   125.7,   125.7,   0.0);
     (313491.5, 3995841.5,   125.7,   125.7,   0.0);   (313511.5,
3995841.5,   125.7,   125.7,   0.0);
     (313531.5, 3995841.5,   125.7,   125.7,   0.0);   (313971.5,
3995841.5,   125.9,   125.9,   0.0);
     (313991.5, 3995841.5,   125.9,   125.9,   0.0);   (314011.5,
3995841.5,   126.0,   126.0,   0.0);
     (314031.5, 3995841.5,   126.0,   126.0,   0.0);   (314051.5,
3995841.5,   126.0,   126.0,   0.0);
     (314071.5, 3995841.5,   126.1,   126.1,   0.0);   (314091.5,
3995841.5,   126.1,   126.1,   0.0);
     (314111.5, 3995841.5,   126.2,   126.2,   0.0);   (314131.5,
3995841.5,   126.2,   126.2,   0.0);
     (314151.5, 3995841.5,   126.3,   126.3,   0.0);   (314171.5,
3995841.5,   126.3,   126.3,   0.0);
     (314191.5, 3995841.5,   126.4,   126.4,   0.0);   (314211.5,
3995841.5,   126.4,   126.4,   0.0);
     (314231.5, 3995841.5,   126.5,   126.5,   0.0);   (314251.5,
3995841.5,   126.5,   126.5,   0.0);
     (314271.5, 3995841.5,   126.5,   126.5,   0.0);   (313271.5,
3995861.5,   125.4,   125.4,   0.0);
     (313291.5, 3995861.5,   125.4,   125.4,   0.0);   (313311.5,
3995861.5,   125.5,   125.5,   0.0);
     (313331.5, 3995861.5,   125.5,   125.5,   0.0);   (313351.5,
3995861.5,   125.5,   125.5,   0.0);
     (313371.5, 3995861.5,   125.6,   125.6,   0.0);   (313391.5,
3995861.5,   125.6,   125.6,   0.0);
     (313411.5, 3995861.5,   125.6,   125.6,   0.0);   (313431.5,
3995861.5,   125.6,   125.6,   0.0);
     (313451.5, 3995861.5,   125.7,   125.7,   0.0);   (313471.5,
3995861.5,   125.7,   125.7,   0.0);
     (313491.5, 3995861.5,   125.7,   125.7,   0.0);   (313511.5,
3995861.5,   125.7,   125.7,   0.0);
     (313531.5, 3995861.5,   125.7,   125.7,   0.0);   (313991.5,
3995861.5,   125.9,   125.9,   0.0);
     (314011.5, 3995861.5,   125.9,   125.9,   0.0);   (314031.5,
3995861.5,   126.0,   126.0,   0.0);
     (314051.5, 3995861.5,   126.0,   126.0,   0.0);   (314071.5,
3995861.5,   126.0,   126.0,   0.0);
     (314091.5, 3995861.5,   126.1,   126.1,   0.0);   (314111.5,
3995861.5,   126.1,   126.1,   0.0);
     (314131.5, 3995861.5,   126.2,   126.2,   0.0);   (314151.5,
3995861.5,   126.2,   126.2,   0.0);
     (314171.5, 3995861.5,   126.3,   126.3,   0.0);   (314191.5,
3995861.5,   126.3,   126.3,   0.0);
     (314211.5, 3995861.5,   126.4,   126.4,   0.0);   (314231.5,
3995861.5,   126.4,   126.4,   0.0);
     (314251.5, 3995861.5,   126.5,   126.5,   0.0);   (314271.5,
3995861.5,   126.5,   126.5,   0.0);
     (313271.5, 3995881.5,   125.4,   125.4,   0.0);   (313291.5,

```
3995881.5,     125.4,     125.4,       0.0);
     ( 313311.5, 3995881.5,     125.5,     125.5,       0.0);          ( 313331.5,
3995881.5,     125.5,     125.5,       0.0);
     ( 313351.5, 3995881.5,     125.5,     125.5,       0.0);          ( 313371.5,
3995881.5,     125.6,     125.6,       0.0);
     ( 313391.5, 3995881.5,     125.6,     125.6,       0.0);          ( 313411.5,
3995881.5,     125.6,     125.6,       0.0);
     ( 313431.5, 3995881.5,     125.6,     125.6,       0.0);          ( 313451.5,
3995881.5,     125.7,     125.7,       0.0);
     ( 313471.5, 3995881.5,     125.7,     125.7,       0.0);          ( 313491.5,
3995881.5,     125.7,     125.7,       0.0);
     ( 313511.5, 3995881.5,     125.7,     125.7,       0.0);          ( 313531.5,
3995881.5,     125.7,     125.7,       0.0);
     ( 313991.5, 3995881.5,     125.8,     125.8,       0.0);          ( 314011.5,
3995881.5,     125.9,     125.9,       0.0);
     ( 314031.5, 3995881.5,     125.9,     125.9,       0.0);          ( 314051.5,
3995881.5,     126.0,     126.0,       0.0);
     ( 314071.5, 3995881.5,     126.0,     126.0,       0.0);          ( 314091.5,
3995881.5,     126.1,     126.1,       0.0);
     ( 314111.5, 3995881.5,     126.1,     126.1,       0.0);          ( 314131.5,
3995881.5,     126.2,     126.2,       0.0);
     ( 314151.5, 3995881.5,     126.2,     126.2,       0.0);          ( 314171.5,
3995881.5,     126.2,     126.2,       0.0);
     ( 314191.5, 3995881.5,     126.3,     126.3,       0.0);          ( 314211.5,
3995881.5,     126.3,     126.3,       0.0);
     ( 314231.5, 3995881.5,     126.4,     126.4,       0.0);          ( 314251.5,
3995881.5,     126.4,     126.4,       0.0);
     ( 314271.5, 3995881.5,     126.5,     126.5,       0.0);          ( 313291.5,
3995901.5,     125.4,     125.4,       0.0);
     ( 313311.5, 3995901.5,     125.5,     125.5,       0.0);          ( 313331.5,
3995901.5,     125.5,     125.5,       0.0);
```


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                                                     *** DISCRETE CARTESIAN RECEPTORS ***
                                                   (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                   (METERS)

     ( 313351.5, 3995901.5,     125.5,     125.5,       0.0);          ( 313371.5,
3995901.5,     125.6,     125.6,       0.0);
     ( 313391.5, 3995901.5,     125.6,     125.6,       0.0);          ( 313411.5,
3995901.5,     125.6,     125.6,       0.0);
     ( 313431.5, 3995901.5,     125.6,     125.6,       0.0);          ( 313451.5,
3995901.5,     125.7,     125.7,       0.0);
     ( 313471.5, 3995901.5,     125.7,     125.7,       0.0);          ( 313491.5,
```

3995901.5,   125.7,   125.7,   0.0);
     (313511.5, 3995901.5,   125.7,   125.7,   0.0);   (313531.5,
3995901.5,   125.7,   125.7,   0.0);
     (313991.5, 3995901.5,   125.8,   125.8,   0.0);   (314011.5,
3995901.5,   125.9,   125.9,   0.0);
     (314031.5, 3995901.5,   125.9,   125.9,   0.0);   (314051.5,
3995901.5,   126.0,   126.0,   0.0);
     (314071.5, 3995901.5,   126.0,   126.0,   0.0);   (314091.5,
3995901.5,   126.0,   126.0,   0.0);
     (314111.5, 3995901.5,   126.1,   126.1,   0.0);   (314131.5,
3995901.5,   126.1,   126.1,   0.0);
     (314151.5, 3995901.5,   126.2,   126.2,   0.0);   (314171.5,
3995901.5,   126.2,   126.2,   0.0);
     (314191.5, 3995901.5,   126.3,   126.3,   0.0);   (314211.5,
3995901.5,   126.3,   126.3,   0.0);
     (314231.5, 3995901.5,   126.3,   126.3,   0.0);   (314251.5,
3995901.5,   126.4,   126.4,   0.0);
     (314271.5, 3995901.5,   126.4,   126.4,   0.0);   (313311.5,
3995921.5,   125.5,   125.5,   0.0);
     (313331.5, 3995921.5,   125.5,   125.5,   0.0);   (313351.5,
3995921.5,   125.5,   125.5,   0.0);
     (313371.5, 3995921.5,   125.6,   125.6,   0.0);   (313391.5,
3995921.5,   125.6,   125.6,   0.0);
     (313411.5, 3995921.5,   125.6,   125.6,   0.0);   (313431.5,
3995921.5,   125.6,   125.6,   0.0);
     (313451.5, 3995921.5,   125.7,   125.7,   0.0);   (313471.5,
3995921.5,   125.7,   125.7,   0.0);
     (313491.5, 3995921.5,   125.7,   125.7,   0.0);   (313511.5,
3995921.5,   125.7,   125.7,   0.0);
     (313531.5, 3995921.5,   125.7,   125.7,   0.0);   (313991.5,
3995921.5,   125.8,   125.8,   0.0);
     (314011.5, 3995921.5,   125.8,   125.8,   0.0);   (314031.5,
3995921.5,   125.9,   125.9,   0.0);
     (314051.5, 3995921.5,   125.9,   125.9,   0.0);   (314071.5,
3995921.5,   126.0,   126.0,   0.0);
     (314091.5, 3995921.5,   126.0,   126.0,   0.0);   (314111.5,
3995921.5,   126.1,   126.1,   0.0);
     (314131.5, 3995921.5,   126.1,   126.1,   0.0);   (314151.5,
3995921.5,   126.1,   126.1,   0.0);
     (314171.5, 3995921.5,   126.2,   126.2,   0.0);   (314191.5,
3995921.5,   126.2,   126.2,   0.0);
     (314211.5, 3995921.5,   126.3,   126.3,   0.0);   (314231.5,
3995921.5,   126.3,   126.3,   0.0);
     (314251.5, 3995921.5,   126.3,   126.3,   0.0);   (314271.5,
3995921.5,   126.4,   126.4,   0.0);
     (313331.5, 3995941.5,   125.5,   125.5,   0.0);   (313351.5,
3995941.5,   125.5,   125.5,   0.0);
     (313371.5, 3995941.5,   125.5,   125.5,   0.0);   (313391.5,
3995941.5,   125.6,   125.6,   0.0);
     (313411.5, 3995941.5,   125.6,   125.6,   0.0);   (313431.5,

```
3995941.5,     125.6,     125.6,       0.0);
     ( 313451.5, 3995941.5,     125.7,     125.7,       0.0);          ( 313471.5,
3995941.5,     125.7,     125.7,       0.0);
     ( 313491.5, 3995941.5,     125.7,     125.7,       0.0);          ( 313511.5,
3995941.5,     125.7,     125.7,       0.0);
     ( 313531.5, 3995941.5,     125.7,     125.7,       0.0);          ( 313991.5,
3995941.5,     125.8,     125.8,       0.0);
     ( 314011.5, 3995941.5,     125.8,     125.8,       0.0);          ( 314031.5,
3995941.5,     125.9,     125.9,       0.0);
     ( 314051.5, 3995941.5,     125.9,     125.9,       0.0);          ( 314071.5,
3995941.5,     126.0,     126.0,       0.0);
     ( 314091.5, 3995941.5,     126.0,     126.0,       0.0);          ( 314111.5,
3995941.5,     126.0,     126.0,       0.0);
     ( 314131.5, 3995941.5,     126.1,     126.1,       0.0);          ( 314151.5,
3995941.5,     126.1,     126.1,       0.0);
     ( 314171.5, 3995941.5,     126.2,     126.2,       0.0);          ( 314191.5,
3995941.5,     126.2,     126.2,       0.0);
     ( 314211.5, 3995941.5,     126.2,     126.2,       0.0);          ( 314231.5,
3995941.5,     126.3,     126.3,       0.0);
     ( 314251.5, 3995941.5,     126.3,     126.3,       0.0);          ( 314271.5,
3995941.5,     126.4,     126.4,       0.0);
     ( 313351.5, 3995961.5,     125.5,     125.5,       0.0);          ( 313371.5,
3995961.5,     125.5,     125.5,       0.0);
     ( 313391.5, 3995961.5,     125.6,     125.6,       0.0);          ( 313411.5,
3995961.5,     125.6,     125.6,       0.0);
     ( 313431.5, 3995961.5,     125.6,     125.6,       0.0);          ( 313451.5,
3995961.5,     125.7,     125.7,       0.0);
     ( 313471.5, 3995961.5,     125.7,     125.7,       0.0);          ( 313491.5,
3995961.5,     125.7,     125.7,       0.0);
     ( 313511.5, 3995961.5,     125.8,     125.8,       0.0);          ( 313531.5,
3995961.5,     125.8,     125.8,       0.0);
     ( 313991.5, 3995961.5,     125.8,     125.8,       0.0);          ( 314011.5,
3995961.5,     125.8,     125.8,       0.0);
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                                              *** DISCRETE CARTESIAN RECEPTORS ***
                                            (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                            (METERS)

     ( 314031.5, 3995961.5,     125.8,     125.8,       0.0);          ( 314051.5,
3995961.5,     125.9,     125.9,       0.0);
     ( 314071.5, 3995961.5,     125.9,     125.9,       0.0);          ( 314091.5,
3995961.5,     126.0,     126.0,       0.0);
     ( 314111.5, 3995961.5,     126.0,     126.0,       0.0);          ( 314131.5,
```

3995961.5, 126.1, 126.1, 0.0);
(314151.5, 3995961.5, 126.1, 126.1, 0.0); (314171.5,
3995961.5, 126.1, 126.1, 0.0);
(314191.5, 3995961.5, 126.2, 126.2, 0.0); (314211.5,
3995961.5, 126.2, 126.2, 0.0);
(314231.5, 3995961.5, 126.2, 126.2, 0.0); (314251.5,
3995961.5, 126.3, 126.3, 0.0);
(314271.5, 3995961.5, 126.3, 126.3, 0.0); (313371.5,
3995981.5, 125.5, 125.5, 0.0);
(313391.5, 3995981.5, 125.6, 125.6, 0.0); (313411.5,
3995981.5, 125.6, 125.6, 0.0);
(313431.5, 3995981.5, 125.6, 125.6, 0.0); (313451.5,
3995981.5, 125.7, 125.7, 0.0);
(313471.5, 3995981.5, 125.7, 125.7, 0.0); (313491.5,
3995981.5, 125.7, 125.7, 0.0);
(313511.5, 3995981.5, 125.8, 125.8, 0.0); (313531.5,
3995981.5, 125.8, 125.8, 0.0);
(313991.5, 3995981.5, 125.8, 125.8, 0.0); (314011.5,
3995981.5, 125.8, 125.8, 0.0);
(314031.5, 3995981.5, 125.8, 125.8, 0.0); (314051.5,
3995981.5, 125.9, 125.9, 0.0);
(314071.5, 3995981.5, 125.9, 125.9, 0.0); (314091.5,
3995981.5, 126.0, 126.0, 0.0);
(314111.5, 3995981.5, 126.0, 126.0, 0.0); (314131.5,
3995981.5, 126.0, 126.0, 0.0);
(314151.5, 3995981.5, 126.1, 126.1, 0.0); (314171.5,
3995981.5, 126.1, 126.1, 0.0);
(314191.5, 3995981.5, 126.2, 126.2, 0.0); (314211.5,
3995981.5, 126.2, 126.2, 0.0);
(314231.5, 3995981.5, 126.2, 126.2, 0.0); (314251.5,
3995981.5, 126.3, 126.3, 0.0);
(314271.5, 3995981.5, 126.3, 126.3, 0.0); (313391.5,
3996001.5, 125.6, 125.6, 0.0);
(313411.5, 3996001.5, 125.6, 125.6, 0.0); (313431.5,
3996001.5, 125.6, 125.6, 0.0);
(313451.5, 3996001.5, 125.7, 125.7, 0.0); (313471.5,
3996001.5, 125.7, 125.7, 0.0);
(313491.5, 3996001.5, 125.7, 125.7, 0.0); (313511.5,
3996001.5, 125.8, 125.8, 0.0);
(313531.5, 3996001.5, 125.8, 125.8, 0.0); (313991.5,
3996001.5, 125.8, 125.8, 0.0);
(314011.5, 3996001.5, 125.8, 125.8, 0.0); (314031.5,
3996001.5, 125.8, 125.8, 0.0);
(314051.5, 3996001.5, 125.9, 125.9, 0.0); (314071.5,
3996001.5, 125.9, 125.9, 0.0);
(314091.5, 3996001.5, 126.0, 126.0, 0.0); (314111.5,
3996001.5, 126.0, 126.0, 0.0);
(314131.5, 3996001.5, 126.0, 126.0, 0.0); (314151.5,
3996001.5, 126.1, 126.1, 0.0);
(314171.5, 3996001.5, 126.1, 126.1, 0.0); (314191.5,

```
3996001.5,     126.1,     126.1,       0.0);
     ( 314211.5, 3996001.5,     126.2,     126.2,       0.0);         ( 314231.5,
3996001.5,     126.2,     126.2,       0.0);
     ( 314251.5, 3996001.5,     126.2,     126.2,       0.0);         ( 314271.5,
3996001.5,     126.3,     126.3,       0.0);
     ( 313411.5, 3996021.5,     125.6,     125.6,       0.0);         ( 313431.5,
3996021.5,     125.6,     125.6,       0.0);
     ( 313451.5, 3996021.5,     125.7,     125.7,       0.0);         ( 313471.5,
3996021.5,     125.7,     125.7,       0.0);
     ( 313491.5, 3996021.5,     125.7,     125.7,       0.0);         ( 313511.5,
3996021.5,     125.8,     125.8,       0.0);
     ( 313531.5, 3996021.5,     125.8,     125.8,       0.0);         ( 313991.5,
3996021.5,     125.7,     125.7,       0.0);
     ( 314011.5, 3996021.5,     125.8,     125.8,       0.0);         ( 314031.5,
3996021.5,     125.8,     125.8,       0.0);
     ( 314051.5, 3996021.5,     125.8,     125.8,       0.0);         ( 314071.5,
3996021.5,     125.9,     125.9,       0.0);
     ( 314091.5, 3996021.5,     125.9,     125.9,       0.0);         ( 314111.5,
3996021.5,     126.0,     126.0,       0.0);
     ( 314131.5, 3996021.5,     126.0,     126.0,       0.0);         ( 314151.5,
3996021.5,     126.0,     126.0,       0.0);
     ( 314171.5, 3996021.5,     126.1,     126.1,       0.0);         ( 314191.5,
3996021.5,     126.1,     126.1,       0.0);
     ( 314211.5, 3996021.5,     126.1,     126.1,       0.0);         ( 314231.5,
3996021.5,     126.2,     126.2,       0.0);
     ( 314251.5, 3996021.5,     126.2,     126.2,       0.0);         ( 314271.5,
3996021.5,     126.3,     126.3,       0.0);
     ( 313431.5, 3996041.5,     125.6,     125.6,       0.0);         ( 313451.5,
3996041.5,     125.7,     125.7,       0.0);
     ( 313471.5, 3996041.5,     125.7,     125.7,       0.0);         ( 313491.5,
3996041.5,     125.7,     125.7,       0.0);
     ( 313511.5, 3996041.5,     125.8,     125.8,       0.0);         ( 313531.5,
3996041.5,     125.8,     125.8,       0.0);
     ( 313991.5, 3996041.5,     125.7,     125.7,       0.0);         ( 314011.5,
3996041.5,     125.8,     125.8,       0.0);
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                                                     *** DISCRETE CARTESIAN RECEPTORS ***
                                                   (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                   (METERS)

     ( 314031.5, 3996041.5,     125.8,     125.8,       0.0);         ( 314051.5,
3996041.5,     125.8,     125.8,       0.0);
     ( 314071.5, 3996041.5,     125.9,     125.9,       0.0);         ( 314091.5,
```

```
3996041.5,     125.9,     125.9,       0.0);
     ( 314111.5, 3996041.5,     126.0,     126.0,       0.0);          ( 314131.5,
3996041.5,     126.0,     126.0,       0.0);
     ( 314151.5, 3996041.5,     126.0,     126.0,       0.0);          ( 314171.5,
3996041.5,     126.0,     126.0,       0.0);
     ( 314191.5, 3996041.5,     126.1,     126.1,       0.0);          ( 314211.5,
3996041.5,     126.1,     126.1,       0.0);
     ( 314231.5, 3996041.5,     126.2,     126.2,       0.0);          ( 314251.5,
3996041.5,     126.2,     126.2,       0.0);
     ( 314271.5, 3996041.5,     126.2,     126.2,       0.0);          ( 313991.5,
3996061.5,     125.7,     125.7,       0.0);
     ( 314011.5, 3996061.5,     125.7,     125.7,       0.0);          ( 314031.5,
3996061.5,     125.8,     125.8,       0.0);
     ( 314051.5, 3996061.5,     125.8,     125.8,       0.0);          ( 314071.5,
3996061.5,     125.9,     125.9,       0.0);
     ( 314091.5, 3996061.5,     125.9,     125.9,       0.0);          ( 314111.5,
3996061.5,     125.9,     125.9,       0.0);
     ( 314131.5, 3996061.5,     126.0,     126.0,       0.0);          ( 314151.5,
3996061.5,     126.0,     126.0,       0.0);
     ( 314171.5, 3996061.5,     126.0,     126.0,       0.0);          ( 314191.5,
3996061.5,     126.1,     126.1,       0.0);
     ( 314211.5, 3996061.5,     126.1,     126.1,       0.0);          ( 314231.5,
3996061.5,     126.1,     126.1,       0.0);
     ( 314251.5, 3996061.5,     126.2,     126.2,       0.0);          ( 314271.5,
3996061.5,     126.2,     126.2,       0.0);
     ( 313991.5, 3996081.5,     125.7,     125.7,       0.0);          ( 314011.5,
3996081.5,     125.7,     125.7,       0.0);
     ( 314031.5, 3996081.5,     125.8,     125.8,       0.0);          ( 314051.5,
3996081.5,     125.8,     125.8,       0.0);
     ( 314071.5, 3996081.5,     125.8,     125.8,       0.0);          ( 314091.5,
3996081.5,     125.9,     125.9,       0.0);
     ( 314111.5, 3996081.5,     125.9,     125.9,       0.0);          ( 314131.5,
3996081.5,     126.0,     126.0,       0.0);
     ( 314151.5, 3996081.5,     126.0,     126.0,       0.0);          ( 314171.5,
3996081.5,     126.0,     126.0,       0.0);
     ( 314191.5, 3996081.5,     126.1,     126.1,       0.0);          ( 314211.5,
3996081.5,     126.1,     126.1,       0.0);
     ( 314231.5, 3996081.5,     126.1,     126.1,       0.0);          ( 314251.5,
3996081.5,     126.2,     126.2,       0.0);
     ( 314271.5, 3996081.5,     126.2,     126.2,       0.0);          ( 313991.5,
3996101.5,     125.7,     125.7,       0.0);
     ( 314011.5, 3996101.5,     125.7,     125.7,       0.0);          ( 314031.5,
3996101.5,     125.8,     125.8,       0.0);
     ( 314051.5, 3996101.5,     125.8,     125.8,       0.0);          ( 314071.5,
3996101.5,     125.8,     125.8,       0.0);
     ( 314091.5, 3996101.5,     125.9,     125.9,       0.0);          ( 314111.5,
3996101.5,     125.9,     125.9,       0.0);
     ( 314131.5, 3996101.5,     125.9,     125.9,       0.0);          ( 314151.5,
3996101.5,     126.0,     126.0,       0.0);
     ( 314171.5, 3996101.5,     126.0,     126.0,       0.0);          ( 314191.5,
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```
3996101.5,     126.0,     126.0,       0.0);
     ( 314211.5, 3996101.5,     126.1,     126.1,       0.0);         ( 314231.5,
3996101.5,     126.1,     126.1,       0.0);
     ( 314251.5, 3996101.5,     126.1,     126.1,       0.0);         ( 314271.5,
3996101.5,     126.2,     126.2,       0.0);
     ( 313991.5, 3996121.5,     125.6,     125.6,       0.0);         ( 314011.5,
3996121.5,     125.7,     125.7,       0.0);
     ( 314031.5, 3996121.5,     125.7,     125.7,       0.0);         ( 314051.5,
3996121.5,     125.8,     125.8,       0.0);
     ( 314071.5, 3996121.5,     125.8,     125.8,       0.0);         ( 314091.5,
3996121.5,     125.8,     125.8,       0.0);
     ( 314111.5, 3996121.5,     125.9,     125.9,       0.0);         ( 314131.5,
3996121.5,     125.9,     125.9,       0.0);
     ( 314151.5, 3996121.5,     125.9,     125.9,       0.0);         ( 314171.5,
3996121.5,     126.0,     126.0,       0.0);
     ( 314191.5, 3996121.5,     126.0,     126.0,       0.0);         ( 314211.5,
3996121.5,     126.0,     126.0,       0.0);
     ( 314231.5, 3996121.5,     126.1,     126.1,       0.0);         ( 314251.5,
3996121.5,     126.1,     126.1,       0.0);
     ( 314271.5, 3996121.5,     126.1,     126.1,       0.0);         ( 313991.5,
3996141.5,     125.6,     125.6,       0.0);
     ( 314011.5, 3996141.5,     125.7,     125.7,       0.0);         ( 314031.5,
3996141.5,     125.7,     125.7,       0.0);
     ( 314051.5, 3996141.5,     125.7,     125.7,       0.0);         ( 314071.5,
3996141.5,     125.8,     125.8,       0.0);
     ( 314091.5, 3996141.5,     125.8,     125.8,       0.0);         ( 314111.5,
3996141.5,     125.8,     125.8,       0.0);
     ( 314131.5, 3996141.5,     125.9,     125.9,       0.0);         ( 314151.5,
3996141.5,     125.9,     125.9,       0.0);
     ( 314171.5, 3996141.5,     126.0,     126.0,       0.0);         ( 314191.5,
3996141.5,     126.0,     126.0,       0.0);
     ( 314211.5, 3996141.5,     126.0,     126.0,       0.0);         ( 314231.5,
3996141.5,     126.1,     126.1,       0.0);
     ( 314251.5, 3996141.5,     126.1,     126.1,       0.0);         ( 314271.5,
3996141.5,     126.1,     126.1,       0.0);
     ( 313991.5, 3996161.5,     125.6,     125.6,       0.0);         ( 314011.5,
3996161.5,     125.6,     125.6,       0.0);
```


*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
     ( 314031.5, 3996161.5,     125.7,     125.7,       0.0);         ( 314051.5,
```

```
3996161.5,     125.7,     125.7,       0.0);
     ( 314071.5, 3996161.5,     125.8,     125.8,       0.0);          ( 314091.5,
3996161.5,     125.8,     125.8,       0.0);
     ( 314111.5, 3996161.5,     125.8,     125.8,       0.0);          ( 314131.5,
3996161.5,     125.9,     125.9,       0.0);
     ( 314151.5, 3996161.5,     125.9,     125.9,       0.0);          ( 314171.5,
3996161.5,     125.9,     125.9,       0.0);
     ( 314191.5, 3996161.5,     126.0,     126.0,       0.0);          ( 314211.5,
3996161.5,     126.0,     126.0,       0.0);
     ( 314231.5, 3996161.5,     126.0,     126.0,       0.0);          ( 314251.5,
3996161.5,     126.1,     126.1,       0.0);
     ( 314271.5, 3996161.5,     126.1,     126.1,       0.0);          ( 313991.5,
3996181.5,     125.6,     125.6,       0.0);
     ( 314011.5, 3996181.5,     125.6,     125.6,       0.0);          ( 314031.5,
3996181.5,     125.7,     125.7,       0.0);
     ( 314051.5, 3996181.5,     125.7,     125.7,       0.0);          ( 314071.5,
3996181.5,     125.7,     125.7,       0.0);
     ( 314091.5, 3996181.5,     125.8,     125.8,       0.0);          ( 314111.5,
3996181.5,     125.8,     125.8,       0.0);
     ( 314131.5, 3996181.5,     125.8,     125.8,       0.0);          ( 314151.5,
3996181.5,     125.9,     125.9,       0.0);
     ( 314171.5, 3996181.5,     125.9,     125.9,       0.0);          ( 314191.5,
3996181.5,     126.0,     126.0,       0.0);
     ( 314211.5, 3996181.5,     126.0,     126.0,       0.0);          ( 314231.5,
3996181.5,     126.0,     126.0,       0.0);
     ( 314251.5, 3996181.5,     126.0,     126.0,       0.0);          ( 314271.5,
3996181.5,     126.1,     126.1,       0.0);
     ( 313991.5, 3996201.5,     125.6,     125.6,       0.0);          ( 314011.5,
3996201.5,     125.6,     125.6,       0.0);
     ( 314031.5, 3996201.5,     125.6,     125.6,       0.0);          ( 314051.5,
3996201.5,     125.7,     125.7,       0.0);
     ( 314071.5, 3996201.5,     125.7,     125.7,       0.0);          ( 314091.5,
3996201.5,     125.7,     125.7,       0.0);
     ( 314111.5, 3996201.5,     125.8,     125.8,       0.0);          ( 314131.5,
3996201.5,     125.8,     125.8,       0.0);
     ( 314151.5, 3996201.5,     125.8,     125.8,       0.0);          ( 314171.5,
3996201.5,     125.9,     125.9,       0.0);
     ( 314191.5, 3996201.5,     125.9,     125.9,       0.0);          ( 314211.5,
3996201.5,     126.0,     126.0,       0.0);
     ( 314231.5, 3996201.5,     126.0,     126.0,       0.0);          ( 314251.5,
3996201.5,     126.0,     126.0,       0.0);
     ( 314271.5, 3996201.5,     126.1,     126.1,       0.0);          ( 313991.5,
3996221.5,     125.5,     125.5,       0.0);
     ( 314011.5, 3996221.5,     125.6,     125.6,       0.0);          ( 314031.5,
3996221.5,     125.6,     125.6,       0.0);
     ( 314051.5, 3996221.5,     125.6,     125.6,       0.0);          ( 314071.5,
3996221.5,     125.7,     125.7,       0.0);
     ( 314091.5, 3996221.5,     125.7,     125.7,       0.0);          ( 314111.5,
3996221.5,     125.8,     125.8,       0.0);
     ( 314131.5, 3996221.5,     125.8,     125.8,       0.0);          ( 314151.5,
```

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3996221.5,     125.8,     125.8,       0.0);
     ( 314171.5, 3996221.5,     125.9,     125.9,       0.0);          ( 314191.5,
3996221.5,     125.9,     125.9,       0.0);
     ( 314211.5, 3996221.5,     125.9,     125.9,       0.0);          ( 314231.5,
3996221.5,     126.0,     126.0,       0.0);
     ( 314251.5, 3996221.5,     126.0,     126.0,       0.0);          ( 314271.5,
3996221.5,     126.0,     126.0,       0.0);
     ( 313991.5, 3996241.5,     125.5,     125.5,       0.0);          ( 314011.5,
3996241.5,     125.6,     125.6,       0.0);
     ( 314031.5, 3996241.5,     125.6,     125.6,       0.0);          ( 314051.5,
3996241.5,     125.6,     125.6,       0.0);
     ( 314071.5, 3996241.5,     125.7,     125.7,       0.0);          ( 314091.5,
3996241.5,     125.7,     125.7,       0.0);
     ( 314111.5, 3996241.5,     125.7,     125.7,       0.0);          ( 314131.5,
3996241.5,     125.8,     125.8,       0.0);
     ( 314151.5, 3996241.5,     125.8,     125.8,       0.0);          ( 314171.5,
3996241.5,     125.8,     125.8,       0.0);
     ( 314191.5, 3996241.5,     125.9,     125.9,       0.0);          ( 314211.5,
3996241.5,     125.9,     125.9,       0.0);
     ( 314231.5, 3996241.5,     125.9,     125.9,       0.0);          ( 314251.5,
3996241.5,     126.0,     126.0,       0.0);
     ( 314271.5, 3996241.5,     126.0,     126.0,       0.0);          ( 313991.5,
3996261.5,     125.5,     125.5,       0.0);
     ( 314011.5, 3996261.5,     125.5,     125.5,       0.0);          ( 314031.5,
3996261.5,     125.6,     125.6,       0.0);
     ( 314051.5, 3996261.5,     125.6,     125.6,       0.0);          ( 314071.5,
3996261.5,     125.6,     125.6,       0.0);
     ( 314091.5, 3996261.5,     125.7,     125.7,       0.0);          ( 314111.5,
3996261.5,     125.7,     125.7,       0.0);
     ( 314131.5, 3996261.5,     125.7,     125.7,       0.0);          ( 314151.5,
3996261.5,     125.8,     125.8,       0.0);
     ( 314171.5, 3996261.5,     125.8,     125.8,       0.0);          ( 314191.5,
3996261.5,     125.8,     125.8,       0.0);
     ( 314211.5, 3996261.5,     125.9,     125.9,       0.0);          ( 314231.5,
3996261.5,     125.9,     125.9,       0.0);
     ( 314251.5, 3996261.5,     126.0,     126.0,       0.0);          ( 314271.5,
3996261.5,     126.0,     126.0,       0.0);
     ( 313991.5, 3996281.5,     125.5,     125.5,       0.0);          ( 314011.5,
3996281.5,     125.5,     125.5,       0.0);
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
     ( 314031.5, 3996281.5,     125.5,     125.5,       0.0);          ( 314051.5,
3996281.5,     125.6,     125.6,       0.0);
     ( 314071.5, 3996281.5,     125.6,     125.6,       0.0);          ( 314091.5,
3996281.5,     125.6,     125.6,       0.0);
     ( 314111.5, 3996281.5,     125.7,     125.7,       0.0);          ( 314131.5,
3996281.5,     125.7,     125.7,       0.0);
     ( 314151.5, 3996281.5,     125.8,     125.8,       0.0);          ( 314171.5,
3996281.5,     125.8,     125.8,       0.0);
     ( 314191.5, 3996281.5,     125.8,     125.8,       0.0);          ( 314211.5,
3996281.5,     125.9,     125.9,       0.0);
     ( 314231.5, 3996281.5,     125.9,     125.9,       0.0);          ( 314251.5,
3996281.5,     125.9,     125.9,       0.0);
     ( 314271.5, 3996281.5,     126.0,     126.0,       0.0);          ( 313811.5,
3996301.5,     125.2,     125.2,       0.0);
     ( 313831.5, 3996301.5,     125.2,     125.2,       0.0);          ( 313851.5,
3996301.5,     125.2,     125.2,       0.0);
     ( 313871.5, 3996301.5,     125.3,     125.3,       0.0);          ( 313891.5,
3996301.5,     125.3,     125.3,       0.0);
     ( 313911.5, 3996301.5,     125.3,     125.3,       0.0);          ( 313931.5,
3996301.5,     125.4,     125.4,       0.0);
     ( 313951.5, 3996301.5,     125.4,     125.4,       0.0);          ( 313971.5,
3996301.5,     125.4,     125.4,       0.0);
     ( 313991.5, 3996301.5,     125.5,     125.5,       0.0);          ( 314011.5,
3996301.5,     125.5,     125.5,       0.0);
     ( 314031.5, 3996301.5,     125.5,     125.5,       0.0);          ( 314051.5,
3996301.5,     125.6,     125.6,       0.0);
     ( 314071.5, 3996301.5,     125.6,     125.6,       0.0);          ( 314091.5,
3996301.5,     125.6,     125.6,       0.0);
     ( 314111.5, 3996301.5,     125.7,     125.7,       0.0);          ( 314131.5,
3996301.5,     125.7,     125.7,       0.0);
     ( 314151.5, 3996301.5,     125.7,     125.7,       0.0);          ( 314171.5,
3996301.5,     125.8,     125.8,       0.0);
     ( 314191.5, 3996301.5,     125.8,     125.8,       0.0);          ( 314211.5,
3996301.5,     125.8,     125.8,       0.0);
     ( 314231.5, 3996301.5,     125.9,     125.9,       0.0);          ( 314251.5,
3996301.5,     125.9,     125.9,       0.0);
     ( 314271.5, 3996301.5,     125.9,     125.9,       0.0);          ( 313811.5,
3996321.5,     125.2,     125.2,       0.0);
     ( 313831.5, 3996321.5,     125.2,     125.2,       0.0);          ( 313851.5,
3996321.5,     125.2,     125.2,       0.0);
     ( 313871.5, 3996321.5,     125.2,     125.2,       0.0);          ( 313891.5,
3996321.5,     125.3,     125.3,       0.0);
     ( 313911.5, 3996321.5,     125.3,     125.3,       0.0);          ( 313931.5,
3996321.5,     125.3,     125.3,       0.0);
     ( 313951.5, 3996321.5,     125.4,     125.4,       0.0);          ( 313971.5,
3996321.5,     125.4,     125.4,       0.0);
     ( 313991.5, 3996321.5,     125.4,     125.4,       0.0);          ( 314011.5,
3996321.5,     125.5,     125.5,       0.0);
     ( 314031.5, 3996321.5,     125.5,     125.5,       0.0);          ( 314051.5,
```

```
3996321.5,     125.5,     125.5,       0.0);
     ( 314071.5, 3996321.5,     125.6,     125.6,       0.0);          ( 314091.5,
3996321.5,     125.6,     125.6,       0.0);
     ( 314111.5, 3996321.5,     125.6,     125.6,       0.0);          ( 314131.5,
3996321.5,     125.7,     125.7,       0.0);
     ( 314151.5, 3996321.5,     125.7,     125.7,       0.0);          ( 314171.5,
3996321.5,     125.7,     125.7,       0.0);
     ( 314191.5, 3996321.5,     125.8,     125.8,       0.0);          ( 314211.5,
3996321.5,     125.8,     125.8,       0.0);
     ( 314231.5, 3996321.5,     125.8,     125.8,       0.0);          ( 314251.5,
3996321.5,     125.9,     125.9,       0.0);
     ( 314271.5, 3996321.5,     125.9,     125.9,       0.0);          ( 313811.5,
3996341.5,     125.1,     125.1,       0.0);
     ( 313831.5, 3996341.5,     125.2,     125.2,       0.0);          ( 313851.5,
3996341.5,     125.2,     125.2,       0.0);
     ( 313871.5, 3996341.5,     125.2,     125.2,       0.0);          ( 313891.5,
3996341.5,     125.3,     125.3,       0.0);
     ( 313911.5, 3996341.5,     125.3,     125.3,       0.0);          ( 313931.5,
3996341.5,     125.3,     125.3,       0.0);
     ( 313951.5, 3996341.5,     125.4,     125.4,       0.0);          ( 313971.5,
3996341.5,     125.4,     125.4,       0.0);
     ( 313991.5, 3996341.5,     125.4,     125.4,       0.0);          ( 314011.5,
3996341.5,     125.5,     125.5,       0.0);
     ( 314031.5, 3996341.5,     125.5,     125.5,       0.0);          ( 314051.5,
3996341.5,     125.5,     125.5,       0.0);
     ( 314071.5, 3996341.5,     125.5,     125.5,       0.0);          ( 314091.5,
3996341.5,     125.6,     125.6,       0.0);
     ( 314111.5, 3996341.5,     125.6,     125.6,       0.0);          ( 314131.5,
3996341.5,     125.6,     125.6,       0.0);
     ( 314151.5, 3996341.5,     125.7,     125.7,       0.0);          ( 314171.5,
3996341.5,     125.7,     125.7,       0.0);
     ( 314191.5, 3996341.5,     125.7,     125.7,       0.0);          ( 314211.5,
3996341.5,     125.8,     125.8,       0.0);
     ( 314231.5, 3996341.5,     125.8,     125.8,       0.0);          ( 314251.5,
3996341.5,     125.8,     125.8,       0.0);
     ( 314271.5, 3996341.5,     125.9,     125.9,       0.0);          ( 313811.5,
3996361.5,     125.1,     125.1,       0.0);
     ( 313831.5, 3996361.5,     125.1,     125.1,       0.0);          ( 313851.5,
3996361.5,     125.2,     125.2,       0.0);
     ( 313871.5, 3996361.5,     125.2,     125.2,       0.0);          ( 313891.5,
3996361.5,     125.2,     125.2,       0.0);
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***

(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(313911.5, 3996361.5, 125.3, 125.3, 0.0); (313931.5, 3996361.5, 125.3, 125.3, 0.0);
(313951.5, 3996361.5, 125.3, 125.3, 0.0); (313971.5, 3996361.5, 125.4, 125.4, 0.0);
(313991.5, 3996361.5, 125.4, 125.4, 0.0); (314011.5, 3996361.5, 125.4, 125.4, 0.0);
(314031.5, 3996361.5, 125.5, 125.5, 0.0); (314051.5, 3996361.5, 125.5, 125.5, 0.0);
(314071.5, 3996361.5, 125.5, 125.5, 0.0); (314091.5, 3996361.5, 125.6, 125.6, 0.0);
(314111.5, 3996361.5, 125.6, 125.6, 0.0); (314131.5, 3996361.5, 125.6, 125.6, 0.0);
(314151.5, 3996361.5, 125.6, 125.6, 0.0); (314171.5, 3996361.5, 125.7, 125.7, 0.0);
(314191.5, 3996361.5, 125.7, 125.7, 0.0); (314211.5, 3996361.5, 125.7, 125.7, 0.0);
(314231.5, 3996361.5, 125.8, 125.8, 0.0); (314251.5, 3996361.5, 125.8, 125.8, 0.0);
(314271.5, 3996361.5, 125.8, 125.8, 0.0); (313731.5, 3996381.5, 125.0, 125.0, 0.0);
(313751.5, 3996381.5, 125.0, 125.0, 0.0); (313771.5, 3996381.5, 125.0, 125.0, 0.0);
(313791.5, 3996381.5, 125.0, 125.0, 0.0); (313811.5, 3996381.5, 125.1, 125.1, 0.0);
(313831.5, 3996381.5, 125.1, 125.1, 0.0); (313851.5, 3996381.5, 125.1, 125.1, 0.0);
(313871.5, 3996381.5, 125.2, 125.2, 0.0); (313891.5, 3996381.5, 125.2, 125.2, 0.0);
(313911.5, 3996381.5, 125.2, 125.2, 0.0); (313931.5, 3996381.5, 125.3, 125.3, 0.0);
(313951.5, 3996381.5, 125.3, 125.3, 0.0); (313971.5, 3996381.5, 125.3, 125.3, 0.0);
(313991.5, 3996381.5, 125.4, 125.4, 0.0); (314011.5, 3996381.5, 125.4, 125.4, 0.0);
(314031.5, 3996381.5, 125.4, 125.4, 0.0); (314051.5, 3996381.5, 125.5, 125.5, 0.0);
(314071.5, 3996381.5, 125.5, 125.5, 0.0); (314091.5, 3996381.5, 125.5, 125.5, 0.0);
(314111.5, 3996381.5, 125.6, 125.6, 0.0); (314131.5, 3996381.5, 125.6, 125.6, 0.0);
(314151.5, 3996381.5, 125.6, 125.6, 0.0); (314171.5, 3996381.5, 125.6, 125.6, 0.0);
(314191.5, 3996381.5, 125.7, 125.7, 0.0); (314211.5, 3996381.5, 125.7, 125.7, 0.0);
(314231.5, 3996381.5, 125.8, 125.8, 0.0); (314251.5, 3996381.5, 125.8, 125.8, 0.0);
(314271.5, 3996381.5, 125.8, 125.8, 0.0); (313731.5,

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3996401.5,     125.0,     125.0,       0.0);
     ( 313751.5, 3996401.5,     125.0,     125.0,       0.0);         ( 313771.5,
3996401.5,     125.0,     125.0,       0.0);
     ( 313791.5, 3996401.5,     125.0,     125.0,       0.0);         ( 313811.5,
3996401.5,     125.0,     125.0,       0.0);
     ( 313831.5, 3996401.5,     125.1,     125.1,       0.0);         ( 313851.5,
3996401.5,     125.1,     125.1,       0.0);
     ( 313871.5, 3996401.5,     125.1,     125.1,       0.0);         ( 313891.5,
3996401.5,     125.2,     125.2,       0.0);
     ( 313911.5, 3996401.5,     125.2,     125.2,       0.0);         ( 313931.5,
3996401.5,     125.2,     125.2,       0.0);
     ( 313951.5, 3996401.5,     125.3,     125.3,       0.0);         ( 313971.5,
3996401.5,     125.3,     125.3,       0.0);
     ( 313991.5, 3996401.5,     125.3,     125.3,       0.0);         ( 314011.5,
3996401.5,     125.4,     125.4,       0.0);
     ( 314031.5, 3996401.5,     125.4,     125.4,       0.0);         ( 314051.5,
3996401.5,     125.4,     125.4,       0.0);
     ( 314071.5, 3996401.5,     125.5,     125.5,       0.0);         ( 314091.5,
3996401.5,     125.5,     125.5,       0.0);
     ( 314111.5, 3996401.5,     125.5,     125.5,       0.0);         ( 314131.5,
3996401.5,     125.6,     125.6,       0.0);
     ( 314151.5, 3996401.5,     125.6,     125.6,       0.0);         ( 314171.5,
3996401.5,     125.6,     125.6,       0.0);
     ( 314191.5, 3996401.5,     125.6,     125.6,       0.0);         ( 314211.5,
3996401.5,     125.7,     125.7,       0.0);
     ( 314231.5, 3996401.5,     125.7,     125.7,       0.0);         ( 314251.5,
3996401.5,     125.8,     125.8,       0.0);
     ( 314271.5, 3996401.5,     125.8,     125.8,       0.0);         ( 313731.5,
3996421.5,     124.9,     124.9,       0.0);
     ( 313751.5, 3996421.5,     124.9,     124.9,       0.0);         ( 313771.5,
3996421.5,     125.0,     125.0,       0.0);
     ( 313791.5, 3996421.5,     125.0,     125.0,       0.0);         ( 313811.5,
3996421.5,     125.0,     125.0,       0.0);
     ( 313831.5, 3996421.5,     125.1,     125.1,       0.0);         ( 313851.5,
3996421.5,     125.1,     125.1,       0.0);
     ( 313871.5, 3996421.5,     125.1,     125.1,       0.0);         ( 313891.5,
3996421.5,     125.1,     125.1,       0.0);
     ( 313911.5, 3996421.5,     125.2,     125.2,       0.0);         ( 313931.5,
3996421.5,     125.2,     125.2,       0.0);
     ( 313951.5, 3996421.5,     125.2,     125.2,       0.0);         ( 313971.5,
3996421.5,     125.3,     125.3,       0.0);
     ( 313991.5, 3996421.5,     125.3,     125.3,       0.0);         ( 314011.5,
3996421.5,     125.3,     125.3,       0.0);
```

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
     ( 314031.5, 3996421.5,     125.4,     125.4,       0.0);         ( 314051.5,
3996421.5,     125.4,     125.4,       0.0);
     ( 314071.5, 3996421.5,     125.5,     125.5,       0.0);         ( 314091.5,
3996421.5,     125.5,     125.5,       0.0);
     ( 314111.5, 3996421.5,     125.5,     125.5,       0.0);         ( 314131.5,
3996421.5,     125.5,     125.5,       0.0);
     ( 314151.5, 3996421.5,     125.6,     125.6,       0.0);         ( 314171.5,
3996421.5,     125.6,     125.6,       0.0);
     ( 314191.5, 3996421.5,     125.6,     125.6,       0.0);         ( 314211.5,
3996421.5,     125.7,     125.7,       0.0);
     ( 314231.5, 3996421.5,     125.7,     125.7,       0.0);         ( 314251.5,
3996421.5,     125.7,     125.7,       0.0);
     ( 314271.5, 3996421.5,     125.8,     125.8,       0.0);         ( 313751.5,
3996441.5,     124.9,     124.9,       0.0);
     ( 313771.5, 3996441.5,     124.9,     124.9,       0.0);         ( 313791.5,
3996441.5,     125.0,     125.0,       0.0);
     ( 313811.5, 3996441.5,     125.0,     125.0,       0.0);         ( 313831.5,
3996441.5,     125.0,     125.0,       0.0);
     ( 313851.5, 3996441.5,     125.1,     125.1,       0.0);         ( 313871.5,
3996441.5,     125.1,     125.1,       0.0);
     ( 313891.5, 3996441.5,     125.1,     125.1,       0.0);         ( 313911.5,
3996441.5,     125.2,     125.2,       0.0);
     ( 313931.5, 3996441.5,     125.2,     125.2,       0.0);         ( 313951.5,
3996441.5,     125.2,     125.2,       0.0);
     ( 313971.5, 3996441.5,     125.3,     125.3,       0.0);         ( 313991.5,
3996441.5,     125.3,     125.3,       0.0);
     ( 314011.5, 3996441.5,     125.3,     125.3,       0.0);         ( 314031.5,
3996441.5,     125.3,     125.3,       0.0);
     ( 314051.5, 3996441.5,     125.4,     125.4,       0.0);         ( 314071.5,
3996441.5,     125.4,     125.4,       0.0);
     ( 314091.5, 3996441.5,     125.5,     125.5,       0.0);         ( 314111.5,
3996441.5,     125.5,     125.5,       0.0);
     ( 314131.5, 3996441.5,     125.5,     125.5,       0.0);         ( 314151.5,
3996441.5,     125.5,     125.5,       0.0);
     ( 314171.5, 3996441.5,     125.6,     125.6,       0.0);         ( 314191.5,
3996441.5,     125.6,     125.6,       0.0);
     ( 314211.5, 3996441.5,     125.6,     125.6,       0.0);         ( 314231.5,
3996441.5,     125.7,     125.7,       0.0);
     ( 314251.5, 3996441.5,     125.7,     125.7,       0.0);         ( 314271.5,
3996441.5,     125.7,     125.7,       0.0);
     ( 313751.5, 3996461.5,     124.9,     124.9,       0.0);         ( 313771.5,
3996461.5,     124.9,     124.9,       0.0);
     ( 313791.5, 3996461.5,     124.9,     124.9,       0.0);         ( 313811.5,
3996461.5,     125.0,     125.0,       0.0);
     ( 313831.5, 3996461.5,     125.0,     125.0,       0.0);         ( 313851.5,
```

```
3996461.5,     125.0,     125.0,       0.0);
     ( 313871.5, 3996461.5,     125.1,     125.1,       0.0);          ( 313891.5,
3996461.5,     125.1,     125.1,       0.0);
     ( 313911.5, 3996461.5,     125.1,     125.1,       0.0);          ( 313931.5,
3996461.5,     125.2,     125.2,       0.0);
     ( 313951.5, 3996461.5,     125.2,     125.2,       0.0);          ( 313971.5,
3996461.5,     125.2,     125.2,       0.0);
     ( 313991.5, 3996461.5,     125.3,     125.3,       0.0);          ( 314011.5,
3996461.5,     125.3,     125.3,       0.0);
     ( 314031.5, 3996461.5,     125.3,     125.3,       0.0);          ( 314051.5,
3996461.5,     125.3,     125.3,       0.0);
     ( 314071.5, 3996461.5,     125.4,     125.4,       0.0);          ( 314091.5,
3996461.5,     125.4,     125.4,       0.0);
     ( 314111.5, 3996461.5,     125.5,     125.5,       0.0);          ( 314131.5,
3996461.5,     125.5,     125.5,       0.0);
     ( 314151.5, 3996461.5,     125.5,     125.5,       0.0);          ( 314171.5,
3996461.5,     125.5,     125.5,       0.0);
     ( 314191.5, 3996461.5,     125.6,     125.6,       0.0);          ( 314211.5,
3996461.5,     125.6,     125.6,       0.0);
     ( 314231.5, 3996461.5,     125.6,     125.6,       0.0);          ( 314251.5,
3996461.5,     125.7,     125.7,       0.0);
     ( 314271.5, 3996461.5,     125.7,     125.7,       0.0);          ( 313751.5,
3996481.5,     124.8,     124.8,       0.0);
     ( 313771.5, 3996481.5,     124.9,     124.9,       0.0);          ( 313791.5,
3996481.5,     124.9,     124.9,       0.0);
     ( 313811.5, 3996481.5,     124.9,     124.9,       0.0);          ( 313831.5,
3996481.5,     125.0,     125.0,       0.0);
     ( 313851.5, 3996481.5,     125.0,     125.0,       0.0);          ( 313871.5,
3996481.5,     125.0,     125.0,       0.0);
     ( 313891.5, 3996481.5,     125.1,     125.1,       0.0);          ( 313911.5,
3996481.5,     125.1,     125.1,       0.0);
     ( 313931.5, 3996481.5,     125.1,     125.1,       0.0);          ( 313951.5,
3996481.5,     125.2,     125.2,       0.0);
     ( 313971.5, 3996481.5,     125.2,     125.2,       0.0);          ( 313991.5,
3996481.5,     125.2,     125.2,       0.0);
     ( 314011.5, 3996481.5,     125.3,     125.3,       0.0);          ( 314031.5,
3996481.5,     125.3,     125.3,       0.0);
     ( 314051.5, 3996481.5,     125.3,     125.3,       0.0);          ( 314071.5,
3996481.5,     125.4,     125.4,       0.0);
     ( 314091.5, 3996481.5,     125.4,     125.4,       0.0);          ( 314111.5,
3996481.5,     125.4,     125.4,       0.0);
     ( 314131.5, 3996481.5,     125.5,     125.5,       0.0);          ( 314151.5,
3996481.5,     125.5,     125.5,       0.0);
     ( 314171.5, 3996481.5,     125.5,     125.5,       0.0);          ( 314191.5,
3996481.5,     125.5,     125.5,       0.0);
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
     ( 314211.5, 3996481.5,     125.6,     125.6,       0.0);          ( 314231.5,
3996481.5,     125.6,     125.6,       0.0);
     ( 314251.5, 3996481.5,     125.6,     125.6,       0.0);          ( 314271.5,
3996481.5,     125.7,     125.7,       0.0);
     ( 313771.5, 3996501.5,     124.8,     124.8,       0.0);          ( 313791.5,
3996501.5,     124.9,     124.9,       0.0);
     ( 313811.5, 3996501.5,     124.9,     124.9,       0.0);          ( 313831.5,
3996501.5,     125.0,     125.0,       0.0);
     ( 313851.5, 3996501.5,     125.0,     125.0,       0.0);          ( 313871.5,
3996501.5,     125.0,     125.0,       0.0);
     ( 313891.5, 3996501.5,     125.0,     125.0,       0.0);          ( 313911.5,
3996501.5,     125.1,     125.1,       0.0);
     ( 313931.5, 3996501.5,     125.1,     125.1,       0.0);          ( 313951.5,
3996501.5,     125.1,     125.1,       0.0);
     ( 313971.5, 3996501.5,     125.2,     125.2,       0.0);          ( 313991.5,
3996501.5,     125.2,     125.2,       0.0);
     ( 314011.5, 3996501.5,     125.2,     125.2,       0.0);          ( 314031.5,
3996501.5,     125.3,     125.3,       0.0);
     ( 314051.5, 3996501.5,     125.3,     125.3,       0.0);          ( 314071.5,
3996501.5,     125.3,     125.3,       0.0);
     ( 314091.5, 3996501.5,     125.4,     125.4,       0.0);          ( 314111.5,
3996501.5,     125.4,     125.4,       0.0);
     ( 314131.5, 3996501.5,     125.4,     125.4,       0.0);          ( 314151.5,
3996501.5,     125.5,     125.5,       0.0);
     ( 314171.5, 3996501.5,     125.5,     125.5,       0.0);          ( 314191.5,
3996501.5,     125.5,     125.5,       0.0);
     ( 314211.5, 3996501.5,     125.6,     125.6,       0.0);          ( 314231.5,
3996501.5,     125.6,     125.6,       0.0);
     ( 314251.5, 3996501.5,     125.6,     125.6,       0.0);          ( 314271.5,
3996501.5,     125.6,     125.6,       0.0);
     ( 313771.5, 3996521.5,     124.8,     124.8,       0.0);          ( 313791.5,
3996521.5,     124.8,     124.8,       0.0);
     ( 313811.5, 3996521.5,     124.9,     124.9,       0.0);          ( 313831.5,
3996521.5,     124.9,     124.9,       0.0);
     ( 313851.5, 3996521.5,     125.0,     125.0,       0.0);          ( 313871.5,
3996521.5,     125.0,     125.0,       0.0);
     ( 313891.5, 3996521.5,     125.0,     125.0,       0.0);          ( 313911.5,
3996521.5,     125.0,     125.0,       0.0);
     ( 313931.5, 3996521.5,     125.1,     125.1,       0.0);          ( 313951.5,
3996521.5,     125.1,     125.1,       0.0);
     ( 313971.5, 3996521.5,     125.1,     125.1,       0.0);          ( 313991.5,
3996521.5,     125.2,     125.2,       0.0);
     ( 314011.5, 3996521.5,     125.2,     125.2,       0.0);          ( 314031.5,
```

```
3996521.5,     125.2,     125.2,       0.0);
     ( 314051.5, 3996521.5,     125.3,     125.3,       0.0);         ( 314071.5,
3996521.5,     125.3,     125.3,       0.0);
     ( 314091.5, 3996521.5,     125.3,     125.3,       0.0);         ( 314111.5,
3996521.5,     125.4,     125.4,       0.0);
     ( 314131.5, 3996521.5,     125.4,     125.4,       0.0);         ( 314151.5,
3996521.5,     125.4,     125.4,       0.0);
     ( 314171.5, 3996521.5,     125.5,     125.5,       0.0);         ( 314191.5,
3996521.5,     125.5,     125.5,       0.0);
     ( 314211.5, 3996521.5,     125.5,     125.5,       0.0);         ( 314231.5,
3996521.5,     125.6,     125.6,       0.0);
     ( 314251.5, 3996521.5,     125.6,     125.6,       0.0);         ( 314271.5,
3996521.5,     125.6,     125.6,       0.0);
     ( 313791.5, 3996541.5,     124.8,     124.8,       0.0);         ( 313811.5,
3996541.5,     124.9,     124.9,       0.0);
     ( 313831.5, 3996541.5,     124.9,     124.9,       0.0);         ( 313851.5,
3996541.5,     124.9,     124.9,       0.0);
     ( 313871.5, 3996541.5,     125.0,     125.0,       0.0);         ( 313891.5,
3996541.5,     125.0,     125.0,       0.0);
     ( 313911.5, 3996541.5,     125.0,     125.0,       0.0);         ( 313931.5,
3996541.5,     125.1,     125.1,       0.0);
     ( 313951.5, 3996541.5,     125.1,     125.1,       0.0);         ( 313971.5,
3996541.5,     125.1,     125.1,       0.0);
     ( 313991.5, 3996541.5,     125.1,     125.1,       0.0);         ( 314011.5,
3996541.5,     125.2,     125.2,       0.0);
     ( 314031.5, 3996541.5,     125.2,     125.2,       0.0);         ( 314051.5,
3996541.5,     125.2,     125.2,       0.0);
     ( 314071.5, 3996541.5,     125.3,     125.3,       0.0);         ( 314091.5,
3996541.5,     125.3,     125.3,       0.0);
     ( 314111.5, 3996541.5,     125.3,     125.3,       0.0);         ( 314131.5,
3996541.5,     125.4,     125.4,       0.0);
     ( 314151.5, 3996541.5,     125.4,     125.4,       0.0);         ( 314171.5,
3996541.5,     125.5,     125.5,       0.0);
     ( 314191.5, 3996541.5,     125.5,     125.5,       0.0);         ( 314211.5,
3996541.5,     125.5,     125.5,       0.0);
     ( 314231.5, 3996541.5,     125.5,     125.5,       0.0);         ( 314251.5,
3996541.5,     125.6,     125.6,       0.0);
     ( 314271.5, 3996541.5,     125.6,     125.6,       0.0);         ( 313791.5,
3996561.5,     124.8,     124.8,       0.0);
     ( 313811.5, 3996561.5,     124.8,     124.8,       0.0);         ( 313831.5,
3996561.5,     124.9,     124.9,       0.0);
     ( 313851.5, 3996561.5,     124.9,     124.9,       0.0);         ( 313871.5,
3996561.5,     124.9,     124.9,       0.0);
     ( 313891.5, 3996561.5,     125.0,     125.0,       0.0);         ( 313911.5,
3996561.5,     125.0,     125.0,       0.0);
     ( 313931.5, 3996561.5,     125.0,     125.0,       0.0);         ( 313951.5,
3996561.5,     125.1,     125.1,       0.0);
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(313971.5, 3996561.5, 125.1, 125.1, 0.0); (313991.5, 3996561.5, 125.1, 125.1, 0.0);
(314011.5, 3996561.5, 125.2, 125.2, 0.0); (314031.5, 3996561.5, 125.2, 125.2, 0.0);
(314051.5, 3996561.5, 125.2, 125.2, 0.0); (314071.5, 3996561.5, 125.2, 125.2, 0.0);
(314091.5, 3996561.5, 125.3, 125.3, 0.0); (314111.5, 3996561.5, 125.3, 125.3, 0.0);
(314131.5, 3996561.5, 125.3, 125.3, 0.0); (314151.5, 3996561.5, 125.4, 125.4, 0.0);
(314171.5, 3996561.5, 125.4, 125.4, 0.0); (314191.5, 3996561.5, 125.5, 125.5, 0.0);
(314211.5, 3996561.5, 125.5, 125.5, 0.0); (314231.5, 3996561.5, 125.5, 125.5, 0.0);
(314251.5, 3996561.5, 125.5, 125.5, 0.0); (314271.5, 3996561.5, 125.6, 125.6, 0.0);
(313791.5, 3996581.5, 124.8, 124.8, 0.0); (313811.5, 3996581.5, 124.8, 124.8, 0.0);
(313831.5, 3996581.5, 124.9, 124.9, 0.0); (313851.5, 3996581.5, 124.9, 124.9, 0.0);
(313871.5, 3996581.5, 124.9, 124.9, 0.0); (313891.5, 3996581.5, 125.0, 125.0, 0.0);
(313911.5, 3996581.5, 125.0, 125.0, 0.0); (313931.5, 3996581.5, 125.0, 125.0, 0.0);
(313951.5, 3996581.5, 125.0, 125.0, 0.0); (313971.5, 3996581.5, 125.1, 125.1, 0.0);
(313991.5, 3996581.5, 125.1, 125.1, 0.0); (314011.5, 3996581.5, 125.1, 125.1, 0.0);
(314031.5, 3996581.5, 125.2, 125.2, 0.0); (314051.5, 3996581.5, 125.2, 125.2, 0.0);
(314071.5, 3996581.5, 125.2, 125.2, 0.0); (314091.5, 3996581.5, 125.3, 125.3, 0.0);
(314111.5, 3996581.5, 125.3, 125.3, 0.0); (314131.5, 3996581.5, 125.3, 125.3, 0.0);
(314151.5, 3996581.5, 125.3, 125.3, 0.0); (314171.5, 3996581.5, 125.4, 125.4, 0.0);
(314191.5, 3996581.5, 125.4, 125.4, 0.0); (314211.5, 3996581.5, 125.5, 125.5, 0.0);
(314231.5, 3996581.5, 125.5, 125.5, 0.0); (314251.5, 3996581.5, 125.5, 125.5, 0.0);
(314271.5, 3996581.5, 125.5, 125.5, 0.0); (313529.1,

3996060.3, 125.8, 125.8, 0.0);
(313510.2, 3996059.1, 125.8, 125.8, 0.0); (313491.4, 3996062.8, 125.8, 125.8, 0.0);

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

```
                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***

   Surface file:   C:\Users\kheck\Desktop\Porterville Met
Data\Porterville_2006-2009.SFC             Met Version:  18081
   Profile file:   C:\Users\kheck\Desktop\Porterville Met
Data\Porterville_2006-2009.PFL
   Surface format: FREE

   Profile format: FREE

   Surface station no.:    23149                  Upper air station no.:    23230
                  Name: PORTERVILLE                                Name:
OAKLAND/WSO_AP
                  Year:   2006                                     Year:   2006

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -
 06 01 01   1 01  -24.8  0.249 -9.000 -9.000 -999.  297.     68.0  0.03   0.76
1.00    3.86  101.   10.0  280.1    2.0
 06 01 01   1 02  -24.7  0.249 -9.000 -9.000 -999.  298.     68.0  0.03   0.76
1.00    3.86  108.   10.0  281.1    2.0
 06 01 01   1 03  -21.4  0.215 -9.000 -9.000 -999.  240.     50.9  0.03   0.76
1.00    3.36  104.   10.0  280.1    2.0
 06 01 01   1 04  -24.7  0.249 -9.000 -9.000 -999.  297.     68.0  0.03   0.76
1.00    3.86  113.   10.0  281.1    2.0
 06 01 01   1 05  -24.7  0.249 -9.000 -9.000 -999.  298.     68.0  0.03   0.76
1.00    3.86  113.   10.0  281.1    2.0
 06 01 01   1 06  -25.0  0.252 -9.000 -9.000 -999.  303.     69.7  0.03   0.76
1.00    3.86  132.   10.0  281.1    2.0
 06 01 01   1 07  -28.4  0.286 -9.000 -9.000 -999.  366.     89.8  0.03   0.76
1.00    4.36  145.   10.0  281.1    2.0
 06 01 01   1 08  -18.7  0.205 -9.000 -9.000 -999.  225.     46.2  0.02   0.76
0.61    3.36  163.   10.0  280.1    2.0
 06 01 01   1 09   11.0 -9.000 -9.000 -9.000   95. -999. -99999.0  0.03   0.76
0.34    0.00    0.   10.0  282.1    2.0
 06 01 01   1 10   48.2 -9.000 -9.000 -9.000  186. -999. -99999.0  0.03   0.76
0.25    0.00    0.   10.0  284.1    2.0
 06 01 01   1 11   81.6  0.277  0.863  0.005  280.  350.    -23.1  0.04   0.76
0.22    3.36    4.   10.0  284.1    2.0
 06 01 01   1 12   96.6  0.230  0.994  0.005  360.  265.    -11.1  0.02   0.76
0.21    2.86  306.   10.0  284.1    2.0
 06 01 01   1 13  101.2 -9.000 -9.000 -9.000  608. -999. -99999.0  0.03   0.76
0.21    0.00    0.   10.0  284.1    2.0
 06 01 01   1 14   17.7  0.212  0.685  0.005  644.  234.    -47.5  0.03   0.76
0.22    2.86  119.   10.0  284.1    2.0
 06 01 01   1 15   10.3  0.274  0.579  0.005  666.  344.   -176.6  0.03   0.76
```

```
0.25    3.86  142.   10.0  284.1    2.0
 06 01 01   1 16    0.1  0.263  0.123  0.005  668.  323.  -8888.0  0.03   0.76
0.35    3.86  104.   10.0  284.1    2.0
 06 01 01   1 17  -11.7  0.144 -9.000 -9.000 -999.  139.     22.8  0.02   0.76
0.62    2.36   41.   10.0  283.1    2.0
 06 01 01   1 18   -6.7  0.108 -9.000 -9.000 -999.   85.     16.3  0.03   0.76
1.00    1.76   97.   10.0  284.1    2.0
 06 01 01   1 19   -6.5  0.105 -9.000 -9.000 -999.   81.     15.7  0.02   0.76
1.00    1.76   44.   10.0  284.1    2.0
 06 01 01   1 20  -17.2  0.177 -9.000 -9.000 -999.  178.     34.3  0.02   0.76
1.00    2.86  317.   10.0  284.1    2.0
 06 01 01   1 21 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.03   0.76
1.00    0.00    0.   10.0  284.1    2.0
 06 01 01   1 22  -11.9  0.144 -9.000 -9.000 -999.  131.     22.7  0.02   0.76
1.00    2.36   32.   10.0  284.1    2.0
 06 01 01   1 23  -18.8  0.192 -9.000 -9.000 -999.  202.     40.6  0.04   0.76
1.00    2.86   20.   10.0  284.1    2.0
 06 01 01   1 24  -17.2  0.177 -9.000 -9.000 -999.  178.     34.3  0.02   0.76
1.00    2.86   50.   10.0  285.1    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 06 01 01 01   10.0 1  101.    3.86   280.2   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\LombardiPorterville\LombardiPorterville.isc     ***        07/23/21
 *** AERMET - VERSION  18081 ***   ***
                       ***        09:19:05

                                  PAGE  29
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   4
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     PAREA1      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         313271.45    3995341.55        0.00111                      313291.45
3995341.55        0.00114
```

313311.45 3995341.55 0.00118 313331.45
3995341.55 0.00121
313351.45 3995341.55 0.00125 313371.45
3995341.55 0.00130
313391.45 3995341.55 0.00135 313411.45
3995341.55 0.00141
313431.45 3995341.55 0.00148 313451.45
3995341.55 0.00155
313471.45 3995341.55 0.00163 313491.45
3995341.55 0.00172
313511.45 3995341.55 0.00182 313531.45
3995341.55 0.00194
313551.45 3995341.55 0.00207 313571.45
3995341.55 0.00222
313591.45 3995341.55 0.00239 313611.45
3995341.55 0.00258
313631.45 3995341.55 0.00279 313651.45
3995341.55 0.00303
313671.45 3995341.55 0.00330 313691.45
3995341.55 0.00358
313711.45 3995341.55 0.00388 313731.45
3995341.55 0.00419
313751.45 3995341.55 0.00451 313771.45
3995341.55 0.00483
313791.45 3995341.55 0.00515 313811.45
3995341.55 0.00547
313831.45 3995341.55 0.00578 313851.45
3995341.55 0.00609
313871.45 3995341.55 0.00638 313891.45
3995341.55 0.00667
313911.45 3995341.55 0.00694 313931.45
3995341.55 0.00719
313951.45 3995341.55 0.00742 313971.45
3995341.55 0.00762
313991.45 3995341.55 0.00779 314011.45
3995341.55 0.00792
314031.45 3995341.55 0.00801 314051.45
3995341.55 0.00806
314071.45 3995341.55 0.00808 314091.45
3995341.55 0.00806
314111.45 3995341.55 0.00801 314131.45
3995341.55 0.00792
314151.45 3995341.55 0.00781 314171.45
3995341.55 0.00768
314191.45 3995341.55 0.00754 314211.45
3995341.55 0.00737
314231.45 3995341.55 0.00720 314251.45
3995341.55 0.00702
314271.45 3995341.55 0.00683 313271.45
3995361.55 0.00117

313291.45   3995361.55   0.00120   313311.45
3995361.55   0.00124
313331.45   3995361.55   0.00127   313351.45
3995361.55   0.00132
313371.45   3995361.55   0.00136   313391.45
3995361.55   0.00142
313411.45   3995361.55   0.00148   313431.45
3995361.55   0.00155
313451.45   3995361.55   0.00162   313471.45
3995361.55   0.00171
313491.45   3995361.55   0.00181   313511.45
3995361.55   0.00192
313531.45   3995361.55   0.00204   313551.45
3995361.55   0.00219
313571.45   3995361.55   0.00235   313591.45
3995361.55   0.00254
313611.45   3995361.55   0.00275   313631.45
3995361.55   0.00299
313651.45   3995361.55   0.00326   313671.45
3995361.55   0.00355
313691.45   3995361.55   0.00387   313711.45
3995361.55   0.00420
313731.45   3995361.55   0.00454   313751.45
3995361.55   0.00490
313771.45   3995361.55   0.00525   313791.45
3995361.55   0.00560
313811.45   3995361.55   0.00594   313831.45
3995361.55   0.00628

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   4 YEARS FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)   Y-COORD (M)   CONC
- -

313851.45 3995361.55 0.00661 313871.45
3995361.55 0.00693
313891.45 3995361.55 0.00723 313911.45
3995361.55 0.00752
313931.45 3995361.55 0.00779 313951.45
3995361.55 0.00803
313971.45 3995361.55 0.00823 313991.45
3995361.55 0.00840
314011.45 3995361.55 0.00852 314031.45
3995361.55 0.00860
314051.45 3995361.55 0.00864 314071.45
3995361.55 0.00863
314091.45 3995361.55 0.00859 314111.45
3995361.55 0.00850
314131.45 3995361.55 0.00839 314151.45
3995361.55 0.00825
314171.45 3995361.55 0.00809 314191.45
3995361.55 0.00791
314211.45 3995361.55 0.00772 314231.45
3995361.55 0.00752
314251.45 3995361.55 0.00731 314271.45
3995361.55 0.00709
313271.45 3995381.55 0.00124 313291.45
3995381.55 0.00127
313311.45 3995381.55 0.00130 313331.45
3995381.55 0.00134
313351.45 3995381.55 0.00139 313371.45
3995381.55 0.00144
313391.45 3995381.55 0.00149 313411.45
3995381.55 0.00155
313431.45 3995381.55 0.00163 313451.45
3995381.55 0.00171
313471.45 3995381.55 0.00180 313491.45
3995381.55 0.00190
313511.45 3995381.55 0.00202 313531.45
3995381.55 0.00216
313551.45 3995381.55 0.00231 313571.45
3995381.55 0.00249
313591.45 3995381.55 0.00270 313611.45
3995381.55 0.00294
313631.45 3995381.55 0.00321 313651.45
3995381.55 0.00351
313671.45 3995381.55 0.00385 313691.45
3995381.55 0.00420
313711.45 3995381.55 0.00457 313731.45
3995381.55 0.00495
313751.45 3995381.55 0.00534 313771.45
3995381.55 0.00573
313791.45 3995381.55 0.00611 313811.45
3995381.55 0.00648

313831.45   3995381.55   0.00685   313851.45
3995381.55   0.00720
313871.45   3995381.55   0.00755   313891.45
3995381.55   0.00787
313911.45   3995381.55   0.00818   313931.45
3995381.55   0.00846
313951.45   3995381.55   0.00870   313971.45
3995381.55   0.00891
313991.45   3995381.55   0.00908   314011.45
3995381.55   0.00919
314031.45   3995381.55   0.00926   314051.45
3995381.55   0.00927
314071.45   3995381.55   0.00924   314091.45
3995381.55   0.00916
314111.45   3995381.55   0.00904   314131.45
3995381.55   0.00889
314151.45   3995381.55   0.00871   314171.45
3995381.55   0.00851
314191.45   3995381.55   0.00830   314211.45
3995381.55   0.00807
314231.45   3995381.55   0.00784   314251.45
3995381.55   0.00760
314271.45   3995381.55   0.00736   313271.45
3995401.55   0.00131
313291.45   3995401.55   0.00134   313311.45
3995401.55   0.00138
313331.45   3995401.55   0.00142   313351.45
3995401.55   0.00147
313371.45   3995401.55   0.00152   313391.45
3995401.55   0.00157

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   4 YEARS FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC

- -
313411.45 3995401.55 0.00164 313431.45
3995401.55 0.00172
313451.45 3995401.55 0.00180 313471.45
3995401.55 0.00190
313491.45 3995401.55 0.00201 313511.45
3995401.55 0.00214
313531.45 3995401.55 0.00229 313551.45
3995401.55 0.00246
313571.45 3995401.55 0.00266 313591.45
3995401.55 0.00289
313611.45 3995401.55 0.00316 313631.45
3995401.55 0.00347
313651.45 3995401.55 0.00381 313671.45
3995401.55 0.00419
313691.45 3995401.55 0.00459 313711.45
3995401.55 0.00500
313731.45 3995401.55 0.00543 313751.45
3995401.55 0.00586
313771.45 3995401.55 0.00628 313791.45
3995401.55 0.00670
313811.45 3995401.55 0.00710 313831.45
3995401.55 0.00750
313851.45 3995401.55 0.00788 313871.45
3995401.55 0.00824
313891.45 3995401.55 0.00859 313911.45
3995401.55 0.00892
313931.45 3995401.55 0.00921 313951.45
3995401.55 0.00947
313971.45 3995401.55 0.00968 313991.45
3995401.55 0.00984
314011.45 3995401.55 0.00994 314031.45
3995401.55 0.00998
314051.45 3995401.55 0.00997 314071.45
3995401.55 0.00989
314091.45 3995401.55 0.00977 314111.45
3995401.55 0.00961
314131.45 3995401.55 0.00942 314151.45
3995401.55 0.00920
314171.45 3995401.55 0.00896 314191.45
3995401.55 0.00870
314211.45 3995401.55 0.00844 314231.45
3995401.55 0.00817
314251.45 3995401.55 0.00790 314271.45
3995401.55 0.00764
313271.45 3995421.55 0.00140 313291.45
3995421.55 0.00143
313311.45 3995421.55 0.00147 313331.45
3995421.55 0.00151

313351.45 3995421.55 0.00156 313371.45
3995421.55 0.00161
313391.45 3995421.55 0.00167 313411.45
3995421.55 0.00174
313431.45 3995421.55 0.00182 313451.45
3995421.55 0.00191
313471.45 3995421.55 0.00201 313491.45
3995421.55 0.00213
313511.45 3995421.55 0.00227 313531.45
3995421.55 0.00243
313551.45 3995421.55 0.00262 313571.45
3995421.55 0.00284
313591.45 3995421.55 0.00311 313611.45
3995421.55 0.00341
313631.45 3995421.55 0.00376 313651.45
3995421.55 0.00415
313671.45 3995421.55 0.00458 313691.45
3995421.55 0.00504
313711.45 3995421.55 0.00551 313731.45
3995421.55 0.00599
313751.45 3995421.55 0.00646 313771.45
3995421.55 0.00692
313791.45 3995421.55 0.00738 313811.45
3995421.55 0.00781
313831.45 3995421.55 0.00824 313851.45
3995421.55 0.00865
313871.45 3995421.55 0.00904 313891.45
3995421.55 0.00941
313911.45 3995421.55 0.00976 313931.45
3995421.55 0.01007
313951.45 3995421.55 0.01033 313971.45
3995421.55 0.01055

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
313991.45	3995421.55	0.01070	314011.45	3995421.55	0.01078
314031.45	3995421.55	0.01079	314051.45	3995421.55	0.01073
314071.45	3995421.55	0.01061	314091.45	3995421.55	0.01044
314111.45	3995421.55	0.01023	314131.45	3995421.55	0.00998
314151.45	3995421.55	0.00971	314171.45	3995421.55	0.00942
314191.45	3995421.55	0.00912	314211.45	3995421.55	0.00882
314231.45	3995421.55	0.00851	314251.45	3995421.55	0.00821
314271.45	3995421.55	0.00791	313271.45	3995441.55	0.00150
313291.45	3995441.55	0.00153	313311.45	3995441.55	0.00157
313331.45	3995441.55	0.00161	313351.45	3995441.55	0.00166
313371.45	3995441.55	0.00171	313391.45	3995441.55	0.00178
313411.45	3995441.55	0.00185	313431.45	3995441.55	0.00193
313451.45	3995441.55	0.00203	313471.45	3995441.55	0.00214
313491.45	3995441.55	0.00227	313511.45	3995441.55	0.00242
313531.45	3995441.55	0.00259	313551.45	3995441.55	0.00281
313571.45	3995441.55	0.00306	313591.45	3995441.55	0.00335
313611.45	3995441.55	0.00371	313631.45	3995441.55	0.00411
313651.45	3995441.55	0.00456	313671.45	3995441.55	0.00506
313691.45	3995441.55	0.00557	313711.45	3995441.55	0.00611
313731.45	3995441.55	0.00664	313751.45	3995441.55	0.00717
313771.45	3995441.55	0.00767	313791.45	3995441.55	0.00816
313811.45	3995441.55	0.00863	313831.45	3995441.55	0.00909
313851.45	3995441.55	0.00953	313871.45	3995441.55	0.00995

313891.45 3995441.55 0.01035 313911.45
3995441.55 0.01072
313931.45 3995441.55 0.01105 313951.45
3995441.55 0.01132
313971.45 3995441.55 0.01153 313991.45
3995441.55 0.01167
314011.45 3995441.55 0.01172 314031.45
3995441.55 0.01168
314051.45 3995441.55 0.01157 314071.45
3995441.55 0.01140
314091.45 3995441.55 0.01116 314111.45
3995441.55 0.01089
314131.45 3995441.55 0.01058 314151.45
3995441.55 0.01025
314171.45 3995441.55 0.00990 314191.45
3995441.55 0.00956
314211.45 3995441.55 0.00921 314231.45
3995441.55 0.00886
314251.45 3995441.55 0.00852 314271.45
3995441.55 0.00819
313271.45 3995461.55 0.00161 313291.45
3995461.55 0.00165
313311.45 3995461.55 0.00169 313331.45
3995461.55 0.00173
313351.45 3995461.55 0.00178 313371.45
3995461.55 0.00184
313391.45 3995461.55 0.00190 313411.45
3995461.55 0.00198
313431.45 3995461.55 0.00206 313451.45
3995461.55 0.00217
313471.45 3995461.55 0.00228 313491.45
3995461.55 0.00242
313511.45 3995461.55 0.00259 313531.45
3995461.55 0.00278

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
313551.45	3995461.55	0.00302	313571.45	3995461.55	0.00330
313591.45	3995461.55	0.00365	313611.45	3995461.55	0.00405
313631.45	3995461.55	0.00453	313651.45	3995461.55	0.00505
313671.45	3995461.55	0.00562	313691.45	3995461.55	0.00622
313711.45	3995461.55	0.00683	313731.45	3995461.55	0.00742
313751.45	3995461.55	0.00800	313771.45	3995461.55	0.00855
313791.45	3995461.55	0.00908	313811.45	3995461.55	0.00958
313831.45	3995461.55	0.01007	313851.45	3995461.55	0.01054
313871.45	3995461.55	0.01099	313891.45	3995461.55	0.01143
313911.45	3995461.55	0.01182	313931.45	3995461.55	0.01218
313951.45	3995461.55	0.01246	313971.45	3995461.55	0.01266
313991.45	3995461.55	0.01277	314011.45	3995461.55	0.01278
314031.45	3995461.55	0.01269	314051.45	3995461.55	0.01250
314071.45	3995461.55	0.01225	314091.45	3995461.55	0.01194
314111.45	3995461.55	0.01158	314131.45	3995461.55	0.01120
314151.45	3995461.55	0.01081	314171.45	3995461.55	0.01040
314191.45	3995461.55	0.01000	314211.45	3995461.55	0.00960
314231.45	3995461.55	0.00921	314251.45	3995461.55	0.00883
314271.45	3995461.55	0.00847	313271.45	3995481.55	0.00175
313291.45	3995481.55	0.00179	313311.45	3995481.55	0.00183
313331.45	3995481.55	0.00187	313351.45	3995481.55	0.00193
313371.45	3995481.55	0.00198	313391.45	3995481.55	0.00205

313411.45   3995481.55   0.00213   313431.45
3995481.55   0.00222
313451.45   3995481.55   0.00233   313471.45
3995481.55   0.00246
313491.45   3995481.55   0.00260   313511.45
3995481.55   0.00278
313531.45   3995481.55   0.00300   313551.45
3995481.55   0.00327
313571.45   3995481.55   0.00359   313591.45
3995481.55   0.00399
313611.45   3995481.55   0.00447   313631.45
3995481.55   0.00503
313651.45   3995481.55   0.00565   313671.45
3995481.55   0.00632
313691.45   3995481.55   0.00701   313711.45
3995481.55   0.00770
313731.45   3995481.55   0.00837   313751.45
3995481.55   0.00900
313771.45   3995481.55   0.00959   313791.45
3995481.55   0.01015
313811.45   3995481.55   0.01068   313831.45
3995481.55   0.01120
313851.45   3995481.55   0.01171   313871.45
3995481.55   0.01221
313891.45   3995481.55   0.01268   313911.45
3995481.55   0.01312
313931.45   3995481.55   0.01349   313951.45
3995481.55   0.01378
313971.45   3995481.55   0.01397   313991.45
3995481.55   0.01404
314011.45   3995481.55   0.01398   314031.45
3995481.55   0.01381
314051.45   3995481.55   0.01353   314071.45
3995481.55   0.01318
314091.45   3995481.55   0.01277   314111.45
3995481.55   0.01232

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   4 YEARS FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
314131.45	3995481.55	0.01186	314151.45	3995481.55	0.01138
314171.45	3995481.55	0.01091	314191.45	3995481.55	0.01045
314211.45	3995481.55	0.01000	314231.45	3995481.55	0.00956
314251.45	3995481.55	0.00915	314271.45	3995481.55	0.00875
313271.45	3995501.55	0.00191	313291.45	3995501.55	0.00195
313311.45	3995501.55	0.00200	313331.45	3995501.55	0.00204
313351.45	3995501.55	0.00210	313371.45	3995501.55	0.00216
313391.45	3995501.55	0.00223	313411.45	3995501.55	0.00232
313431.45	3995501.55	0.00241	313451.45	3995501.55	0.00252
313471.45	3995501.55	0.00266	313491.45	3995501.55	0.00282
313511.45	3995501.55	0.00302	313531.45	3995501.55	0.00326
313551.45	3995501.55	0.00356	313571.45	3995501.55	0.00394
313591.45	3995501.55	0.00441	313611.45	3995501.55	0.00499
313631.45	3995501.55	0.00566	313651.45	3995501.55	0.00640
313671.45	3995501.55	0.00719	313691.45	3995501.55	0.00800
313711.45	3995501.55	0.00878	313731.45	3995501.55	0.00952
313751.45	3995501.55	0.01021	313771.45	3995501.55	0.01083
313791.45	3995501.55	0.01142	313811.45	3995501.55	0.01198
313831.45	3995501.55	0.01253	313851.45	3995501.55	0.01309
313871.45	3995501.55	0.01364	313891.45	3995501.55	0.01416
313911.45	3995501.55	0.01464	313931.45	3995501.55	0.01504

313951.45   3995501.55   0.01534   313971.45
3995501.55   0.01550
313991.45   3995501.55   0.01551   314011.45
3995501.55   0.01535
314031.45   3995501.55   0.01506   314051.45
3995501.55   0.01467
314071.45   3995501.55   0.01419   314091.45
3995501.55   0.01366
314111.45   3995501.55   0.01310   314131.45
3995501.55   0.01254
314151.45   3995501.55   0.01198   314171.45
3995501.55   0.01143
314191.45   3995501.55   0.01091   314211.45
3995501.55   0.01040
314231.45   3995501.55   0.00991   314251.45
3995501.55   0.00945
314271.45   3995501.55   0.00902   313271.45
3995521.55   0.00211
313291.45   3995521.55   0.00215   313311.45
3995521.55   0.00220
313331.45   3995521.55   0.00225   313351.45
3995521.55   0.00231
313371.45   3995521.55   0.00238   313391.45
3995521.55   0.00245
313411.45   3995521.55   0.00254   313431.45
3995521.55   0.00264
313451.45   3995521.55   0.00276   313471.45
3995521.55   0.00291
313491.45   3995521.55   0.00308   313511.45
3995521.55   0.00330
313531.45   3995521.55   0.00357   313551.45
3995521.55   0.00392
313571.45   3995521.55   0.00436   313591.45
3995521.55   0.00494
313611.45   3995521.55   0.00564   313631.45
3995521.55   0.00646
313651.45   3995521.55   0.00737   313671.45
3995521.55   0.00831

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   4 YEARS FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
313691.45	3995521.55	0.00925	313711.45	3995521.55	0.01014
313731.45	3995521.55	0.01096	313751.45	3995521.55	0.01168
313771.45	3995521.55	0.01233	313791.45	3995521.55	0.01292
313811.45	3995521.55	0.01351	313831.45	3995521.55	0.01411
313851.45	3995521.55	0.01472	313871.45	3995521.55	0.01534
313891.45	3995521.55	0.01594	313911.45	3995521.55	0.01647
313931.45	3995521.55	0.01690	313951.45	3995521.55	0.01720
313971.45	3995521.55	0.01731	313991.45	3995521.55	0.01722
314011.45	3995521.55	0.01693	314031.45	3995521.55	0.01648
314051.45	3995521.55	0.01591	314071.45	3995521.55	0.01527
314091.45	3995521.55	0.01460	314111.45	3995521.55	0.01391
314131.45	3995521.55	0.01324	314151.45	3995521.55	0.01259
314171.45	3995521.55	0.01196	314191.45	3995521.55	0.01136
314211.45	3995521.55	0.01080	314231.45	3995521.55	0.01026
314251.45	3995521.55	0.00976	314271.45	3995521.55	0.00928
313271.45	3995541.55	0.00235	313291.45	3995541.55	0.00240
313311.45	3995541.55	0.00245	313331.45	3995541.55	0.00251
313351.45	3995541.55	0.00258	313371.45	3995541.55	0.00265
313391.45	3995541.55	0.00273	313411.45	3995541.55	0.00282
313431.45	3995541.55	0.00293	313451.45	3995541.55	0.00306

313471.45 3995541.55 0.00322 313491.45
3995541.55 0.00341
313511.45 3995541.55 0.00365 313531.45
3995541.55 0.00395
313551.45 3995541.55 0.00436 313571.45
3995541.55 0.00490
313591.45 3995541.55 0.00561 313611.45
3995541.55 0.00650
313631.45 3995541.55 0.00753 313651.45
3995541.55 0.00864
313671.45 3995541.55 0.00978 313691.45
3995541.55 0.01088
313711.45 3995541.55 0.01189 313731.45
3995541.55 0.01276
313751.45 3995541.55 0.01350 313771.45
3995541.55 0.01413
313791.45 3995541.55 0.01473 313811.45
3995541.55 0.01533
313831.45 3995541.55 0.01599 313851.45
3995541.55 0.01670
313871.45 3995541.55 0.01742 313891.45
3995541.55 0.01811
313911.45 3995541.55 0.01872 313931.45
3995541.55 0.01918
313951.45 3995541.55 0.01946 313971.45
3995541.55 0.01948
313991.45 3995541.55 0.01924 314011.45
3995541.55 0.01874
314031.45 3995541.55 0.01806 314051.45
3995541.55 0.01727
314071.45 3995541.55 0.01643 314091.45
3995541.55 0.01558
314111.45 3995541.55 0.01475 314131.45
3995541.55 0.01395
314151.45 3995541.55 0.01320 314171.45
3995541.55 0.01248
314191.45 3995541.55 0.01181 314211.45
3995541.55 0.01118
314231.45 3995541.55 0.01060 314251.45
3995541.55 0.01005

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
314271.45	3995541.55	0.00954	313271.45	3995561.55	0.00264
313291.45	3995561.55	0.00270	313311.45	3995561.55	0.00277
313331.45	3995561.55	0.00283	313351.45	3995561.55	0.00291
313371.45	3995561.55	0.00299	313391.45	3995561.55	0.00308
313411.45	3995561.55	0.00319	313431.45	3995561.55	0.00331
313451.45	3995561.55	0.00345	313471.45	3995561.55	0.00362
313491.45	3995561.55	0.00383	313511.45	3995561.55	0.00409
313531.45	3995561.55	0.00444	313551.45	3995561.55	0.00492
313571.45	3995561.55	0.00559	313591.45	3995561.55	0.00651
313611.45	3995561.55	0.00767	313631.45	3995561.55	0.00900
313651.45	3995561.55	0.01040	313671.45	3995561.55	0.01179
313691.45	3995561.55	0.01307	313711.45	3995561.55	0.01419
313731.45	3995561.55	0.01508	313751.45	3995561.55	0.01577
313771.45	3995561.55	0.01635	313791.45	3995561.55	0.01691
313811.45	3995561.55	0.01754	313831.45	3995561.55	0.01829
313851.45	3995561.55	0.01915	313871.45	3995561.55	0.02003
313891.45	3995561.55	0.02086	313911.45	3995561.55	0.02155
313931.45	3995561.55	0.02205	313951.45	3995561.55	0.02228
313971.45	3995561.55	0.02215	313991.45	3995561.55	0.02165

314011.45   3995561.55   0.02083   314031.45
3995561.55   0.01982
314051.45   3995561.55   0.01874   314071.45
3995561.55   0.01765
314091.45   3995561.55   0.01660   314111.45
3995561.55   0.01560
314131.45   3995561.55   0.01467   314151.45
3995561.55   0.01380
314171.45   3995561.55   0.01299   314191.45
3995561.55   0.01225
314211.45   3995561.55   0.01156   314231.45
3995561.55   0.01092
314251.45   3995561.55   0.01033   314271.45
3995561.55   0.00978
313271.45   3995581.55   0.00301   313291.45
3995581.55   0.00308
313311.45   3995581.55   0.00316   313331.45
3995581.55   0.00324
313351.45   3995581.55   0.00333   313371.45
3995581.55   0.00343
313391.45   3995581.55   0.00354   313411.45
3995581.55   0.00366
313431.45   3995581.55   0.00380   313451.45
3995581.55   0.00396
313471.45   3995581.55   0.00415   313491.45
3995581.55   0.00438
313511.45   3995581.55   0.00468   313531.45
3995581.55   0.00508
313551.45   3995581.55   0.00566   313571.45
3995581.55   0.00653
313591.45   3995581.55   0.00778   313611.45
3995581.55   0.00937
313631.45   3995581.55   0.01114   313651.45
3995581.55   0.01293
313671.45   3995581.55   0.01462   313691.45
3995581.55   0.01612
313711.45   3995581.55   0.01732   313731.45
3995581.55   0.01814
313751.45   3995581.55   0.01867   313771.45
3995581.55   0.01910
313791.45   3995581.55   0.01959   313811.45
3995581.55   0.02027

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
313831.45	3995581.55	0.02121	313851.45	3995581.55	0.02233
313871.45	3995581.55	0.02345	313891.45	3995581.55	0.02446
313911.45	3995581.55	0.02526	313931.45	3995581.55	0.02578
313951.45	3995581.55	0.02592	313971.45	3995581.55	0.02553
313991.45	3995581.55	0.02457	314011.45	3995581.55	0.02323
314031.45	3995581.55	0.02176	314051.45	3995581.55	0.02029
314071.45	3995581.55	0.01891	314091.45	3995581.55	0.01762
314111.45	3995581.55	0.01644	314131.45	3995581.55	0.01537
314151.45	3995581.55	0.01438	314171.45	3995581.55	0.01348
314191.45	3995581.55	0.01266	314211.45	3995581.55	0.01191
314231.45	3995581.55	0.01122	314251.45	3995581.55	0.01058
314271.45	3995581.55	0.01000	313271.45	3995601.55	0.00345
313291.45	3995601.55	0.00355	313311.45	3995601.55	0.00365
313331.45	3995601.55	0.00376	313351.45	3995601.55	0.00388
313371.45	3995601.55	0.00401	313391.45	3995601.55	0.00415
313411.45	3995601.55	0.00430	313431.45	3995601.55	0.00448
313451.45	3995601.55	0.00467	313471.45	3995601.55	0.00489
313491.45	3995601.55	0.00517	313511.45	3995601.55	0.00551

313531.45 3995601.55 0.00598 313551.45
3995601.55 0.00670
313571.45 3995601.55 0.00789 313591.45
3995601.55 0.00974
313611.45 3995601.55 0.01205 313631.45
3995601.55 0.01447
313651.45 3995601.55 0.01677 313671.45
3995601.55 0.01884
313691.45 3995601.55 0.02058 313711.45
3995601.55 0.02178
313731.45 3995601.55 0.02229 313751.45
3995601.55 0.02243
313771.45 3995601.55 0.02258 313791.45
3995601.55 0.02297
313811.45 3995601.55 0.02379 313831.45
3995601.55 0.02514
313851.45 3995601.55 0.02674 313871.45
3995601.55 0.02823
313891.45 3995601.55 0.02947 313911.45
3995601.55 0.03039
313931.45 3995601.55 0.03093 313951.45
3995601.55 0.03091
313971.45 3995601.55 0.02996 313991.45
3995601.55 0.02812
314011.45 3995601.55 0.02595 314031.45
3995601.55 0.02383
314051.45 3995601.55 0.02189 314071.45
3995601.55 0.02016
314091.45 3995601.55 0.01863 314111.45
3995601.55 0.01726
314131.45 3995601.55 0.01603 314151.45
3995601.55 0.01493
314171.45 3995601.55 0.01394 314191.45
3995601.55 0.01305
314211.45 3995601.55 0.01223 314231.45
3995601.55 0.01149
314251.45 3995601.55 0.01082 314271.45
3995601.55 0.01020
313271.45 3995621.55 0.00399 313291.45
3995621.55 0.00412
313311.45 3995621.55 0.00426 313331.45
3995621.55 0.00442
313351.45 3995621.55 0.00458 313371.45
3995621.55 0.00476

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
313391.45	3995621.55	0.00496	313411.45	3995621.55	0.00518
313431.45	3995621.55	0.00542	313451.45	3995621.55	0.00569
313471.45	3995621.55	0.00599	313491.45	3995621.55	0.00635
313511.45	3995621.55	0.00678	313531.45	3995621.55	0.00735
313551.45	3995621.55	0.00826	313571.45	3995621.55	0.01007
313591.45	3995621.55	0.01318	313611.45	3995621.55	0.01676
313631.45	3995621.55	0.02010	313651.45	3995621.55	0.02304
313671.45	3995621.55	0.02556	313691.45	3995621.55	0.02757
313711.45	3995621.55	0.02851	313731.45	3995621.55	0.02806
313751.45	3995621.55	0.02739	313771.45	3995621.55	0.02716
313791.45	3995621.55	0.02748	313811.45	3995621.55	0.02872
313831.45	3995621.55	0.03112	313851.45	3995621.55	0.03361
313871.45	3995621.55	0.03561	313891.45	3995621.55	0.03708
313911.45	3995621.55	0.03809	313931.45	3995621.55	0.03863
313951.45	3995621.55	0.03831	313971.45	3995621.55	0.03601
313991.45	3995621.55	0.03233	314011.45	3995621.55	0.02886
314031.45	3995621.55	0.02592	314051.45	3995621.55	0.02346

314071.45 3995621.55 0.02137 314091.45
3995621.55 0.01957
314111.45 3995621.55 0.01801 314131.45
3995621.55 0.01664
314151.45 3995621.55 0.01543 314171.45
3995621.55 0.01436
314191.45 3995621.55 0.01339 314211.45
3995621.55 0.01252
314231.45 3995621.55 0.01174 314251.45
3995621.55 0.01102
314271.45 3995621.55 0.01037 313271.45
3995641.55 0.00463
313291.45 3995641.55 0.00482 313311.45
3995641.55 0.00501
313331.45 3995641.55 0.00523 313351.45
3995641.55 0.00547
313371.45 3995641.55 0.00574 313391.45
3995641.55 0.00603
313411.45 3995641.55 0.00636 313431.45
3995641.55 0.00674
313451.45 3995641.55 0.00717 313471.45
3995641.55 0.00767
313491.45 3995641.55 0.00825 313511.45
3995641.55 0.00895
313531.45 3995641.55 0.00980 313551.45
3995641.55 0.01108
313571.45 3995641.55 0.01428 313591.45
3995641.55 0.02051
313611.45 3995641.55 0.02613 313631.45
3995641.55 0.03054
313651.45 3995641.55 0.03403 313671.45
3995641.55 0.03684
313691.45 3995641.55 0.03905 313711.45
3995641.55 0.03915
313731.45 3995641.55 0.03591 313751.45
3995641.55 0.03414
313771.45 3995641.55 0.03375 313791.45
3995641.55 0.03420
313811.45 3995641.55 0.03670 313971.45
3995641.55 0.04390
313991.45 3995641.55 0.03676 314011.45
3995641.55 0.03167
314031.45 3995641.55 0.02787 314051.45
3995641.55 0.02489
314071.45 3995641.55 0.02245 314091.45
3995641.55 0.02042

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
314111.45	3995641.55	0.01869	314131.45	3995641.55	0.01719
314151.45	3995641.55	0.01587	314171.45	3995641.55	0.01472
314191.45	3995641.55	0.01369	314211.45	3995641.55	0.01277
314231.45	3995641.55	0.01194	314251.45	3995641.55	0.01120
314271.45	3995641.55	0.01052	313271.45	3995661.55	0.00539
313291.45	3995661.55	0.00564	313311.45	3995661.55	0.00592
313331.45	3995661.55	0.00622	313351.45	3995661.55	0.00656
313371.45	3995661.55	0.00695	313391.45	3995661.55	0.00739
313411.45	3995661.55	0.00791	313431.45	3995661.55	0.00852
313451.45	3995661.55	0.00924	313471.45	3995661.55	0.01014
313491.45	3995661.55	0.01129	313511.45	3995661.55	0.01282
313531.45	3995661.55	0.01498	313971.45	3995661.55	0.05043
313991.45	3995661.55	0.04044	314011.45	3995661.55	0.03405
314031.45	3995661.55	0.02954	314051.45	3995661.55	0.02611
314071.45	3995661.55	0.02339	314091.45	3995661.55	0.02115
314111.45	3995661.55	0.01926	314131.45	3995661.55	0.01765

314151.45 3995661.55 0.01625 314171.45
3995661.55 0.01503
314191.45 3995661.55 0.01394 314211.45
3995661.55 0.01298
314231.45 3995661.55 0.01212 314251.45
3995661.55 0.01134
314271.45 3995661.55 0.01063 313271.45
3995681.55 0.00627
313291.45 3995681.55 0.00660 313311.45
3995681.55 0.00697
313331.45 3995681.55 0.00739 313351.45
3995681.55 0.00787
313371.45 3995681.55 0.00842 313391.45
3995681.55 0.00906
313411.45 3995681.55 0.00982 313431.45
3995681.55 0.01075
313451.45 3995681.55 0.01191 313471.45
3995681.55 0.01342
313491.45 3995681.55 0.01546 313511.45
3995681.55 0.01843
313531.45 3995681.55 0.02309 313971.45
3995681.55 0.05472
313991.45 3995681.55 0.04312 314011.45
3995681.55 0.03589
314031.45 3995681.55 0.03087 314051.45
3995681.55 0.02711
314071.45 3995681.55 0.02415 314091.45
3995681.55 0.02174
314111.45 3995681.55 0.01973 314131.45
3995681.55 0.01803
314151.45 3995681.55 0.01656 314171.45
3995681.55 0.01528
314191.45 3995681.55 0.01415 314211.45
3995681.55 0.01315
314231.45 3995681.55 0.01226 314251.45
3995681.55 0.01145
314271.45 3995681.55 0.01072 313271.45
3995701.55 0.00726
313291.45 3995701.55 0.00769 313311.45
3995701.55 0.00817
313331.45 3995701.55 0.00872 313351.45
3995701.55 0.00935
313371.45 3995701.55 0.01010 313391.45
3995701.55 0.01097
313411.45 3995701.55 0.01203 313431.45
3995701.55 0.01334
313451.45 3995701.55 0.01500 313471.45
3995701.55 0.01718

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
313491.45	3995701.55	0.02017	313511.45	3995701.55	0.02448
313531.45	3995701.55	0.03108	313971.45	3995701.55	0.05786
313991.45	3995701.55	0.04516	314011.45	3995701.55	0.03731
314031.45	3995701.55	0.03191	314051.45	3995701.55	0.02789
314071.45	3995701.55	0.02475	314091.45	3995701.55	0.02221
314111.45	3995701.55	0.02010	314131.45	3995701.55	0.01832
314151.45	3995701.55	0.01680	314171.45	3995701.55	0.01547
314191.45	3995701.55	0.01431	314211.45	3995701.55	0.01328
314231.45	3995701.55	0.01236	314251.45	3995701.55	0.01153
314271.45	3995701.55	0.01079	313271.45	3995721.55	0.00834
313291.45	3995721.55	0.00887	313311.45	3995721.55	0.00948
313331.45	3995721.55	0.01018	313351.45	3995721.55	0.01098
313371.45	3995721.55	0.01193	313391.45	3995721.55	0.01306
313411.45	3995721.55	0.01443	313431.45	3995721.55	0.01612
313451.45	3995721.55	0.01826	313471.45	3995721.55	0.02105

313491.45 3995721.55 0.02482 313511.45
3995721.55 0.03013
313531.45 3995721.55 0.03799 313971.45
3995721.55 0.06025
313991.45 3995721.55 0.04674 314011.45
3995721.55 0.03842
314031.45 3995721.55 0.03271 314051.45
3995721.55 0.02849
314071.45 3995721.55 0.02520 314091.45
3995721.55 0.02256
314111.45 3995721.55 0.02038 314131.45
3995721.55 0.01854
314151.45 3995721.55 0.01697 314171.45
3995721.55 0.01561
314191.45 3995721.55 0.01442 314211.45
3995721.55 0.01336
314231.45 3995721.55 0.01242 314251.45
3995721.55 0.01158
314271.45 3995721.55 0.01082 313271.45
3995741.55 0.00949
313291.45 3995741.55 0.01014 313311.45
3995741.55 0.01088
313331.45 3995741.55 0.01172 313351.45
3995741.55 0.01270
313371.45 3995741.55 0.01386 313391.45
3995741.55 0.01523
313411.45 3995741.55 0.01689 313431.45
3995741.55 0.01893
313451.45 3995741.55 0.02149 313471.45
3995741.55 0.02478
313491.45 3995741.55 0.02916 313511.45
3995741.55 0.03520
313531.45 3995741.55 0.04391 313971.45
3995741.55 0.06208
313991.45 3995741.55 0.04798 314011.45
3995741.55 0.03926
314031.45 3995741.55 0.03330 314051.45
3995741.55 0.02891
314071.45 3995741.55 0.02552 314091.45
3995741.55 0.02280
314111.45 3995741.55 0.02056 314131.45
3995741.55 0.01868
314151.45 3995741.55 0.01708 314171.45
3995741.55 0.01569
314191.45 3995741.55 0.01448 314211.45
3995741.55 0.01341
314231.45 3995741.55 0.01245 314251.45
3995741.55 0.01160
314271.45 3995741.55 0.01083 313271.45
3995761.55 0.01070

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
313291.45	3995761.55	0.01146	313311.45	3995761.55	0.01232
313331.45	3995761.55	0.01331	313351.45	3995761.55	0.01446
313371.45	3995761.55	0.01581	313391.45	3995761.55	0.01740
313411.45	3995761.55	0.01932	313431.45	3995761.55	0.02166
313451.45	3995761.55	0.02457	313471.45	3995761.55	0.02828
313491.45	3995761.55	0.03313	313511.45	3995761.55	0.03973
313531.45	3995761.55	0.04901	313971.45	3995761.55	0.06348
313991.45	3995761.55	0.04889	314011.45	3995761.55	0.03986
314031.45	3995761.55	0.03370	314051.45	3995761.55	0.02918
314071.45	3995761.55	0.02571	314091.45	3995761.55	0.02294
314111.45	3995761.55	0.02066	314131.45	3995761.55	0.01876
314151.45	3995761.55	0.01714	314171.45	3995761.55	0.01573
314191.45	3995761.55	0.01450	314211.45	3995761.55	0.01342
314231.45	3995761.55	0.01245	314251.45	3995761.55	0.01159

314271.45 3995761.55 0.01081 313271.45
3995781.55 0.01193
313291.45 3995781.55 0.01279 313311.45
3995781.55 0.01378
313331.45 3995781.55 0.01490 313351.45
3995781.55 0.01621
313371.45 3995781.55 0.01773 313391.45
3995781.55 0.01952
313411.45 3995781.55 0.02167 313431.45
3995781.55 0.02427
313451.45 3995781.55 0.02747 313471.45
3995781.55 0.03151
313491.45 3995781.55 0.03674 313511.45
3995781.55 0.04375
313531.45 3995781.55 0.05345 313971.45
3995781.55 0.06448
313991.45 3995781.55 0.04949 314011.45
3995781.55 0.04022
314031.45 3995781.55 0.03391 314051.45
3995781.55 0.02931
314071.45 3995781.55 0.02579 314091.45
3995781.55 0.02299
314111.45 3995781.55 0.02070 314131.45
3995781.55 0.01878
314151.45 3995781.55 0.01714 314171.45
3995781.55 0.01573
314191.45 3995781.55 0.01449 314211.45
3995781.55 0.01339
314231.45 3995781.55 0.01242 314251.45
3995781.55 0.01155
314271.45 3995781.55 0.01077 313271.45
3995801.55 0.01316
313291.45 3995801.55 0.01412 313311.45
3995801.55 0.01522
313331.45 3995801.55 0.01647 313351.45
3995801.55 0.01792
313371.45 3995801.55 0.01959 313391.45
3995801.55 0.02156
313411.45 3995801.55 0.02390 313431.45
3995801.55 0.02671
313451.45 3995801.55 0.03016 313471.45
3995801.55 0.03448
313491.45 3995801.55 0.04001 313511.45
3995801.55 0.04732
313531.45 3995801.55 0.05731 313971.45
3995801.55 0.06506
313991.45 3995801.55 0.04975 314011.45
3995801.55 0.04030
314031.45 3995801.55 0.03392 314051.45
3995801.55 0.02929

314071.45   3995801.55   0.02576   314091.45
3995801.55   0.02296

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   4 YEARS FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
314111.45	3995801.55	0.02067	314131.45	3995801.55	0.01875
314151.45	3995801.55	0.01711	314171.45	3995801.55	0.01568
314191.45	3995801.55	0.01444	314211.45	3995801.55	0.01334
314231.45	3995801.55	0.01236	314251.45	3995801.55	0.01149
314271.45	3995801.55	0.01071	313271.45	3995821.55	0.01437
313291.45	3995821.55	0.01543	313311.45	3995821.55	0.01663
313331.45	3995821.55	0.01799	313351.45	3995821.55	0.01956
313371.45	3995821.55	0.02137	313391.45	3995821.55	0.02349
313411.45	3995821.55	0.02599	313431.45	3995821.55	0.02899
313451.45	3995821.55	0.03264	313471.45	3995821.55	0.03717
313491.45	3995821.55	0.04294	313511.45	3995821.55	0.05048
313531.45	3995821.55	0.06065	313971.45	3995821.55	0.06514
313991.45	3995821.55	0.04959	314011.45	3995821.55	0.04008

314031.45 3995821.55 0.03372 314051.45
3995821.55 0.02914
314071.45 3995821.55 0.02565 314091.45
3995821.55 0.02287
314111.45 3995821.55 0.02059 314131.45
3995821.55 0.01867
314151.45 3995821.55 0.01703 314171.45
3995821.55 0.01561
314191.45 3995821.55 0.01436 314211.45
3995821.55 0.01326
314231.45 3995821.55 0.01228 314251.45
3995821.55 0.01141
314271.45 3995821.55 0.01062 313271.45
3995841.55 0.01556
313291.45 3995841.55 0.01670 313311.45
3995841.55 0.01799
313331.45 3995841.55 0.01945 313351.45
3995841.55 0.02112
313371.45 3995841.55 0.02306 313391.45
3995841.55 0.02530
313411.45 3995841.55 0.02795 313431.45
3995841.55 0.03109
313451.45 3995841.55 0.03491 313471.45
3995841.55 0.03962
313491.45 3995841.55 0.04556 313511.45
3995841.55 0.05326
313531.45 3995841.55 0.06355 313971.45
3995841.55 0.06446
313991.45 3995841.55 0.04888 314011.45
3995841.55 0.03953
314031.45 3995841.55 0.03334 314051.45
3995841.55 0.02888
314071.45 3995841.55 0.02546 314091.45
3995841.55 0.02273
314111.45 3995841.55 0.02047 314131.45
3995841.55 0.01857
314151.45 3995841.55 0.01693 314171.45
3995841.55 0.01551
314191.45 3995841.55 0.01426 314211.45
3995841.55 0.01316
314231.45 3995841.55 0.01218 314251.45
3995841.55 0.01130
314271.45 3995841.55 0.01052 313271.45
3995861.55 0.01670
313291.45 3995861.55 0.01792 313311.45
3995861.55 0.01929
313331.45 3995861.55 0.02083 313351.45
3995861.55 0.02260
313371.45 3995861.55 0.02464 313391.45
3995861.55 0.02699

313411.45 3995861.55 0.02976 313431.45
3995861.55 0.03304
313451.45 3995861.55 0.03698 313471.45
3995861.55 0.04182

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
313491.45	3995861.55	0.04789	313511.45	3995861.55	0.05570
313531.45	3995861.55	0.06604	313991.45	3995861.55	0.04748
314011.45	3995861.55	0.03866	314031.45	3995861.55	0.03281
314051.45	3995861.55	0.02855	314071.45	3995861.55	0.02524
314091.45	3995861.55	0.02256	314111.45	3995861.55	0.02034
314131.45	3995861.55	0.01844	314151.45	3995861.55	0.01681
314171.45	3995861.55	0.01539	314191.45	3995861.55	0.01414
314211.45	3995861.55	0.01304	314231.45	3995861.55	0.01206
314251.45	3995861.55	0.01119	314271.45	3995861.55	0.01041
313271.45	3995881.55	0.01779	313291.45	3995881.55	0.01908
313311.45	3995881.55	0.02052	313331.45	3995881.55	0.02214
313351.45	3995881.55	0.02399	313371.45	3995881.55	0.02611

313391.45 3995881.55 0.02857 313411.45
3995881.55 0.03143
313431.45 3995881.55 0.03481 313451.45
3995881.55 0.03887
313471.45 3995881.55 0.04381 313491.45
3995881.55 0.04996
313511.45 3995881.55 0.05784 313531.45
3995881.55 0.06822
313991.45 3995881.55 0.04545 314011.45
3995881.55 0.03763
314031.45 3995881.55 0.03225 314051.45
3995881.55 0.02822
314071.45 3995881.55 0.02502 314091.45
3995881.55 0.02240
314111.45 3995881.55 0.02019 314131.45
3995881.55 0.01831
314151.45 3995881.55 0.01668 314171.45
3995881.55 0.01526
314191.45 3995881.55 0.01401 314211.45
3995881.55 0.01290
314231.45 3995881.55 0.01193 314251.45
3995881.55 0.01105
314271.45 3995881.55 0.01028 313291.45
3995901.55 0.02017
313311.45 3995901.55 0.02168 313331.45
3995901.55 0.02337
313351.45 3995901.55 0.02529 313371.45
3995901.55 0.02749
313391.45 3995901.55 0.03002 313411.45
3995901.55 0.03297
313431.45 3995901.55 0.03644 313451.45
3995901.55 0.04058
313471.45 3995901.55 0.04561 313491.45
3995901.55 0.05182
313511.45 3995901.55 0.05971 313531.45
3995901.55 0.07010
313991.45 3995901.55 0.04355 314011.45
3995901.55 0.03677
314031.45 3995901.55 0.03181 314051.45
3995901.55 0.02796
314071.45 3995901.55 0.02484 314091.45
3995901.55 0.02225
314111.45 3995901.55 0.02005 314131.45
3995901.55 0.01817
314151.45 3995901.55 0.01653 314171.45
3995901.55 0.01511
314191.45 3995901.55 0.01386 314211.45
3995901.55 0.01275
314231.45 3995901.55 0.01178 314251.45
3995901.55 0.01091

314271.45 3995901.55 0.01013 313311.45
3995921.55 0.02277
313331.45 3995921.55 0.02452 313351.45
3995921.55 0.02650
313371.45 3995921.55 0.02876 313391.45
3995921.55 0.03136

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
313411.45	3995921.55	0.03438	313431.45	3995921.55	0.03792
313451.45	3995921.55	0.04213	313471.45	3995921.55	0.04721
313491.45	3995921.55	0.05347	313511.45	3995921.55	0.06138
313531.45	3995921.55	0.07174	313991.45	3995921.55	0.04249
314011.45	3995921.55	0.03630	314031.45	3995921.55	0.03158
314051.45	3995921.55	0.02782	314071.45	3995921.55	0.02472
314091.45	3995921.55	0.02213	314111.45	3995921.55	0.01992
314131.45	3995921.55	0.01802	314151.45	3995921.55	0.01638
314171.45	3995921.55	0.01495	314191.45	3995921.55	0.01369
314211.45	3995921.55	0.01259	314231.45	3995921.55	0.01161
314251.45	3995921.55	0.01075	314271.45	3995921.55	0.00998

313331.45 3995941.55 0.02559 313351.45
3995941.55 0.02762
313371.45 3995941.55 0.02994 313391.45
3995941.55 0.03259
313411.45 3995941.55 0.03567 313431.45
3995941.55 0.03927
313451.45 3995941.55 0.04352 313471.45
3995941.55 0.04864
313491.45 3995941.55 0.05494 313511.45
3995941.55 0.06287
313531.45 3995941.55 0.07316 313991.45
3995941.55 0.04207
314011.45 3995941.55 0.03618 314031.45
3995941.55 0.03154
314051.45 3995941.55 0.02778 314071.45
3995941.55 0.02466
314091.45 3995941.55 0.02203 314111.45
3995941.55 0.01979
314131.45 3995941.55 0.01787 314151.45
3995941.55 0.01621
314171.45 3995941.55 0.01477 314191.45
3995941.55 0.01351
314211.45 3995941.55 0.01241 314231.45
3995941.55 0.01144
314251.45 3995941.55 0.01057 314271.45
3995941.55 0.00981
313351.45 3995961.55 0.02867 313371.45
3995961.55 0.03103
313391.45 3995961.55 0.03373 313411.45
3995961.55 0.03685
313431.45 3995961.55 0.04049 313451.45
3995961.55 0.04478
313471.45 3995961.55 0.04993 313491.45
3995961.55 0.05624
313511.45 3995961.55 0.06416 313531.45
3995961.55 0.07445
313991.45 3995961.55 0.04213 314011.45
3995961.55 0.03635
314031.45 3995961.55 0.03167 314051.45
3995961.55 0.02783
314071.45 3995961.55 0.02462 314091.45
3995961.55 0.02193
314111.45 3995961.55 0.01965 314131.45
3995961.55 0.01770
314151.45 3995961.55 0.01602 314171.45
3995961.55 0.01457
314191.45 3995961.55 0.01331 314211.45
3995961.55 0.01221
314231.45 3995961.55 0.01124 314251.45
3995961.55 0.01038

314271.45 3995961.55 0.00962 313371.45
3995981.55 0.03203
313391.45 3995981.55 0.03477 313411.45
3995981.55 0.03793
313431.45 3995981.55 0.04160 313451.45
3995981.55 0.04592
313471.45 3995981.55 0.05109 313491.45
3995981.55 0.05739

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
313511.45	3995981.55	0.06530	313531.45	3995981.55	0.07556
313991.45	3995981.55	0.04274	314011.45	3995981.55	0.03680
314031.45	3995981.55	0.03192	314051.45	3995981.55	0.02791
314071.45	3995981.55	0.02459	314091.45	3995981.55	0.02182
314111.45	3995981.55	0.01948	314131.45	3995981.55	0.01750
314151.45	3995981.55	0.01581	314171.45	3995981.55	0.01435
314191.45	3995981.55	0.01309	314211.45	3995981.55	0.01199
314231.45	3995981.55	0.01102	314251.45	3995981.55	0.01018
314271.45	3995981.55	0.00943	313391.45	3996001.55	0.03573
313411.45	3996001.55	0.03892	313431.45	3996001.55	0.04262

313451.45 3996001.55 0.04696 313471.45
3996001.55 0.05213
313491.45 3996001.55 0.05842 313511.45
3996001.55 0.06630
313531.45 3996001.55 0.07650 313991.45
3996001.55 0.04402
314011.45 3996001.55 0.03750 314031.45
3996001.55 0.03223
314051.45 3996001.55 0.02798 314071.45
3996001.55 0.02452
314091.45 3996001.55 0.02166 314111.45
3996001.55 0.01927
314131.45 3996001.55 0.01726 314151.45
3996001.55 0.01555
314171.45 3996001.55 0.01409 314191.45
3996001.55 0.01283
314211.45 3996001.55 0.01174 314231.45
3996001.55 0.01079
314251.45 3996001.55 0.00995 314271.45
3996001.55 0.00921
313411.45 3996021.55 0.03982 313431.45
3996021.55 0.04354
313451.45 3996021.55 0.04789 313471.45
3996021.55 0.05307
313491.45 3996021.55 0.05935 313511.45
3996021.55 0.06718
313531.45 3996021.55 0.07731 313991.45
3996021.55 0.04590
314011.45 3996021.55 0.03828 314031.45
3996021.55 0.03249
314051.45 3996021.55 0.02797 314071.45
3996021.55 0.02435
314091.45 3996021.55 0.02141 314111.45
3996021.55 0.01899
314131.45 3996021.55 0.01696 314151.45
3996021.55 0.01525
314171.45 3996021.55 0.01380 314191.45
3996021.55 0.01255
314211.45 3996021.55 0.01147 314231.45
3996021.55 0.01053
314251.45 3996021.55 0.00971 314271.45
3996021.55 0.00898
313431.45 3996041.55 0.04437 313451.45
3996041.55 0.04873
313471.45 3996041.55 0.05390 313491.45
3996041.55 0.06017
313511.45 3996041.55 0.06796 313531.45
3996041.55 0.07800
313991.45 3996041.55 0.04751 314011.45
3996041.55 0.03880

314031.45 3996041.55 0.03254 314051.45
3996041.55 0.02779
314071.45 3996041.55 0.02406 314091.45
3996041.55 0.02107
314111.45 3996041.55 0.01863 314131.45
3996041.55 0.01660
314151.45 3996041.55 0.01490 314171.45
3996041.55 0.01346
314191.45 3996041.55 0.01223 314211.45
3996041.55 0.01117

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
314231.45	3996041.55	0.01025	314251.45	3996041.55	0.00945
314271.45	3996041.55	0.00874	313991.45	3996061.55	0.04821
314011.45	3996061.55	0.03886	314031.45	3996061.55	0.03231
314051.45	3996061.55	0.02742	314071.45	3996061.55	0.02363
314091.45	3996061.55	0.02062	314111.45	3996061.55	0.01818
314131.45	3996061.55	0.01617	314151.45	3996061.55	0.01450
314171.45	3996061.55	0.01308	314191.45	3996061.55	0.01188
314211.45	3996061.55	0.01085	314231.45	3996061.55	0.00995
314251.45	3996061.55	0.00917	314271.45	3996061.55	0.00849

313991.45 3996081.55 0.04826 314011.45
3996081.55 0.03852
314031.45 3996081.55 0.03179 314051.45
3996081.55 0.02684
314071.45 3996081.55 0.02304 314091.45
3996081.55 0.02005
314111.45 3996081.55 0.01764 314131.45
3996081.55 0.01567
314151.45 3996081.55 0.01404 314171.45
3996081.55 0.01266
314191.45 3996081.55 0.01150 314211.45
3996081.55 0.01050
314231.45 3996081.55 0.00963 314251.45
3996081.55 0.00888
314271.45 3996081.55 0.00822 313991.45
3996101.55 0.04787
314011.45 3996101.55 0.03786 314031.45
3996101.55 0.03104
314051.45 3996101.55 0.02608 314071.45
3996101.55 0.02231
314091.45 3996101.55 0.01937 314111.45
3996101.55 0.01702
314131.45 3996101.55 0.01511 314151.45
3996101.55 0.01353
314171.45 3996101.55 0.01221 314191.45
3996101.55 0.01109
314211.45 3996101.55 0.01013 314231.45
3996101.55 0.00930
314251.45 3996101.55 0.00857 314271.45
3996101.55 0.00794
313991.45 3996121.55 0.04707 314011.45
3996121.55 0.03690
314031.45 3996121.55 0.03006 314051.45
3996121.55 0.02514
314071.45 3996121.55 0.02145 314091.45
3996121.55 0.01859
314111.45 3996121.55 0.01633 314131.45
3996121.55 0.01449
314151.45 3996121.55 0.01298 314171.45
3996121.55 0.01172
314191.45 3996121.55 0.01065 314211.45
3996121.55 0.00974
314231.45 3996121.55 0.00895 314251.45
3996121.55 0.00826
314271.45 3996121.55 0.00765 313991.45
3996141.55 0.04586
314011.45 3996141.55 0.03563 314031.45
3996141.55 0.02884
314051.45 3996141.55 0.02403 314071.45
3996141.55 0.02047

314091.45   3996141.55   0.01773   314111.45
3996141.55   0.01557
314131.45   3996141.55   0.01383   314151.45
3996141.55   0.01240
314171.45   3996141.55   0.01121   314191.45
3996141.55   0.01020
314211.45   3996141.55   0.00934   314231.45
3996141.55   0.00859
314251.45   3996141.55   0.00794   314271.45
3996141.55   0.00736
313991.45   3996161.55   0.04417   314011.45
3996161.55   0.03400

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   4 YEARS FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
314031.45	3996161.55	0.02738	314051.45	3996161.55	0.02276
314071.45	3996161.55	0.01938	314091.45	3996161.55	0.01680
314111.45	3996161.55	0.01477	314131.45	3996161.55	0.01314
314151.45	3996161.55	0.01180	314171.45	3996161.55	0.01069
314191.45	3996161.55	0.00974	314211.45	3996161.55	0.00893
314231.45	3996161.55	0.00823	314251.45	3996161.55	0.00762
314271.45	3996161.55	0.00708	313991.45	3996181.55	0.04189
314011.45	3996181.55	0.03197	314031.45	3996181.55	0.02566

314051.45 3996181.55 0.02134 314071.45
3996181.55 0.01820
314091.45 3996181.55 0.01582 314111.45
3996181.55 0.01395
314131.45 3996181.55 0.01244 314151.45
3996181.55 0.01120
314171.45 3996181.55 0.01016 314191.45
3996181.55 0.00928
314211.45 3996181.55 0.00853 314231.45
3996181.55 0.00787
314251.45 3996181.55 0.00730 314271.45
3996181.55 0.00679
313991.45 3996201.55 0.03888 314011.45
3996201.55 0.02952
314031.45 3996201.55 0.02372 314051.45
3996201.55 0.01980
314071.45 3996201.55 0.01697 314091.45
3996201.55 0.01481
314111.45 3996201.55 0.01311 314131.45
3996201.55 0.01174
314151.45 3996201.55 0.01060 314171.45
3996201.55 0.00965
314191.45 3996201.55 0.00884 314211.45
3996201.55 0.00814
314231.45 3996201.55 0.00753 314251.45
3996201.55 0.00699
314271.45 3996201.55 0.00652 313991.45
3996221.55 0.03493
314011.45 3996221.55 0.02667 314031.45
3996221.55 0.02164
314051.45 3996221.55 0.01823 314071.45
3996221.55 0.01574
314091.45 3996221.55 0.01383 314111.45
3996221.55 0.01231
314131.45 3996221.55 0.01107 314151.45
3996221.55 0.01003
314171.45 3996221.55 0.00916 314191.45
3996221.55 0.00841
314211.45 3996221.55 0.00776 314231.45
3996221.55 0.00720
314251.45 3996221.55 0.00670 314271.45
3996221.55 0.00625
313991.45 3996241.55 0.03018 314011.45
3996241.55 0.02368
314031.45 3996241.55 0.01958 314051.45
3996241.55 0.01672
314071.45 3996241.55 0.01458 314091.45
3996241.55 0.01290
314111.45 3996241.55 0.01155 314131.45
3996241.55 0.01043

314151.45   3996241.55   0.00950   314171.45
3996241.55   0.00870
314191.45   3996241.55   0.00801   314211.45
3996241.55   0.00741
314231.45   3996241.55   0.00688   314251.45
3996241.55   0.00642
314271.45   3996241.55   0.00601   313991.45
3996261.55   0.02578
314011.45   3996261.55   0.02101   314031.45
3996261.55   0.01776
314051.45   3996261.55   0.01537   314071.45
3996261.55   0.01353
314091.45   3996261.55   0.01206   314111.45
3996261.55   0.01086

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
314131.45	3996261.55	0.00986	314151.45	3996261.55	0.00900
314171.45	3996261.55	0.00827	314191.45	3996261.55	0.00764
314211.45	3996261.55	0.00708	314231.45	3996261.55	0.00659
314251.45	3996261.55	0.00616	314271.45	3996261.55	0.00577
313991.45	3996281.55	0.02265	314011.45	3996281.55	0.01894
314031.45	3996281.55	0.01626	314051.45	3996281.55	0.01423
314071.45	3996281.55	0.01263	314091.45	3996281.55	0.01132

314111.45 3996281.55 0.01025 314131.45
3996281.55 0.00934
314151.45 3996281.55 0.00856 314171.45
3996281.55 0.00789
314191.45 3996281.55 0.00730 314211.45
3996281.55 0.00678
314231.45 3996281.55 0.00633 314251.45
3996281.55 0.00592
314271.45 3996281.55 0.00556 313811.45
3996301.55 0.06377
313831.45 3996301.55 0.06041 313851.45
3996301.55 0.05658
313871.45 3996301.55 0.05224 313891.45
3996301.55 0.04737
313911.45 3996301.55 0.04191 313931.45
3996301.55 0.03593
313951.45 3996301.55 0.02985 313971.45
3996301.55 0.02448
313991.45 3996301.55 0.02036 314011.45
3996301.55 0.01733
314031.45 3996301.55 0.01506 314051.45
3996301.55 0.01328
314071.45 3996301.55 0.01186 314091.45
3996301.55 0.01069
314111.45 3996301.55 0.00970 314131.45
3996301.55 0.00887
314151.45 3996301.55 0.00816 314171.45
3996301.55 0.00753
314191.45 3996301.55 0.00699 314211.45
3996301.55 0.00651
314231.45 3996301.55 0.00608 314251.45
3996301.55 0.00570
314271.45 3996301.55 0.00536 313811.45
3996321.55 0.05328
313831.45 3996321.55 0.05028 313851.45
3996321.55 0.04695
313871.45 3996321.55 0.04325 313891.45
3996321.55 0.03920
313911.45 3996321.55 0.03482 313931.45
3996321.55 0.03024
313951.45 3996321.55 0.02577 313971.45
3996321.55 0.02179
313991.45 3996321.55 0.01855 314011.45
3996321.55 0.01603
314031.45 3996321.55 0.01406 314051.45
3996321.55 0.01248
314071.45 3996321.55 0.01120 314091.45
3996321.55 0.01013
314111.45 3996321.55 0.00923 314131.45
3996321.55 0.00846

314151.45 3996321.55 0.00780 314171.45
3996321.55 0.00722
314191.45 3996321.55 0.00671 314211.45
3996321.55 0.00626
314231.45 3996321.55 0.00586 314251.45
3996321.55 0.00549
314271.45 3996321.55 0.00517 313811.45
3996341.55 0.04557
313831.45 3996341.55 0.04294 313851.45
3996341.55 0.04004
313871.45 3996341.55 0.03688 313891.45
3996341.55 0.03348
313911.45 3996341.55 0.02991 313931.45
3996341.55 0.02629
313951.45 3996341.55 0.02282 313971.45
3996341.55 0.01971

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC X-COORD (M)
Y-COORD (M) CONC
- -
313991.45 3996341.55 0.01707 314011.45
3996341.55 0.01493
314031.45 3996341.55 0.01320 314051.45
3996341.55 0.01179
314071.45 3996341.55 0.01062 314091.45
3996341.55 0.00965
314111.45 3996341.55 0.00882 314131.45
3996341.55 0.00810
314151.45 3996341.55 0.00748 314171.45
3996341.55 0.00694
314191.45 3996341.55 0.00646 314211.45
3996341.55 0.00603

314231.45 3996341.55 0.00565 314251.45
3996341.55 0.00531
314271.45 3996341.55 0.00500 313811.45
3996361.55 0.03970
313831.45 3996361.55 0.03737 313851.45
3996361.55 0.03484
313871.45 3996361.55 0.03212 313891.45
3996361.55 0.02925
313911.45 3996361.55 0.02629 313931.45
3996361.55 0.02335
313951.45 3996361.55 0.02056 313971.45
3996361.55 0.01802
313991.45 3996361.55 0.01582 314011.45
3996361.55 0.01397
314031.45 3996361.55 0.01245 314051.45
3996361.55 0.01118
314071.45 3996361.55 0.01012 314091.45
3996361.55 0.00922
314111.45 3996361.55 0.00844 314131.45
3996361.55 0.00778
314151.45 3996361.55 0.00719 314171.45
3996361.55 0.00668
314191.45 3996361.55 0.00623 314211.45
3996361.55 0.00583
314231.45 3996361.55 0.00546 314251.45
3996361.55 0.00514
314271.45 3996361.55 0.00484 313731.45
3996381.55 0.04143
313751.45 3996381.55 0.04015 313771.45
3996381.55 0.03865
313791.45 3996381.55 0.03695 313811.45
3996381.55 0.03507
313831.45 3996381.55 0.03301 313851.45
3996381.55 0.03079
313871.45 3996381.55 0.02844 313891.45
3996381.55 0.02599
313911.45 3996381.55 0.02351 313931.45
3996381.55 0.02106
313951.45 3996381.55 0.01874 313971.45
3996381.55 0.01662
313991.45 3996381.55 0.01475 314011.45
3996381.55 0.01314
314031.45 3996381.55 0.01178 314051.45
3996381.55 0.01063
314071.45 3996381.55 0.00966 314091.45
3996381.55 0.00883
314111.45 3996381.55 0.00811 314131.45
3996381.55 0.00748
314151.45 3996381.55 0.00694 314171.45
3996381.55 0.00645

314191.45 3996381.55 0.00602 314211.45
3996381.55 0.00564
314231.45 3996381.55 0.00529 314251.45
3996381.55 0.00498
314271.45 3996381.55 0.00470 313731.45
3996401.55 0.03707
313751.45 3996401.55 0.03590 313771.45
3996401.55 0.03454
313791.45 3996401.55 0.03301 313811.45
3996401.55 0.03132
313831.45 3996401.55 0.02949 313851.45
3996401.55 0.02754
313871.45 3996401.55 0.02549 313891.45
3996401.55 0.02339
313911.45 3996401.55 0.02127 313931.45
3996401.55 0.01921
313951.45 3996401.55 0.01724 313971.45
3996401.55 0.01543

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC X-COORD (M) Y-COORD (M) CONC
- -
313991.45 3996401.55 0.01381 314011.45
3996401.55 0.01239
314031.45 3996401.55 0.01118 314051.45
3996401.55 0.01013
314071.45 3996401.55 0.00924 314091.45
3996401.55 0.00847
314111.45 3996401.55 0.00780 314131.45
3996401.55 0.00722
314151.45 3996401.55 0.00670 314171.45
3996401.55 0.00624

314191.45 3996401.55 0.00583 314211.45
3996401.55 0.00547
314231.45 3996401.55 0.00514 314251.45
3996401.55 0.00484
314271.45 3996401.55 0.00457 313731.45
3996421.55 0.03345
313751.45 3996421.55 0.03237 313771.45
3996421.55 0.03114
313791.45 3996421.55 0.02975 313811.45
3996421.55 0.02824
313831.45 3996421.55 0.02661 313851.45
3996421.55 0.02488
313871.45 3996421.55 0.02309 313891.45
3996421.55 0.02126
313911.45 3996421.55 0.01944 313931.45
3996421.55 0.01766
313951.45 3996421.55 0.01597 313971.45
3996421.55 0.01441
313991.45 3996421.55 0.01299 314011.45
3996421.55 0.01173
314031.45 3996421.55 0.01063 314051.45
3996421.55 0.00968
314071.45 3996421.55 0.00886 314091.45
3996421.55 0.00814
314111.45 3996421.55 0.00752 314131.45
3996421.55 0.00697
314151.45 3996421.55 0.00648 314171.45
3996421.55 0.00605
314191.45 3996421.55 0.00566 314211.45
3996421.55 0.00531
314231.45 3996421.55 0.00500 314251.45
3996421.55 0.00471
314271.45 3996421.55 0.00445 313751.45
3996441.55 0.02940
313771.45 3996441.55 0.02827 313791.45
3996441.55 0.02702
313811.45 3996441.55 0.02565 313831.45
3996441.55 0.02419
313851.45 3996441.55 0.02266 313871.45
3996441.55 0.02108
313891.45 3996441.55 0.01948 313911.45
3996441.55 0.01790
313931.45 3996441.55 0.01635 313951.45
3996441.55 0.01488
313971.45 3996441.55 0.01351 313991.45
3996441.55 0.01225
314011.45 3996441.55 0.01112 314031.45
3996441.55 0.01013
314051.45 3996441.55 0.00926 314071.45
3996441.55 0.00850

314091.45 3996441.55 0.00784 314111.45
3996441.55 0.00725
314131.45 3996441.55 0.00674 314151.45
3996441.55 0.00628
314171.45 3996441.55 0.00587 314191.45
3996441.55 0.00550
314211.45 3996441.55 0.00516 314231.45
3996441.55 0.00486
314251.45 3996441.55 0.00459 314271.45
3996441.55 0.00434
313751.45 3996461.55 0.02686 313771.45
3996461.55 0.02583
313791.45 3996461.55 0.02469 313811.45
3996461.55 0.02346
313831.45 3996461.55 0.02215 313851.45
3996461.55 0.02078
313871.45 3996461.55 0.01939 313891.45
3996461.55 0.01798
313911.45 3996461.55 0.01658 313931.45
3996461.55 0.01522

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC X-COORD (M) Y-COORD (M) CONC
- -
313951.45 3996461.55 0.01393 313971.45
3996461.55 0.01271
313991.45 3996461.55 0.01159 314011.45
3996461.55 0.01058
314031.45 3996461.55 0.00967 314051.45
3996461.55 0.00887
314071.45 3996461.55 0.00817 314091.45
3996461.55 0.00755

314111.45 3996461.55 0.00700 314131.45
3996461.55 0.00652
314151.45 3996461.55 0.00608 314171.45
3996461.55 0.00569
314191.45 3996461.55 0.00534 314211.45
3996461.55 0.00503
314231.45 3996461.55 0.00474 314251.45
3996461.55 0.00448
314271.45 3996461.55 0.00424 313751.45
3996481.55 0.02467
313771.45 3996481.55 0.02372 313791.45
3996481.55 0.02269
313811.45 3996481.55 0.02157 313831.45
3996481.55 0.02039
313851.45 3996481.55 0.01917 313871.45
3996481.55 0.01793
313891.45 3996481.55 0.01668 313911.45
3996481.55 0.01544
313931.45 3996481.55 0.01424 313951.45
3996481.55 0.01308
313971.45 3996481.55 0.01200 313991.45
3996481.55 0.01099
314011.45 3996481.55 0.01007 314031.45
3996481.55 0.00925
314051.45 3996481.55 0.00851 314071.45
3996481.55 0.00786
314091.45 3996481.55 0.00728 314111.45
3996481.55 0.00677
314131.45 3996481.55 0.00631 314151.45
3996481.55 0.00590
314171.45 3996481.55 0.00553 314191.45
3996481.55 0.00520
314211.45 3996481.55 0.00490 314231.45
3996481.55 0.00462
314251.45 3996481.55 0.00437 314271.45
3996481.55 0.00414
313771.45 3996501.55 0.02189 313791.45
3996501.55 0.02095
313811.45 3996501.55 0.01994 313831.45
3996501.55 0.01888
313851.45 3996501.55 0.01778 313871.45
3996501.55 0.01666
313891.45 3996501.55 0.01555 313911.45
3996501.55 0.01444
313931.45 3996501.55 0.01337 313951.45
3996501.55 0.01233
313971.45 3996501.55 0.01136 313991.45
3996501.55 0.01045
314011.45 3996501.55 0.00961 314031.45
3996501.55 0.00886

314051.45 3996501.55 0.00818 314071.45
3996501.55 0.00757
314091.45 3996501.55 0.00703 314111.45
3996501.55 0.00655
314131.45 3996501.55 0.00611 314151.45
3996501.55 0.00573
314171.45 3996501.55 0.00538 314191.45
3996501.55 0.00506
314211.45 3996501.55 0.00477 314231.45
3996501.55 0.00451
314251.45 3996501.55 0.00427 314271.45
3996501.55 0.00405
313771.45 3996521.55 0.02029 313791.45
3996521.55 0.01943
313811.45 3996521.55 0.01851 313831.45
3996521.55 0.01755
313851.45 3996521.55 0.01656 313871.45
3996521.55 0.01556
313891.45 3996521.55 0.01455 313911.45
3996521.55 0.01356
313931.45 3996521.55 0.01259 313951.45
3996521.55 0.01166

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC X-COORD (M) Y-COORD (M) CONC
- -
313971.45 3996521.55 0.01078 313991.45
3996521.55 0.00995
314011.45 3996521.55 0.00919 314031.45
3996521.55 0.00849
314051.45 3996521.55 0.00786 314071.45
3996521.55 0.00730

314091.45 3996521.55 0.00679 314111.45
3996521.55 0.00634
314131.45 3996521.55 0.00593 314151.45
3996521.55 0.00556
314171.45 3996521.55 0.00523 314191.45
3996521.55 0.00493
314211.45 3996521.55 0.00465 314231.45
3996521.55 0.00440
314251.45 3996521.55 0.00417 314271.45
3996521.55 0.00396
313791.45 3996541.55 0.01809 313811.45
3996541.55 0.01725
313831.45 3996541.55 0.01638 313851.45
3996541.55 0.01548
313871.45 3996541.55 0.01458 313891.45
3996541.55 0.01367
313911.45 3996541.55 0.01277 313931.45
3996541.55 0.01190
313951.45 3996541.55 0.01105 313971.45
3996541.55 0.01025
313991.45 3996541.55 0.00949 314011.45
3996541.55 0.00879
314031.45 3996541.55 0.00815 314051.45
3996541.55 0.00757
314071.45 3996541.55 0.00704 314091.45
3996541.55 0.00657
314111.45 3996541.55 0.00614 314131.45
3996541.55 0.00575
314151.45 3996541.55 0.00540 314171.45
3996541.55 0.00509
314191.45 3996541.55 0.00480 314211.45
3996541.55 0.00454
314231.45 3996541.55 0.00430 314251.45
3996541.55 0.00408
314271.45 3996541.55 0.00387 313791.45
3996561.55 0.01690
313811.45 3996561.55 0.01613 313831.45
3996561.55 0.01534
313851.45 3996561.55 0.01453 313871.45
3996561.55 0.01371
313891.45 3996561.55 0.01288 313911.45
3996561.55 0.01207
313931.45 3996561.55 0.01127 313951.45
3996561.55 0.01050
313971.45 3996561.55 0.00977 313991.45
3996561.55 0.00907
314011.45 3996561.55 0.00843 314031.45
3996561.55 0.00784
314051.45 3996561.55 0.00729 314071.45
3996561.55 0.00680

```
         314091.45    3996561.55        0.00635                       314111.45
3996561.55        0.00595
         314131.45    3996561.55        0.00558                       314151.45
3996561.55        0.00525
         314171.45    3996561.55        0.00495                       314191.45
3996561.55        0.00468
         314211.45    3996561.55        0.00442                       314231.45
3996561.55        0.00419
         314251.45    3996561.55        0.00398                       314271.45
3996561.55        0.00379
         313791.45    3996581.55        0.01584                       313811.45
3996581.55        0.01514
         313831.45    3996581.55        0.01442                       313851.45
3996581.55        0.01368
         313871.45    3996581.55        0.01293                       313891.45
3996581.55        0.01217
         313911.45    3996581.55        0.01143                       313931.45
3996581.55        0.01070
         313951.45    3996581.55        0.01000                       313971.45
3996581.55        0.00932
         313991.45    3996581.55        0.00869                       314011.45
3996581.55        0.00809
         314031.45    3996581.55        0.00754                       314051.45
3996581.55        0.00703
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   4
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     PAREA1      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                        X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
         314071.45    3996581.55        0.00657                       314091.45
3996581.55        0.00615
         314111.45    3996581.55        0.00577                       314131.45
3996581.55        0.00542
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         314151.45    3996581.55        0.00511                      314171.45
3996581.55        0.00482
         314191.45    3996581.55        0.00456                      314211.45
3996581.55        0.00432
         314231.45    3996581.55        0.00410                      314251.45
3996581.55        0.00389
         314271.45    3996581.55        0.00371                      313529.06
3996060.33        0.07721
         313510.22    3996059.07        0.06803                      313491.38
3996062.84        0.06091
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA1      ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
        313271.45   3995341.55       0.17899  (08120324)                313291.45
3995341.55        0.18377  (08120324)
        313311.45   3995341.55       0.18762  (07021304)                313331.45
3995341.55        0.19219  (06010506)
        313351.45   3995341.55       0.19731  (10010108)                313371.45
3995341.55        0.20194  (09121623)
        313391.45   3995341.55       0.20820  (07121805)                313411.45
3995341.55        0.21180  (07121805)
        313431.45   3995341.55       0.21167  (07121805)                313451.45
3995341.55        0.20882  (06013119)
        313471.45   3995341.55       0.21333  (09012118)                313491.45
3995341.55        0.21414  (09012118)
        313511.45   3995341.55       0.21246  (09022819)                313531.45
3995341.55        0.21915  (09022819)
        313551.45   3995341.55       0.22134  (09022819)                313571.45
3995341.55        0.22090  (07022019)
        313591.45   3995341.55       0.21912  (07022019)                313611.45
3995341.55        0.21939  (06121917)
```

313631.45 3995341.55 0.21753 (06121917) 313651.45
3995341.55 0.21572 (08120422)
313671.45 3995341.55 0.21562 (08012617) 313691.45
3995341.55 0.21445 (08012617)
313711.45 3995341.55 0.21267 (09010717) 313731.45
3995341.55 0.21185 (08120519)
313751.45 3995341.55 0.21287 (07022819) 313771.45
3995341.55 0.21503 (07022819)
313791.45 3995341.55 0.21736 (07022819) 313811.45
3995341.55 0.21962 (07022819)
313831.45 3995341.55 0.22145 (06120717) 313851.45
3995341.55 0.22557 (06120717)
313871.45 3995341.55 0.22805 (06120717) 313891.45
3995341.55 0.22766 (06120717)
313911.45 3995341.55 0.22573 (07022520) 313931.45
3995341.55 0.22794 (07022520)
313951.45 3995341.55 0.22640 (07022520) 313971.45
3995341.55 0.22617 (06121719)
313991.45 3995341.55 0.22572 (09010318) 314011.45
3995341.55 0.22436 (07021419)
314031.45 3995341.55 0.22283 (07022018) 314051.45
3995341.55 0.21924 (07022018)
314071.45 3995341.55 0.21603 (06021018) 314091.45
3995341.55 0.21015 (06021018)
314111.45 3995341.55 0.20723 (09121517) 314131.45
3995341.55 0.20308 (08011207)
314151.45 3995341.55 0.19981 (07021118) 314171.45
3995341.55 0.19402 (07021118)
314191.45 3995341.55 0.18930 (06011120) 314211.45
3995341.55 0.18443 (09020520)
314231.45 3995341.55 0.17981 (09020520) 314251.45
3995341.55 0.17403 (08012217)
314271.45 3995341.55 0.17010 (08012217) 313271.45
3995361.55 0.18136 (08022322)
313291.45 3995361.55 0.18600 (08120324) 313311.45
3995361.55 0.19082 (08120324)
313331.45 3995361.55 0.19488 (07021304) 313351.45
3995361.55 0.20007 (06010506)
313371.45 3995361.55 0.20590 (10010108) 313391.45
3995361.55 0.21140 (07121805)
313411.45 3995361.55 0.21746 (07121805) 313431.45
3995361.55 0.21963 (07121805)
313451.45 3995361.55 0.21777 (07121805) 313471.45
3995361.55 0.21918 (09012118)
313491.45 3995361.55 0.22177 (09012118) 313511.45
3995361.55 0.22019 (09012118)
313531.45 3995361.55 0.22513 (09022819) 313551.45
3995361.55 0.22852 (09022819)
313571.45 3995361.55 0.22807 (07022019) 313591.45
3995361.55 0.22679 (07022019)

313611.45 3995361.55 0.22636 (06121917) 313631.45
3995361.55 0.22457 (06121917)
313651.45 3995361.55 0.22229 (08120422) 313671.45
3995361.55 0.22196 (08012617)
313691.45 3995361.55 0.22044 (08012617) 313711.45
3995361.55 0.21839 (09010717)
313731.45 3995361.55 0.21739 (08120519) 313751.45
3995361.55 0.21863 (07022819)
313771.45 3995361.55 0.22068 (07022819) 313791.45
3995361.55 0.22317 (07022819)
313811.45 3995361.55 0.22578 (07022819) 313831.45
3995361.55 0.22796 (06120717)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH) X-COORD (M) Y-COORD (M) CONC (YYMMDDHH)
- -
313851.45 3995361.55 0.23243 (06120717) 313871.45
3995361.55 0.23510 (06120717)
313891.45 3995361.55 0.23465 (06120717) 313911.45
3995361.55 0.23346 (07022520)
313931.45 3995361.55 0.23530 (07022520) 313951.45
3995361.55 0.23299 (07022520)
313971.45 3995361.55 0.23343 (06121719) 313991.45
3995361.55 0.23286 (09010318)
314011.45 3995361.55 0.23132 (07021419) 314031.45
3995361.55 0.22957 (07022018)
314051.45 3995361.55 0.22504 (06021018) 314071.45
3995361.55 0.22120 (06021018)
314091.45 3995361.55 0.21577 (09121517) 314111.45
3995361.55 0.21184 (09121517)
314131.45 3995361.55 0.20828 (07021118) 314151.45
3995361.55 0.20311 (07021118)

314171.45 3995361.55 0.19714 (06011120) 314191.45
3995361.55 0.19171 (09020520)
314211.45 3995361.55 0.18711 (09020520) 314231.45
3995361.55 0.18061 (09020520)
314251.45 3995361.55 0.17645 (08012217) 314271.45
3995361.55 0.17136 (09010224)
313271.45 3995381.55 0.18280 (08022322) 313291.45
3995381.55 0.18825 (08022322)
313311.45 3995381.55 0.19354 (08120324) 313331.45
3995381.55 0.19846 (07021304)
313351.45 3995381.55 0.20337 (06010506) 313371.45
3995381.55 0.20907 (10010108)
313391.45 3995381.55 0.21492 (10010108) 313411.45
3995381.55 0.22202 (07121805)
313431.45 3995381.55 0.22682 (07121805) 313451.45
3995381.55 0.22730 (07121805)
313471.45 3995381.55 0.22460 (09012118) 313491.45
3995381.55 0.22926 (09012118)
313511.45 3995381.55 0.22931 (09012118) 313531.45
3995381.55 0.23121 (09022819)
313551.45 3995381.55 0.23599 (09022819) 313571.45
3995381.55 0.23597 (09022819)
313591.45 3995381.55 0.23496 (07022019) 313611.45
3995381.55 0.23386 (06121917)
313631.45 3995381.55 0.23216 (06121917) 313651.45
3995381.55 0.22938 (08120422)
313671.45 3995381.55 0.22879 (08012617) 313691.45
3995381.55 0.22686 (08012617)
313711.45 3995381.55 0.22447 (09010717) 313731.45
3995381.55 0.22324 (08120519)
313751.45 3995381.55 0.22472 (07022819) 313771.45
3995381.55 0.22664 (07022819)
313791.45 3995381.55 0.22934 (07022819) 313811.45
3995381.55 0.23238 (07022819)
313831.45 3995381.55 0.23496 (06120717) 313851.45
3995381.55 0.23984 (06120717)
313871.45 3995381.55 0.24271 (06120717) 313891.45
3995381.55 0.24217 (06120717)
313911.45 3995381.55 0.24172 (07022520) 313931.45
3995381.55 0.24309 (07022520)
313951.45 3995381.55 0.24107 (06121719) 313971.45
3995381.55 0.24112 (09010318)
313991.45 3995381.55 0.24012 (09010318) 314011.45
3995381.55 0.23880 (07022018)
314031.45 3995381.55 0.23603 (07022018) 314051.45
3995381.55 0.23194 (06021018)
314071.45 3995381.55 0.22559 (06021018) 314091.45
3995381.55 0.22188 (09121517)
314111.45 3995381.55 0.21710 (07021118) 314131.45
3995381.55 0.21272 (07021118)

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        314151.45   3995381.55        0.20552  (06011120)                314171.45
3995381.55        0.20027  (06011120)
        314191.45   3995381.55        0.19498  (09020520)                314211.45
3995381.55        0.18831  (09020520)
        314231.45   3995381.55        0.18329  (08012217)                314251.45
3995381.55        0.17777  (09010224)
        314271.45   3995381.55        0.17278  (06022319)                313271.45
3995401.55        0.18329  (07021120)
        313291.45   3995401.55        0.18995  (08022322)                313311.45
3995401.55        0.19571  (08022322)
        313331.45   3995401.55        0.20169  (08120324)                313351.45
3995401.55        0.20700  (07021304)
        313371.45   3995401.55        0.21269  (06010506)                313391.45
3995401.55        0.21923  (10010108)
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↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\LombardiPorterville\LombardiPorterville.isc     ***        07/23/21
 *** AERMET - VERSION  18081 ***   ***
                        ***       09:19:05

                                  PAGE  56
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA1      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        313411.45   3995401.55        0.22555  (09121623)                313431.45
3995401.55        0.23298  (07121805)
        313451.45   3995401.55        0.23620  (07121805)                313471.45
3995401.55        0.23469  (07121805)
        313491.45   3995401.55        0.23651  (09012118)                313511.45
3995401.55        0.23851  (09012118)
        313531.45   3995401.55        0.23737  (09022819)                313551.45
3995401.55        0.24375  (09022819)
        313571.45   3995401.55        0.24482  (09022819)                313591.45
3995401.55        0.24369  (07022019)
        313611.45   3995401.55        0.24194  (06121917)                313631.45
3995401.55        0.24036  (06121917)
        313651.45   3995401.55        0.23709  (08120422)                313671.45
3995401.55        0.23618  (08012617)
```

313691.45 3995401.55 0.23377 (08012617) 313711.45
3995401.55 0.23095 (09010717)
313731.45 3995401.55 0.22995 (07022819) 313751.45
3995401.55 0.23111 (07022819)
313771.45 3995401.55 0.23294 (07022819) 313791.45
3995401.55 0.23592 (07022819)
313811.45 3995401.55 0.23948 (07022819) 313831.45
3995401.55 0.24253 (06120717)
313851.45 3995401.55 0.24787 (06120717) 313871.45
3995401.55 0.25095 (06120717)
313891.45 3995401.55 0.25030 (06120717) 313911.45
3995401.55 0.25057 (07022520)
313931.45 3995401.55 0.25140 (07022520) 313951.45
3995401.55 0.25003 (06121719)
313971.45 3995401.55 0.25002 (09010318) 313991.45
3995401.55 0.24882 (07021419)
314011.45 3995401.55 0.24719 (07022018) 314031.45
3995401.55 0.24217 (06021018)
314051.45 3995401.55 0.23825 (06021018) 314071.45
3995401.55 0.23207 (09121517)
314091.45 3995401.55 0.22694 (08011207) 314111.45
3995401.55 0.22289 (07021118)
314131.45 3995401.55 0.21569 (07021118) 314151.45
3995401.55 0.20953 (09120417)
314171.45 3995401.55 0.20351 (09020520) 314191.45
3995401.55 0.19664 (09020520)
314211.45 3995401.55 0.19071 (08012217) 314231.45
3995401.55 0.18470 (09010224)
314251.45 3995401.55 0.17926 (06022319) 314271.45
3995401.55 0.17494 (06022319)
313271.45 3995421.55 0.18511 (07021120) 313291.45
3995421.55 0.19026 (07021120)
313311.45 3995421.55 0.19769 (08022322) 313331.45
3995421.55 0.20383 (08022322)
313351.45 3995421.55 0.21055 (08120324) 313371.45
3995421.55 0.21627 (07021304)
313391.45 3995421.55 0.22273 (06010506) 313411.45
3995421.55 0.23009 (10010108)
313431.45 3995421.55 0.23788 (07121805) 313451.45
3995421.55 0.24422 (07121805)
313471.45 3995421.55 0.24550 (07121805) 313491.45
3995421.55 0.24339 (09012118)
313511.45 3995421.55 0.24771 (09012118) 313531.45
3995421.55 0.24674 (09012118)
313551.45 3995421.55 0.25184 (09022819) 313571.45
3995421.55 0.25416 (09022819)
313591.45 3995421.55 0.25303 (07022019) 313611.45
3995421.55 0.25067 (06121917)
313631.45 3995421.55 0.24929 (06121917) 313651.45
3995421.55 0.24550 (08120422)

313671.45 3995421.55 0.24423 (08012617) 313691.45
3995421.55 0.24124 (08012617)
313711.45 3995421.55 0.23790 (09010717) 313731.45
3995421.55 0.23723 (07022819)
313751.45 3995421.55 0.23788 (07022819) 313771.45
3995421.55 0.23963 (07022819)
313791.45 3995421.55 0.24297 (07022819) 313811.45
3995421.55 0.24715 (07022819)
313831.45 3995421.55 0.25077 (06120717) 313851.45
3995421.55 0.25664 (06120717)
313871.45 3995421.55 0.25990 (06120717) 313891.45
3995421.55 0.25910 (06120717)
313911.45 3995421.55 0.26008 (07022520) 313931.45
3995421.55 0.26027 (07022520)
313951.45 3995421.55 0.25948 (06121719) 313971.45
3995421.55 0.25927 (09010318)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
313991.45	3995421.55	0.25767	(07021419)	314011.45	3995421.55	0.25547	(07022018)
314031.45	3995421.55	0.25059	(06021018)	314051.45	3995421.55	0.24374	(06021018)
314071.45	3995421.55	0.23892	(09121517)	314091.45	3995421.55	0.23364	(07021118)
314111.45	3995421.55	0.22716	(07021118)	314131.45	3995421.55	0.21960	(09120417)
314151.45	3995421.55	0.21281	(09020520)	314171.45	3995421.55	0.20572	(09020520)
314191.45	3995421.55	0.19878	(08012217)	314211.45	3995421.55	0.19222	(09010224)

314231.45 3995421.55 0.18627 (06022319) 314251.45
3995421.55 0.18142 (06022319)
314271.45 3995421.55 0.17640 (09020218) 313271.45
3995441.55 0.18590 (06010119)
313291.45 3995441.55 0.19215 (07021120) 313311.45
3995441.55 0.19812 (08022322)
313331.45 3995441.55 0.20614 (08022322) 313351.45
3995441.55 0.21271 (08022322)
313371.45 3995441.55 0.22025 (08120324) 313391.45
3995441.55 0.22640 (07021304)
313411.45 3995441.55 0.23409 (10010108) 313431.45
3995441.55 0.24184 (09121623)
313451.45 3995441.55 0.25106 (07121805) 313471.45
3995441.55 0.25565 (07121805)
313491.45 3995441.55 0.25462 (07121805) 313511.45
3995441.55 0.25682 (09012118)
313531.45 3995441.55 0.25796 (09012118) 313551.45
3995441.55 0.26026 (09022819)
313571.45 3995441.55 0.26406 (09022819) 313591.45
3995441.55 0.26304 (07022019)
313611.45 3995441.55 0.26016 (06121917) 313631.45
3995441.55 0.25904 (06121917)
313651.45 3995441.55 0.25472 (08120422) 313671.45
3995441.55 0.25306 (08012617)
313691.45 3995441.55 0.24938 (08012617) 313711.45
3995441.55 0.24548 (08120519)
313731.45 3995441.55 0.24500 (07022819) 313751.45
3995441.55 0.24508 (07022819)
313771.45 3995441.55 0.24677 (07022819) 313791.45
3995441.55 0.25056 (07022819)
313811.45 3995441.55 0.25550 (07022819) 313831.45
3995441.55 0.25981 (06120717)
313851.45 3995441.55 0.26626 (06120717) 313871.45
3995441.55 0.26968 (06120717)
313891.45 3995441.55 0.26867 (06120717) 313911.45
3995441.55 0.27033 (07022520)
313931.45 3995441.55 0.26979 (07022520) 313951.45
3995441.55 0.26948 (06121719)
313971.45 3995441.55 0.26891 (09010318) 313991.45
3995441.55 0.26756 (07022018)
314011.45 3995441.55 0.26351 (07022018) 314031.45
3995441.55 0.25847 (06021018)
314051.45 3995441.55 0.25128 (09121517) 314071.45
3995441.55 0.24519 (08011207)
314091.45 3995441.55 0.23949 (07021118) 314111.45
3995441.55 0.23057 (09120417)
314131.45 3995441.55 0.22299 (09020520) 314151.45
3995441.55 0.21566 (09020520)
314171.45 3995441.55 0.20763 (08012217) 314191.45
3995441.55 0.20042 (09010224)

314211.45 3995441.55 0.19389 (06022319) 314231.45
3995441.55 0.18843 (09020218)
314251.45 3995441.55 0.18288 (09020218) 314271.45
3995441.55 0.17659 (09012502)
313271.45 3995461.55 0.18678 (09012119) 313291.45
3995461.55 0.19289 (06010119)
313311.45 3995461.55 0.19979 (07021120) 313331.45
3995461.55 0.20674 (08022322)
313351.45 3995461.55 0.21539 (08022322) 313371.45
3995461.55 0.22297 (08120324)
313391.45 3995461.55 0.23094 (08120324) 313411.45
3995461.55 0.23842 (06010506)
313431.45 3995461.55 0.24726 (10010108) 313451.45
3995461.55 0.25636 (07121805)
313471.45 3995461.55 0.26479 (07121805) 313491.45
3995461.55 0.26713 (07121805)
313511.45 3995461.55 0.26573 (09012118) 313531.45
3995461.55 0.26941 (09012118)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH) X-COORD (M) Y-COORD (M) CONC (YYMMDDHH)
- -
313551.45 3995461.55 0.26906 (09022819) 313571.45
3995461.55 0.27457 (09022819)
313591.45 3995461.55 0.27407 (09022819) 313611.45
3995461.55 0.27163 (07022019)
313631.45 3995461.55 0.26975 (06121917) 313651.45
3995461.55 0.26490 (08120422)
313671.45 3995461.55 0.26282 (08012617) 313691.45
3995461.55 0.25832 (08012617)
313711.45 3995461.55 0.25406 (07022819) 313731.45
3995461.55 0.25329 (07022819)

313751.45 3995461.55 0.25276 (07022819) 313771.45
3995461.55 0.25444 (07022819)
313791.45 3995461.55 0.25879 (07022819) 313811.45
3995461.55 0.26464 (07022819)
313831.45 3995461.55 0.26979 (06120717) 313851.45
3995461.55 0.27688 (06120717)
313871.45 3995461.55 0.28042 (06120717) 313891.45
3995461.55 0.27913 (06120717)
313911.45 3995461.55 0.28141 (07022520) 313931.45
3995461.55 0.28008 (07022520)
313951.45 3995461.55 0.28063 (09010318) 313971.45
3995461.55 0.27994 (07021419)
313991.45 3995461.55 0.27826 (07022018) 314011.45
3995461.55 0.27284 (06021018)
314031.45 3995461.55 0.26554 (06021018) 314051.45
3995461.55 0.25913 (09121517)
314071.45 3995461.55 0.25280 (07021118) 314091.45
3995461.55 0.24345 (07021118)
314111.45 3995461.55 0.23491 (09120417) 314131.45
3995461.55 0.22663 (09020520)
314151.45 3995461.55 0.21739 (08012217) 314171.45
3995461.55 0.20951 (08012217)
314191.45 3995461.55 0.20220 (06022319) 314211.45
3995461.55 0.19611 (09020218)
314231.45 3995461.55 0.18985 (09020218) 314251.45
3995461.55 0.18305 (09012502)
314271.45 3995461.55 0.17705 (09012502) 313271.45
3995481.55 0.18725 (09012119)
313291.45 3995481.55 0.19370 (09012119) 313311.45
3995481.55 0.20045 (06010119)
313331.45 3995481.55 0.20813 (07021120) 313351.45
3995481.55 0.21617 (08022322)
313371.45 3995481.55 0.22561 (08022322) 313391.45
3995481.55 0.23435 (08120324)
313411.45 3995481.55 0.24293 (07021304) 313431.45
3995481.55 0.25180 (06010506)
313451.45 3995481.55 0.26167 (10010108) 313471.45
3995481.55 0.27254 (07121805)
313491.45 3995481.55 0.27899 (07121805) 313511.45
3995481.55 0.27855 (07121805)
313531.45 3995481.55 0.28106 (09012118) 313551.45
3995481.55 0.28092 (09012118)
313571.45 3995481.55 0.28580 (09022819) 313591.45
3995481.55 0.28657 (09022819)
313611.45 3995481.55 0.28415 (07022019) 313631.45
3995481.55 0.28160 (06121917)
313651.45 3995481.55 0.27657 (06121917) 313671.45
3995481.55 0.27369 (08012617)
313691.45 3995481.55 0.26821 (08012617) 313711.45
3995481.55 0.26420 (07022819)

313731.45 3995481.55 0.26221 (07022819) 313751.45 3995481.55 0.26100 (07022819)
313771.45 3995481.55 0.26273 (07022819) 313791.45 3995481.55 0.26777 (07022819)
313811.45 3995481.55 0.27473 (07022819) 313831.45 3995481.55 0.28091 (06120717)
313851.45 3995481.55 0.28871 (06120717) 313871.45 3995481.55 0.29227 (06120717)
313891.45 3995481.55 0.29070 (07022520) 313911.45 3995481.55 0.29346 (07022520)
313931.45 3995481.55 0.29232 (06121719) 313951.45 3995481.55 0.29305 (09010318)
313971.45 3995481.55 0.29184 (07021419) 313991.45 3995481.55 0.28912 (07022018)
314011.45 3995481.55 0.28303 (06021018) 314031.45 3995481.55 0.27448 (09121517)
314051.45 3995481.55 0.26717 (07021118) 314071.45 3995481.55 0.25863 (07021118)
314091.45 3995481.55 0.24833 (09120417) 314111.45 3995481.55 0.23882 (09020520)

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH) X-COORD (M) Y-COORD (M) CONC (YYMMDDHH)
- -
314131.45 3995481.55 0.22824 (08012217) 314151.45 3995481.55 0.21957 (08012217)
314171.45 3995481.55 0.21130 (06022319) 314191.45 3995481.55 0.20446 (09020218)
314211.45 3995481.55 0.19736 (09020218) 314231.45 3995481.55 0.18996 (09012502)
314251.45 3995481.55 0.18323 (09012502) 314271.45 3995481.55 0.17680 (09010522)

313271.45 3995501.55 0.18661 (09012119) 313291.45
3995501.55 0.19400 (09012119)
313311.45 3995501.55 0.20114 (09012119) 313331.45
3995501.55 0.20868 (06010119)
313351.45 3995501.55 0.21726 (07021120) 313371.45
3995501.55 0.22656 (08022322)
313391.45 3995501.55 0.23697 (08022322) 313411.45
3995501.55 0.24709 (08120324)
313431.45 3995501.55 0.25667 (07021304) 313451.45
3995501.55 0.26699 (10010108)
313471.45 3995501.55 0.27840 (07121805) 313491.45
3995501.55 0.28976 (07121805)
313511.45 3995501.55 0.29347 (07121805) 313531.45
3995501.55 0.29285 (09012118)
313551.45 3995501.55 0.29538 (09012118) 313571.45
3995501.55 0.29789 (09022819)
313591.45 3995501.55 0.30008 (09022819) 313611.45
3995501.55 0.29786 (07022019)
313631.45 3995501.55 0.29474 (06121917) 313651.45
3995501.55 0.28982 (06121917)
313671.45 3995501.55 0.28592 (08012617) 313691.45
3995501.55 0.27931 (09010717)
313711.45 3995501.55 0.27528 (07022819) 313731.45
3995501.55 0.27183 (07022819)
313751.45 3995501.55 0.26992 (07022819) 313771.45
3995501.55 0.27174 (07022819)
313791.45 3995501.55 0.27763 (07022819) 313811.45
3995501.55 0.28596 (07022819)
313831.45 3995501.55 0.29345 (06120717) 313851.45
3995501.55 0.30198 (06120717)
313871.45 3995501.55 0.30544 (06120717) 313891.45
3995501.55 0.30464 (07022520)
313911.45 3995501.55 0.30668 (07022520) 313931.45
3995501.55 0.30600 (06121719)
313951.45 3995501.55 0.30646 (09010318) 313971.45
3995501.55 0.30545 (07022018)
313991.45 3995501.55 0.30009 (06021018) 314011.45
3995501.55 0.29256 (06021018)
314031.45 3995501.55 0.28381 (09121517) 314051.45
3995501.55 0.27544 (07021118)
314071.45 3995501.55 0.26340 (09120417) 314091.45
3995501.55 0.25255 (09020520)
314111.45 3995501.55 0.24082 (09020520) 314131.45
3995501.55 0.23074 (08012217)
314151.45 3995501.55 0.22134 (06022319) 314171.45
3995501.55 0.21357 (09020218)
314191.45 3995501.55 0.20550 (09020218) 314211.45
3995501.55 0.19736 (09012502)
314231.45 3995501.55 0.18984 (09012502) 314251.45
3995501.55 0.18301 (06020508)

314271.45   3995501.55   0.17764 (07021518)   313271.45
3995521.55   0.18633 (09020219)
313291.45   3995521.55   0.19321 (09012119)   313311.45
3995521.55   0.20125 (09012119)
313331.45   3995521.55   0.20922 (09012119)   313351.45
3995521.55   0.21765 (06010119)
313371.45   3995521.55   0.22732 (07021120)   313391.45
3995521.55   0.23812 (08022322)
313411.45   3995521.55   0.24977 (08022322)   313431.45
3995521.55   0.26154 (08120324)
313451.45   3995521.55   0.27231 (07021304)   313471.45
3995521.55   0.28526 (10010108)
313491.45   3995521.55   0.29890 (07121805)   313511.45
3995521.55   0.30791 (07121805)
313531.45   3995521.55   0.30806 (07121805)   313551.45
3995521.55   0.31058 (09012118)
313571.45   3995521.55   0.31108 (09022819)   313591.45
3995521.55   0.31480 (09022819)
313611.45   3995521.55   0.31293 (07022019)   313631.45
3995521.55   0.30945 (06121917)
313651.45   3995521.55   0.30487 (06121917)   313671.45
3995521.55   0.29986 (08012617)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
- -
313691.45   3995521.55   0.29195 (09010717)   313711.45
3995521.55   0.28748 (07022819)
313731.45   3995521.55   0.28226 (07022819)   313751.45
3995521.55   0.27966 (07022819)
313771.45   3995521.55   0.28167 (07022819)   313791.45
3995521.55   0.28852 (07022819)

313811.45   3995521.55   0.29861 (07022819)   313831.45
3995521.55   0.30775 (06120717)
313851.45   3995521.55   0.31703 (06120717)   313871.45
3995521.55   0.32021 (06120717)
313891.45   3995521.55   0.32008 (07022520)   313911.45
3995521.55   0.32134 (07022520)
313931.45   3995521.55   0.32106 (06121719)   313951.45
3995521.55   0.32152 (07021419)
313971.45   3995521.55   0.32038 (07022018)   313991.45
3995521.55   0.31389 (06021018)
314011.45   3995521.55   0.30356 (09121517)   314031.45
3995521.55   0.29420 (07021118)
314051.45   3995521.55   0.28104 (07021118)   314071.45
3995521.55   0.26823 (09020520)
314091.45   3995521.55   0.25533 (09020520)   314111.45
3995521.55   0.24328 (08012217)
314131.45   3995521.55   0.23249 (06022319)   314151.45
3995521.55   0.22356 (09020218)
314171.45   3995521.55   0.21435 (09020218)   314191.45
3995521.55   0.20534 (09012502)
314211.45   3995521.55   0.19691 (09012502)   314231.45
3995521.55   0.18976 (06020508)
314251.45   3995521.55   0.18411 (07021518)   314271.45
3995521.55   0.17846 (07021518)
313271.45   3995541.55   0.18543 (08122502)   313291.45
3995541.55   0.19273 (09020219)
313311.45   3995541.55   0.20032 (09012119)   313331.45
3995541.55   0.20912 (09012119)
313351.45   3995541.55   0.21800 (09012119)   313371.45
3995541.55   0.22754 (06010119)
313391.45   3995541.55   0.23850 (07021120)   313411.45
3995541.55   0.25111 (08022322)
313431.45   3995541.55   0.26436 (08022322)   313451.45
3995541.55   0.27818 (08120324)
313471.45   3995541.55   0.29137 (06010506)   313491.45
3995541.55   0.30606 (10010108)
313511.45   3995541.55   0.32138 (07121805)   313531.45
3995541.55   0.32670 (07121805)
313551.45   3995541.55   0.32676 (09012118)   313571.45
3995541.55   0.32731 (09012118)
313591.45   3995541.55   0.33107 (09022819)   313611.45
3995541.55   0.33039 (09022819)
313631.45   3995541.55   0.32653 (07022019)   313651.45
3995541.55   0.32217 (06121917)
313671.45   3995541.55   0.31600 (08012617)   313691.45
3995541.55   0.30650 (09010717)
313711.45   3995541.55   0.30102 (07022819)   313731.45
3995541.55   0.29362 (07022819)
313751.45   3995541.55   0.29045 (07022819)   313771.45
3995541.55   0.29270 (07022819)

```
        313791.45   3995541.55        0.30066  (07022819)                313811.45
3995541.55        0.31306  (07022819)
        313831.45   3995541.55        0.32435  (06120717)                313851.45
3995541.55        0.33427  (06120717)
        313871.45   3995541.55        0.33692  (06120717)                313891.45
3995541.55        0.33734  (07022520)
        313911.45   3995541.55        0.33786  (07022520)                313931.45
3995541.55        0.33869  (09010318)
        313951.45   3995541.55        0.33900  (07021419)                313971.45
3995541.55        0.33650  (07022018)
        313991.45   3995541.55        0.32758  (06021018)                314011.45
3995541.55        0.31528  (09121517)
        314031.45   3995541.55        0.30296  (07021118)                314051.45
3995541.55        0.28708  (09120417)
        314071.45   3995541.55        0.27199  (09020520)                314091.45
3995541.55        0.25752  (08012217)
        314111.45   3995541.55        0.24497  (06022319)                314131.45
3995541.55        0.23459  (09020218)
        314151.45   3995541.55        0.22405  (09020218)                314171.45
3995541.55        0.21395  (09012502)
        314191.45   3995541.55        0.20453  (09012502)                314211.45
3995541.55        0.19719  (07021518)
        314231.45   3995541.55        0.19082  (07021518)                314251.45
3995541.55        0.18438  (07021518)
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                   INCLUDING SOURCE(S):     PAREA1      ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                         ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        314271.45   3995541.55        0.17829  (09011917)                313271.45
3995561.55        0.18426  (08122502)
        313291.45   3995561.55        0.19169  (08122502)                313311.45
3995561.55        0.19962  (09020219)
```

313331.45 3995561.55 0.20804 (09012119) 313351.45
3995561.55 0.21769 (09012119)
313371.45 3995561.55 0.22760 (09012119) 313391.45
3995561.55 0.23846 (06010119)
313411.45 3995561.55 0.25104 (07021120) 313431.45
3995561.55 0.26589 (08022322)
313451.45 3995561.55 0.28126 (08022322) 313471.45
3995561.55 0.29774 (08120324)
313491.45 3995561.55 0.31389 (10010108) 313511.45
3995561.55 0.33289 (07121805)
313531.45 3995561.55 0.34568 (07121805) 313551.45
3995561.55 0.34597 (07121805)
313571.45 3995561.55 0.34767 (09012118) 313591.45
3995561.55 0.34944 (09022819)
313611.45 3995561.55 0.35005 (09022819) 313631.45
3995561.55 0.34691 (07022019)
313651.45 3995561.55 0.34228 (06121917) 313671.45
3995561.55 0.33505 (08012617)
313691.45 3995561.55 0.32500 (07022819) 313711.45
3995561.55 0.31619 (07022819)
313731.45 3995561.55 0.30607 (07022819) 313751.45
3995561.55 0.30264 (07022819)
313771.45 3995561.55 0.30513 (07022819) 313791.45
3995561.55 0.31426 (07022819)
313811.45 3995561.55 0.32986 (07022819) 313831.45
3995561.55 0.34402 (06120717)
313851.45 3995561.55 0.35428 (06120717) 313871.45
3995561.55 0.35612 (06120717)
313891.45 3995561.55 0.35699 (07022520) 313911.45
3995561.55 0.35690 (07022520)
313931.45 3995561.55 0.35888 (09010318) 313951.45
3995561.55 0.35965 (07022018)
313971.45 3995561.55 0.35462 (06021018) 313991.45
3995561.55 0.34229 (09121517)
314011.45 3995561.55 0.32868 (07021118) 314031.45
3995561.55 0.30971 (09120417)
314051.45 3995561.55 0.29149 (09020520) 314071.45
3995561.55 0.27391 (08012217)
314091.45 3995561.55 0.25908 (06022319) 314111.45
3995561.55 0.24685 (09020218)
314131.45 3995561.55 0.23471 (09020218) 314151.45
3995561.55 0.22333 (09012502)
314171.45 3995561.55 0.21281 (09012502) 314191.45
3995561.55 0.20517 (07021518)
314211.45 3995561.55 0.19782 (07021518) 314231.45
3995561.55 0.19057 (07021518)
314251.45 3995561.55 0.18406 (09011917) 314271.45
3995561.55 0.17776 (09011917)
313271.45 3995581.55 0.18280 (07012802) 313291.45
3995581.55 0.19041 (08122502)

313311.45 3995581.55 0.19843 (08122502) 313331.45
3995581.55 0.20711 (09020219)
313351.45 3995581.55 0.21647 (09012119) 313371.45
3995581.55 0.22709 (09012119)
313391.45 3995581.55 0.23821 (09012119) 313411.45
3995581.55 0.25073 (07021120)
313431.45 3995581.55 0.26523 (07021120) 313451.45
3995581.55 0.28292 (08022322)
313471.45 3995581.55 0.30157 (08120324) 313491.45
3995581.55 0.32144 (07021304)
313511.45 3995581.55 0.34276 (10010108) 313531.45
3995581.55 0.36434 (07121805)
313551.45 3995581.55 0.37121 (07121805) 313571.45
3995581.55 0.37073 (09012118)
313591.45 3995581.55 0.37084 (09022819) 313611.45
3995581.55 0.37253 (09022819)
313631.45 3995581.55 0.37057 (09022819) 313651.45
3995581.55 0.36590 (06121917)
313671.45 3995581.55 0.35825 (08120422) 313691.45
3995581.55 0.34735 (07022819)
313711.45 3995581.55 0.33330 (07022819) 313731.45
3995581.55 0.31981 (07022819)
313751.45 3995581.55 0.31673 (07022819) 313771.45
3995581.55 0.31937 (07022819)
313791.45 3995581.55 0.32957 (07022819) 313811.45
3995581.55 0.34994 (07022819)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH) X-COORD (M)
Y-COORD (M) CONC (YYMMDDHH)
- -
313831.45 3995581.55 0.36788 (06120717) 313851.45
3995581.55 0.37780 (06120717)

313871.45 3995581.55 0.37867 (06120717) 313891.45
3995581.55 0.37998 (07022520)
313911.45 3995581.55 0.38020 (09010318) 313931.45
3995581.55 0.38267 (09010318)
313951.45 3995581.55 0.38421 (07022018) 313971.45
3995581.55 0.37654 (06021018)
313991.45 3995581.55 0.35953 (07021118) 314011.45
3995581.55 0.33751 (07021118)
314031.45 3995581.55 0.31496 (09020520) 314051.45
3995581.55 0.29312 (08012217)
314071.45 3995581.55 0.27522 (06022319) 314091.45
3995581.55 0.26061 (09020218)
314111.45 3995581.55 0.24655 (09020218) 314131.45
3995581.55 0.23361 (09012502)
314151.45 3995581.55 0.22228 (07021518) 314171.45
3995581.55 0.21358 (07021518)
314191.45 3995581.55 0.20521 (07021518) 314211.45
3995581.55 0.19723 (09011917)
314231.45 3995581.55 0.19006 (09011917) 314251.45
3995581.55 0.18311 (06010417)
314271.45 3995581.55 0.17660 (06010417) 313271.45
3995601.55 0.18106 (07012802)
313291.45 3995601.55 0.18882 (07012802) 313311.45
3995601.55 0.19707 (08122502)
313331.45 3995601.55 0.20578 (08122502) 313351.45
3995601.55 0.21531 (09020219)
313371.45 3995601.55 0.22577 (09012119) 313391.45
3995601.55 0.23751 (09012119)
313411.45 3995601.55 0.25003 (09012119) 313431.45
3995601.55 0.26464 (07021120)
313451.45 3995601.55 0.28160 (08022322) 313471.45
3995601.55 0.30294 (08022322)
313491.45 3995601.55 0.32645 (08120324) 313511.45
3995601.55 0.35170 (07021304)
313531.45 3995601.55 0.38049 (07121805) 313551.45
3995601.55 0.39949 (07121805)
313571.45 3995601.55 0.39810 (07121805) 313591.45
3995601.55 0.39768 (09012118)
313611.45 3995601.55 0.39921 (09022819) 313631.45
3995601.55 0.39894 (09022819)
313651.45 3995601.55 0.39484 (07022019) 313671.45
3995601.55 0.38703 (08120422)
313691.45 3995601.55 0.37505 (07022819) 313711.45
3995601.55 0.35264 (07022819)
313731.45 3995601.55 0.33522 (07022819) 313751.45
3995601.55 0.33348 (07022819)
313771.45 3995601.55 0.33601 (07022819) 313791.45
3995601.55 0.34682 (07022819)
313811.45 3995601.55 0.37484 (07022819) 313831.45
3995601.55 0.39753 (06120717)

313851.45   3995601.55   0.40593 (06120717)   313871.45
3995601.55   0.40594 (06120717)
313891.45   3995601.55   0.40781 (07022520)   313911.45
3995601.55   0.40949 (09010318)
313931.45   3995601.55   0.41239 (07021419)   313951.45
3995601.55   0.41399 (07022018)
313971.45   3995601.55   0.39978 (09121517)   313991.45
3995601.55   0.37569 (07021118)
314011.45   3995601.55   0.34439 (09020520)   314031.45
3995601.55   0.31619 (08012217)
314051.45   3995601.55   0.29407 (09020218)   314071.45
3995601.55   0.27619 (09020218)
314091.45   3995601.55   0.25984 (09020218)   314111.45
3995601.55   0.24502 (09012502)
314131.45   3995601.55   0.23257 (07021518)   314151.45
3995601.55   0.22254 (07021518)
314171.45   3995601.55   0.21311 (07021518)   314191.45
3995601.55   0.20436 (09011917)
314211.45   3995601.55   0.19641 (09011917)   314231.45
3995601.55   0.18885 (06010417)
314251.45   3995601.55   0.18221 (09011717)   314271.45
3995601.55   0.17655 (09011717)
313271.45   3995621.55   0.18071 (06022220)   313291.45
3995621.55   0.18700 (07012802)
313311.45   3995621.55   0.19536 (07012802)   313331.45
3995621.55   0.20435 (08122502)
313351.45   3995621.55   0.21387 (09020219)   313371.45
3995621.55   0.22434 (09020219)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
- -

313391.45 3995621.55 0.23610 (09012119) 313411.45
3995621.55 0.24918 (09012119)
313431.45 3995621.55 0.26338 (09012119) 313451.45
3995621.55 0.28060 (07021120)
313471.45 3995621.55 0.30127 (08022322) 313491.45
3995621.55 0.32702 (08022322)
313511.45 3995621.55 0.35793 (08120324) 313531.45
3995621.55 0.39339 (06010506)
313551.45 3995621.55 0.43051 (07121805) 313571.45
3995621.55 0.43588 (07121805)
313591.45 3995621.55 0.43272 (09012118) 313611.45
3995621.55 0.43220 (09022819)
313631.45 3995621.55 0.43306 (09022819) 313651.45
3995621.55 0.43125 (09022819)
313671.45 3995621.55 0.42423 (06121917) 313691.45
3995621.55 0.41050 (07022819)
313711.45 3995621.55 0.37461 (06120717) 313731.45
3995621.55 0.35340 (07022819)
313751.45 3995621.55 0.35383 (07022819) 313771.45
3995621.55 0.35608 (07022819)
313791.45 3995621.55 0.36598 (07022819) 313811.45
3995621.55 0.40723 (07022819)
313831.45 3995621.55 0.43427 (06120717) 313851.45
3995621.55 0.43986 (06120717)
313871.45 3995621.55 0.44043 (07022520) 313891.45
3995621.55 0.44223 (07022520)
313911.45 3995621.55 0.44571 (09010318) 313931.45
3995621.55 0.45017 (07022018)
313951.45 3995621.55 0.45090 (06021018) 313971.45
3995621.55 0.42806 (07021118)
313991.45 3995621.55 0.38394 (09120417) 314011.45
3995621.55 0.34538 (09020520)
314031.45 3995621.55 0.31633 (09021918) 314051.45
3995621.55 0.29421 (09020218)
314071.45 3995621.55 0.27502 (09020218) 314091.45
3995621.55 0.25787 (09012502)
314111.45 3995621.55 0.24373 (07021518) 314131.45
3995621.55 0.23228 (07021518)
314151.45 3995621.55 0.22171 (07021518) 314171.45
3995621.55 0.21203 (09011917)
314191.45 3995621.55 0.20321 (09011917) 314211.45
3995621.55 0.19495 (06010417)
314231.45 3995621.55 0.18823 (09011717) 314251.45
3995621.55 0.18192 (09011717)
314271.45 3995621.55 0.17586 (09011717) 313271.45
3995641.55 0.18054 (06022220)
313291.45 3995641.55 0.18658 (06022220) 313311.45
3995641.55 0.19344 (07012802)
313331.45 3995641.55 0.20251 (07012802) 313351.45
3995641.55 0.21236 (08122502)

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        313371.45   3995641.55        0.22286  (09020219)                313391.45
3995641.55        0.23441  (09020219)
        313411.45   3995641.55        0.24771  (09012119)                313431.45
3995641.55        0.26245  (09012119)
        313451.45   3995641.55        0.27888  (06010119)                313471.45
3995641.55        0.29927  (07021120)
        313491.45   3995641.55        0.32492  (08022322)                313511.45
3995641.55        0.35688  (08022322)
        313531.45   3995641.55        0.39977  (08120324)                313551.45
3995641.55        0.45591  (07121805)
        313571.45   3995641.55        0.47909  (07121805)                313591.45
3995641.55        0.47416  (07121805)
        313611.45   3995641.55        0.47046  (09012118)                313631.45
3995641.55        0.46899  (09022819)
        313651.45   3995641.55        0.46839  (09022819)                313671.45
3995641.55        0.46312  (07022019)
        313691.45   3995641.55        0.44590  (07022819)                313711.45
3995641.55        0.39298  (06120717)
        313731.45   3995641.55        0.37661  (07022819)                313751.45
3995641.55        0.37892  (07022819)
        313771.45   3995641.55        0.38134  (06120717)                313791.45
3995641.55        0.38696  (07022819)
        313811.45   3995641.55        0.44486  (07022819)                313971.45
3995641.55        0.43910  (09120417)
        313991.45   3995641.55        0.38325  (09020520)                314011.45
3995641.55        0.34392  (09021918)
        314031.45   3995641.55        0.31564  (09020218)                314051.45
3995641.55        0.29278  (09020218)
        314071.45   3995641.55        0.27292  (09020218)                314091.45
3995641.55        0.25616  (07021518)
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                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA1      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC      (YYMMDDHH)               X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
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 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
        314111.45   3995641.55        0.24312  (07021518)                314131.45
3995641.55        0.23122  (07021518)
        314151.45   3995641.55        0.22042  (09011917)                314171.45
3995641.55        0.21062  (09011917)
        314191.45   3995641.55        0.20187  (09011717)                314211.45
3995641.55        0.19449  (09011717)
        314231.45   3995641.55        0.18748  (09011717)                314251.45
3995641.55        0.18088  (09022618)
        314271.45   3995641.55        0.17519  (09022618)                313271.45
3995661.55        0.18010  (06022220)
        313291.45   3995661.55        0.18638  (06022220)                313311.45
3995661.55        0.19296  (06022220)
        313331.45   3995661.55        0.20049  (07012802)                313351.45
3995661.55        0.21038  (07012802)
        313371.45   3995661.55        0.22122  (08122502)                313391.45
3995661.55        0.23289  (09020219)
        313411.45   3995661.55        0.24577  (09020219)                313431.45
3995661.55        0.26094  (09012119)
        313451.45   3995661.55        0.27778  (09012119)                313471.45
3995661.55        0.29726  (07021120)
        313491.45   3995661.55        0.32183  (07021120)                313511.45
3995661.55        0.35439  (08022322)
        313531.45   3995661.55        0.39688  (08120324)                313971.45
3995661.55        0.43633  (09120417)
        313991.45   3995661.55        0.38003  (09020520)                314011.45
3995661.55        0.34214  (09020218)
        314031.45   3995661.55        0.31415  (09020218)                314051.45
3995661.55        0.29071  (09020218)
        314071.45   3995661.55        0.27066  (09012502)                314091.45
3995661.55        0.25541  (07021518)
        314111.45   3995661.55        0.24193  (07021518)                314131.45
3995661.55        0.22975  (09011917)
        314151.45   3995661.55        0.21881  (09011917)                314171.45
3995661.55        0.20934  (09011717)
        314191.45   3995661.55        0.20111  (09011717)                314211.45
3995661.55        0.19335  (09011717)
        314231.45   3995661.55        0.18662  (09022618)                314251.45
3995661.55        0.18030  (09022618)
        314271.45   3995661.55        0.17429  (09022618)                313271.45
3995681.55        0.17923  (06022220)
        313291.45   3995681.55        0.18588  (06022220)                313311.45
3995681.55        0.19276  (06022220)
        313331.45   3995681.55        0.19996  (06022220)                313351.45
3995681.55        0.20825  (07012802)
        313371.45   3995681.55        0.21907  (07012802)                313391.45
3995681.55        0.23111  (08122502)
        313411.45   3995681.55        0.24420  (09020219)                313431.45
3995681.55        0.25881  (09012119)
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313451.45   3995681.55   0.27624 (09012119)   313471.45
3995681.55   0.29585 (09012119)
313491.45   3995681.55   0.31977 (07021120)   313511.45
3995681.55   0.35103 (08022322)
313531.45   3995681.55   0.39358 (08022322)   313971.45
3995681.55   0.43270 (09120417)
313991.45   3995681.55   0.37735 (09021918)   314011.45
3995681.55   0.34075 (09020218)
314031.45   3995681.55   0.31218 (09020218)   314051.45
3995681.55   0.28810 (09012502)
314071.45   3995681.55   0.26963 (07021518)   314091.45
3995681.55   0.25416 (07021518)
314111.45   3995681.55   0.24026 (09011917)   314131.45
3995681.55   0.22794 (09011917)
314151.45   3995681.55   0.21748 (09011717)   314171.45
3995681.55   0.20830 (09011717)
314191.45   3995681.55   0.20000 (09022618)   314211.45
3995681.55   0.19257 (09022618)
314231.45   3995681.55   0.18556 (09022618)   314251.45
3995681.55   0.17893 (06010917)
314271.45   3995681.55   0.17329 (09120317)   313271.45
3995701.55   0.17868 (08120622)
313291.45   3995701.55   0.18492 (06121403)   313311.45
3995701.55   0.19217 (06022220)
313331.45   3995701.55   0.19972 (06022220)   313351.45
3995701.55   0.20768 (06022220)
313371.45   3995701.55   0.21683 (07012802)   313391.45
3995701.55   0.22882 (08122502)
313411.45   3995701.55   0.24224 (08122502)   313431.45
3995701.55   0.25706 (09020219)
313451.45   3995701.55   0.27403 (09012119)   313471.45
3995701.55   0.29426 (09012119)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
313491.45	3995701.55	0.31757	(09012119)	313511.45	3995701.55	0.34795	(07021120)
313531.45	3995701.55	0.38994	(08022322)	313971.45	3995701.55	0.42908	(09020520)
313991.45	3995701.55	0.37518	(09020218)	314011.45	3995701.55	0.33893	(09020218)
314031.45	3995701.55	0.30947	(09020218)	314051.45	3995701.55	0.28640	(07021518)
314071.45	3995701.55	0.26833	(07021518)	314091.45	3995701.55	0.25225	(09011917)
314111.45	3995701.55	0.23824	(06010417)	314131.45	3995701.55	0.22652	(09011717)
314151.45	3995701.55	0.21616	(09011717)	314171.45	3995701.55	0.20716	(09022618)
314191.45	3995701.55	0.19886	(09022618)	314211.45	3995701.55	0.19105	(09022618)
314231.45	3995701.55	0.18440	(09120317)	314251.45	3995701.55	0.17823	(09120317)
314271.45	3995701.55	0.17241	(09120317)	313271.45	3995721.55	0.17814	(08120622)
313291.45	3995721.55	0.18444	(08120622)	313311.45	3995721.55	0.19121	(06121403)
313331.45	3995721.55	0.19902	(06022220)	313351.45	3995721.55	0.20738	(06022220)
313371.45	3995721.55	0.21624	(06022220)	313391.45	3995721.55	0.22638	(07012802)
313411.45	3995721.55	0.23982	(08122502)	313431.45	3995721.55	0.25492	(08122502)
313451.45	3995721.55	0.27194	(09020219)	313471.45	3995721.55	0.29195	(09012119)
313491.45	3995721.55	0.31588	(09012119)	313511.45	3995721.55	0.34501	(06010119)
313531.45	3995721.55	0.38488	(08022322)	313971.45	3995721.55	0.42508	(09020520)
313991.45	3995721.55	0.37344	(09020218)	314011.45	3995721.55	0.33636	(09020218)
314031.45	3995721.55	0.30667	(07021518)	314051.45	3995721.55	0.28507	(07021518)
314071.45	3995721.55	0.26614	(09011917)	314091.45	3995721.55	0.24999	(06010417)
314111.45	3995721.55	0.23664	(09011717)	314131.45	3995721.55	0.22501	(09022618)
314151.45	3995721.55	0.21493	(09022618)	314171.45	3995721.55	0.20557	(09022618)
314191.45	3995721.55	0.19738	(09120317)	314211.45	3995721.55	0.19006	(09120317)

314231.45 3995721.55 0.18337 (08011220) 314251.45
3995721.55 0.17740 (08011220)
314271.45 3995721.55 0.17193 (08021818) 313271.45
3995741.55 0.17706 (08120622)
313291.45 3995741.55 0.18376 (08120622) 313311.45
3995741.55 0.19069 (08120622)
313331.45 3995741.55 0.19806 (06121403) 313351.45
3995741.55 0.20654 (06022220)
313371.45 3995741.55 0.21583 (06022220) 313391.45
3995741.55 0.22577 (06022220)
313411.45 3995741.55 0.23714 (07012802) 313431.45
3995741.55 0.25235 (08122502)
313451.45 3995741.55 0.26956 (08122502) 313471.45
3995741.55 0.28942 (09020219)
313491.45 3995741.55 0.31341 (09012119) 313511.45
3995741.55 0.34295 (09012119)
313531.45 3995741.55 0.38144 (07021120) 313971.45
3995741.55 0.42050 (09021918)
313991.45 3995741.55 0.37106 (09020218) 314011.45
3995741.55 0.33280 (09012502)
314031.45 3995741.55 0.30532 (07021518) 314051.45
3995741.55 0.28269 (07021518)
314071.45 3995741.55 0.26358 (06010417) 314091.45
3995741.55 0.24814 (09011717)
314111.45 3995741.55 0.23497 (09022618) 314131.45
3995741.55 0.22344 (09022618)
314151.45 3995741.55 0.21302 (09120317) 314171.45
3995741.55 0.20414 (09120317)
314191.45 3995741.55 0.19647 (08021818) 314211.45
3995741.55 0.18949 (08021818)
314231.45 3995741.55 0.18303 (08021818) 314251.45
3995741.55 0.17700 (08021818)
314271.45 3995741.55 0.17141 (09012306) 313271.45
3995761.55 0.17574 (06120918)

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
313291.45	3995761.55	0.18246	(08120622)	313311.45	3995761.55	0.18982	(08120622)
313331.45	3995761.55	0.19747	(08120622)	313351.45	3995761.55	0.20556	(06121403)
313371.45	3995761.55	0.21483	(06022220)	313391.45	3995761.55	0.22524	(06022220)
313411.45	3995761.55	0.23648	(06022220)	313431.45	3995761.55	0.24937	(07012802)
313451.45	3995761.55	0.26680	(08122502)	313471.45	3995761.55	0.28676	(08122502)
313491.45	3995761.55	0.31050	(09020219)	313511.45	3995761.55	0.34028	(09012119)
313531.45	3995761.55	0.37819	(09012119)	313971.45	3995761.55	0.41724	(09020218)
313991.45	3995761.55	0.36763	(09020218)	314011.45	3995761.55	0.33059	(07021518)
314031.45	3995761.55	0.30276	(07021518)	314051.45	3995761.55	0.27960	(06010417)
314071.45	3995761.55	0.26134	(09011717)	314091.45	3995761.55	0.24619	(09022618)
314111.45	3995761.55	0.23279	(09022618)	314131.45	3995761.55	0.22143	(09120317)
314151.45	3995761.55	0.21207	(08021818)	314171.45	3995761.55	0.20355	(08021818)
314191.45	3995761.55	0.19574	(09012306)	314211.45	3995761.55	0.18873	(09012306)
314231.45	3995761.55	0.18223	(09012306)	314251.45	3995761.55	0.17622	(08022918)
314271.45	3995761.55	0.17079	(08022918)	313271.45	3995781.55	0.17562	(06120918)
313291.45	3995781.55	0.18149	(06120918)	313311.45	3995781.55	0.18825	(08120622)
313331.45	3995781.55	0.19638	(08120622)	313351.45	3995781.55	0.20488	(08120622)
313371.45	3995781.55	0.21388	(08120622)	313391.45	3995781.55	0.22401	(06022220)
313411.45	3995781.55	0.23577	(06022220)	313431.45	3995781.55	0.24864	(06022220)
313451.45	3995781.55	0.26348	(07012802)	313471.45	3995781.55	0.28377	(08122502)
313491.45	3995781.55	0.30752	(09020219)	313511.45	3995781.55	0.33663	(09012119)
313531.45	3995781.55	0.37520	(09012119)	313971.45	3995781.55	0.41411	(09020218)

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        313991.45   3995781.55        0.36307  (07021518)                314011.45
3995781.55        0.32787  (07021518)
        314031.45   3995781.55        0.29895  (06010417)                314051.45
3995781.55        0.27677  (09011717)
        314071.45   3995781.55        0.25895  (09022618)                314091.45
3995781.55        0.24351  (08022918)
        314111.45   3995781.55        0.23178  (08022918)                314131.45
3995781.55        0.22144  (08022918)
        314151.45   3995781.55        0.21221  (08022918)                314171.45
3995781.55        0.20389  (08022918)
        314191.45   3995781.55        0.19633  (08022918)                314211.45
3995781.55        0.18940  (08022918)
        314231.45   3995781.55        0.18303  (08022918)                314251.45
3995781.55        0.17712  (08022918)
        314271.45   3995781.55        0.17164  (08022918)                313271.45
3995801.55        0.17502  (06120918)
        313291.45   3995801.55        0.18123  (06120918)                313311.45
3995801.55        0.18772  (06120918)
        313331.45   3995801.55        0.19458  (06120918)                313351.45
3995801.55        0.20352  (08120622)
        313371.45   3995801.55        0.21300  (08120622)                313391.45
3995801.55        0.22313  (08120622)
        313411.45   3995801.55        0.23433  (06121403)                313431.45
3995801.55        0.24772  (06022220)
        313451.45   3995801.55        0.26263  (06022220)                313471.45
3995801.55        0.28007  (07012802)
        313491.45   3995801.55        0.30418  (08122502)                313511.45
3995801.55        0.33330  (09020219)
        313531.45   3995801.55        0.37120  (09012119)                313971.45
3995801.55        0.40913  (09020218)
        313991.45   3995801.55        0.36023  (07021518)                314011.45
3995801.55        0.32302  (06010417)
        314031.45   3995801.55        0.29539  (09022618)                314051.45
3995801.55        0.27359  (09012307)
        314071.45   3995801.55        0.25753  (09012307)                314091.45
3995801.55        0.24378  (09012307)
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                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA1      ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
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** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
314111.45	3995801.55	0.23196	(08022918)	314131.45	3995801.55	0.22154	(08022918)
314151.45	3995801.55	0.21221	(08022918)	314171.45	3995801.55	0.20378	(08022918)
314191.45	3995801.55	0.19610	(08022918)	314211.45	3995801.55	0.18906	(08022918)
314231.45	3995801.55	0.18259	(08022918)	314251.45	3995801.55	0.17660	(08022918)
314271.45	3995801.55	0.17105	(08022918)	313271.45	3995821.55	0.17376	(06120918)
313291.45	3995821.55	0.18036	(06120918)	313311.45	3995821.55	0.18723	(06120918)
313331.45	3995821.55	0.19444	(06120918)	313351.45	3995821.55	0.20211	(06120918)
313371.45	3995821.55	0.21132	(08120622)	313391.45	3995821.55	0.22197	(08120622)
313411.45	3995821.55	0.23346	(08120622)	313431.45	3995821.55	0.24618	(06121403)
313451.45	3995821.55	0.26143	(06022220)	313471.45	3995821.55	0.27896	(06022220)
313491.45	3995821.55	0.30002	(07012802)	313511.45	3995821.55	0.32945	(08122502)
313531.45	3995821.55	0.36681	(09020219)	313971.45	3995821.55	0.40112	(07021518)
313991.45	3995821.55	0.35380	(06010417)	314011.45	3995821.55	0.31827	(09022618)
314031.45	3995821.55	0.29341	(07120517)	314051.45	3995821.55	0.27431	(07120517)
314071.45	3995821.55	0.25832	(09012307)	314091.45	3995821.55	0.24469	(09012307)
314111.45	3995821.55	0.23280	(09012307)	314131.45	3995821.55	0.22229	(09012307)
314151.45	3995821.55	0.21290	(09012307)	314171.45	3995821.55	0.20441	(09012307)
314191.45	3995821.55	0.19669	(09012307)	314211.45	3995821.55	0.18962	(09012307)
314231.45	3995821.55	0.18311	(09012307)	314251.45	3995821.55	0.17708	(09012307)
314271.45	3995821.55	0.17148	(09012307)	313271.45	3995841.55	0.17312	(06020820)
313291.45	3995841.55	0.17916	(06020820)	313311.45	3995841.55	0.18603	(06120918)

313331.45 3995841.55 0.19367 (06120918) 313351.45
3995841.55 0.20172 (06120918)
313371.45 3995841.55 0.21035 (06120918) 313391.45
3995841.55 0.21991 (08120622)
313411.45 3995841.55 0.23197 (08120622) 313431.45
3995841.55 0.24509 (08120622)
313451.45 3995841.55 0.25974 (08120622) 313471.45
3995841.55 0.27746 (06022220)
313491.45 3995841.55 0.29852 (06022220) 313511.45
3995841.55 0.32476 (07012802)
313531.45 3995841.55 0.36222 (08122502) 313971.45
3995841.55 0.39261 (07021518)
313991.45 3995841.55 0.34698 (08010217) 314011.45
3995841.55 0.31715 (09011417)
314031.45 3995841.55 0.29362 (09011417) 314051.45
3995841.55 0.27450 (06010518)
314071.45 3995841.55 0.25847 (06010518) 314091.45
3995841.55 0.24472 (06010518)
314111.45 3995841.55 0.23271 (06010518) 314131.45
3995841.55 0.22208 (06010518)
314151.45 3995841.55 0.21257 (06010518) 314171.45
3995841.55 0.20398 (07120517)
314191.45 3995841.55 0.19623 (07120517) 314211.45
3995841.55 0.18920 (09012307)
314231.45 3995841.55 0.18275 (09012307) 314251.45
3995841.55 0.17681 (09012307)
314271.45 3995841.55 0.17131 (09012307) 313271.45
3995861.55 0.17218 (08022118)
313291.45 3995861.55 0.17834 (06020820) 313311.45
3995861.55 0.18506 (06020820)
313331.45 3995861.55 0.19213 (06020820) 313351.45
3995861.55 0.20059 (06120918)
313371.45 3995861.55 0.20964 (06120918) 313391.45
3995861.55 0.21939 (06120918)
313411.45 3995861.55 0.23004 (06120918) 313431.45
3995861.55 0.24321 (08120622)
313451.45 3995861.55 0.25840 (08120622) 313471.45
3995861.55 0.27563 (08120622)

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
313491.45	3995861.55	0.29658	(06022220)	313511.45	3995861.55	0.32258	(06022220)
313531.45	3995861.55	0.35686	(08122502)	313991.45	3995861.55	0.34848	(08010217)
314011.45	3995861.55	0.31869	(08010217)	314031.45	3995861.55	0.29458	(08010217)
314051.45	3995861.55	0.27491	(09011417)	314071.45	3995861.55	0.25873	(09011417)
314091.45	3995861.55	0.24482	(09011417)	314111.45	3995861.55	0.23266	(09011417)
314131.45	3995861.55	0.22186	(09011417)	314151.45	3995861.55	0.21216	(09011417)
314171.45	3995861.55	0.20334	(09011417)	314191.45	3995861.55	0.19552	(06010518)
314211.45	3995861.55	0.18854	(06010518)	314231.45	3995861.55	0.18212	(06010518)
314251.45	3995861.55	0.17619	(06010518)	314271.45	3995861.55	0.17068	(06010518)
313271.45	3995881.55	0.17212	(08022118)	313291.45	3995881.55	0.17786	(08022118)
313311.45	3995881.55	0.18395	(08022118)	313331.45	3995881.55	0.19132	(06020820)
313351.45	3995881.55	0.19925	(06020820)	313371.45	3995881.55	0.20807	(06120918)
313391.45	3995881.55	0.21830	(06120918)	313411.45	3995881.55	0.22939	(06120918)
313431.45	3995881.55	0.24165	(06120918)	313451.45	3995881.55	0.25606	(08120622)
313471.45	3995881.55	0.27389	(08120622)	313491.45	3995881.55	0.29456	(08120622)
313511.45	3995881.55	0.32014	(06022220)	313531.45	3995881.55	0.35323	(06022220)
313991.45	3995881.55	0.34953	(08120204)	314011.45	3995881.55	0.31877	(08120204)
314031.45	3995881.55	0.29443	(08010217)	314051.45	3995881.55	0.27488	(08010217)
314071.45	3995881.55	0.25847	(08010217)	314091.45	3995881.55	0.24434	(08010217)
314111.45	3995881.55	0.23191	(08010217)	314131.45	3995881.55	0.22079	(08010217)

314151.45 3995881.55 0.21135 (09011417) 314171.45
3995881.55 0.20296 (09011417)
314191.45 3995881.55 0.19531 (09011417) 314211.45
3995881.55 0.18826 (09011417)
314231.45 3995881.55 0.18173 (09011417) 314251.45
3995881.55 0.17564 (09011417)
314271.45 3995881.55 0.16992 (09011417) 313291.45
3995901.55 0.17747 (08022118)
313311.45 3995901.55 0.18387 (08022118) 313331.45
3995901.55 0.19067 (08022118)
313351.45 3995901.55 0.19799 (06020820) 313371.45
3995901.55 0.20692 (06020820)
313391.45 3995901.55 0.21657 (06020820) 313411.45
3995901.55 0.22783 (06120918)
313431.45 3995901.55 0.24058 (06120918) 313451.45
3995901.55 0.25483 (06120918)
313471.45 3995901.55 0.27115 (06120918) 313491.45
3995901.55 0.29230 (08120622)
313511.45 3995901.55 0.31772 (08120622) 313531.45
3995901.55 0.35021 (06022220)
313991.45 3995901.55 0.34628 (08012621) 314011.45
3995901.55 0.31522 (06121422)
314031.45 3995901.55 0.29104 (06010820) 314051.45
3995901.55 0.27178 (06010820)
314071.45 3995901.55 0.25568 (08120204) 314091.45
3995901.55 0.24171 (08120204)
314111.45 3995901.55 0.22957 (08010217) 314131.45
3995901.55 0.21948 (08010217)
314151.45 3995901.55 0.21030 (08010217) 314171.45
3995901.55 0.20186 (08010217)
314191.45 3995901.55 0.19403 (08010217) 314211.45
3995901.55 0.18671 (08010217)
314231.45 3995901.55 0.18012 (09011417) 314251.45
3995901.55 0.17453 (09011417)
314271.45 3995901.55 0.16929 (09011417) 313311.45
3995921.55 0.18361 (07120419)
313331.45 3995921.55 0.19059 (07120419) 313351.45
3995921.55 0.19812 (07120419)
313371.45 3995921.55 0.20632 (07120419) 313391.45
3995921.55 0.21563 (06021301)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
313411.45	3995921.55	0.22621	(06020820)	313431.45	3995921.55	0.23845	(06120918)
313451.45	3995921.55	0.25323	(06120918)	313471.45	3995921.55	0.27003	(06120918)
313491.45	3995921.55	0.28968	(06120918)	313511.45	3995921.55	0.31484	(08120622)
313531.45	3995921.55	0.34713	(08120622)	313991.45	3995921.55	0.32167	(06010418)
314011.45	3995921.55	0.30137	(06010806)	314031.45	3995921.55	0.28363	(08012621)
314051.45	3995921.55	0.26596	(08120308)	314071.45	3995921.55	0.25081	(06121422)
314091.45	3995921.55	0.23793	(06010820)	314111.45	3995921.55	0.22663	(06010820)
314131.45	3995921.55	0.21664	(08120204)	314151.45	3995921.55	0.20752	(08120204)
314171.45	3995921.55	0.19889	(08120204)	314191.45	3995921.55	0.19196	(08010217)
314211.45	3995921.55	0.18554	(08010217)	314231.45	3995921.55	0.17944	(08010217)
314251.45	3995921.55	0.17365	(08010217)	314271.45	3995921.55	0.16810	(08010217)
313331.45	3995941.55	0.19073	(06021301)	313351.45	3995941.55	0.19826	(06021301)
313371.45	3995941.55	0.20661	(07021520)	313391.45	3995941.55	0.21576	(07021520)
313411.45	3995941.55	0.22615	(07013024)	313431.45	3995941.55	0.23812	(07013024)
313451.45	3995941.55	0.25176	(06010522)	313471.45	3995941.55	0.26781	(06120918)
313491.45	3995941.55	0.28799	(06120918)	313511.45	3995941.55	0.31219	(06120918)
313531.45	3995941.55	0.34347	(08120622)	313991.45	3995941.55	0.29311	(06010418)
314011.45	3995941.55	0.28293	(06010418)	314031.45	3995941.55	0.26811	(06010418)
314051.45	3995941.55	0.25665	(08012621)	314071.45	3995941.55	0.24498	(08012621)

314091.45 3995941.55 0.23311 (08120308) 314111.45
3995941.55 0.22241 (06121422)
314131.45 3995941.55 0.21274 (06010820) 314151.45
3995941.55 0.20460 (06010820)
314171.45 3995941.55 0.19670 (08120204) 314191.45
3995941.55 0.18984 (08120204)
314211.45 3995941.55 0.18318 (08120204) 314231.45
3995941.55 0.17672 (08120204)
314251.45 3995941.55 0.17160 (08010217) 314271.45
3995941.55 0.16679 (08010217)
313351.45 3995961.55 0.19829 (07021520) 313371.45
3995961.55 0.20675 (07013024)
313391.45 3995961.55 0.21615 (07013024) 313411.45
3995961.55 0.22658 (06010522)
313431.45 3995961.55 0.23856 (06010522) 313451.45
3995961.55 0.25232 (06122620)
313471.45 3995961.55 0.26837 (06022607) 313491.45
3995961.55 0.28768 (09020523)
313511.45 3995961.55 0.31142 (08122503) 313531.45
3995961.55 0.34172 (08122503)
313991.45 3995961.55 0.27980 (06010418) 314011.45
3995961.55 0.26721 (06010418)
314031.45 3995961.55 0.25707 (06010418) 314051.45
3995961.55 0.24574 (06010418)
314071.45 3995961.55 0.23581 (06010806) 314091.45
3995961.55 0.22715 (08012621)
314111.45 3995961.55 0.21816 (08012621) 314131.45
3995961.55 0.20926 (08120308)
314151.45 3995961.55 0.20115 (06121422) 314171.45
3995961.55 0.19346 (06010820)
314191.45 3995961.55 0.18721 (06010820) 314211.45
3995961.55 0.18100 (06010820)
314231.45 3995961.55 0.17532 (08120204) 314251.45
3995961.55 0.17002 (08120204)
314271.45 3995961.55 0.16481 (08120204) 313371.45
3995981.55 0.20710 (06010522)
313391.45 3995981.55 0.21653 (06010522) 313411.45
3995981.55 0.22704 (06122620)
313431.45 3995981.55 0.23906 (06122620) 313451.45
3995981.55 0.25279 (09020523)
313471.45 3995981.55 0.26885 (09020523) 313491.45
3995981.55 0.28839 (08122503)

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
313511.45	3995981.55	0.31218	(08122503)	313531.45	3995981.55	0.34325	(09020418)
313991.45	3995981.55	0.27783	(06010418)	314011.45	3995981.55	0.26066	(06010418)
314031.45	3995981.55	0.24831	(06010418)	314051.45	3995981.55	0.23839	(06010418)
314071.45	3995981.55	0.22862	(06010418)	314091.45	3995981.55	0.21967	(06010806)
314111.45	3995981.55	0.21247	(08012621)	314131.45	3995981.55	0.20541	(08012621)
314151.45	3995981.55	0.19801	(08012621)	314171.45	3995981.55	0.19095	(08120308)
314191.45	3995981.55	0.18452	(06121422)	314211.45	3995981.55	0.17822	(06010820)
314231.45	3995981.55	0.17318	(06010820)	314251.45	3995981.55	0.16813	(06010820)
314271.45	3995981.55	0.16327	(08120204)	313391.45	3996001.55	0.21697	(06122620)
313411.45	3996001.55	0.22748	(06022607)	313431.45	3996001.55	0.23948	(09020523)
313451.45	3996001.55	0.25317	(08122503)	313471.45	3996001.55	0.26964	(08122503)
313491.45	3996001.55	0.28879	(08122503)	313511.45	3996001.55	0.31346	(09020418)
313531.45	3996001.55	0.34472	(09020418)	313991.45	3996001.55	0.28194	(06010417)
314011.45	3996001.55	0.27093	(09011717)	314031.45	3996001.55	0.25788	(09022618)
314051.45	3996001.55	0.24422	(09022618)	314071.45	3996001.55	0.23227	(09120317)
314091.45	3996001.55	0.22144	(09120317)	314111.45	3996001.55	0.21126	(08120323)
314131.45	3996001.55	0.20262	(08011220)	314151.45	3996001.55	0.19460	(08011220)
314171.45	3996001.55	0.18841	(08012621)	314191.45	3996001.55	0.18225	(08120308)

314211.45   3996001.55   0.17632 (06121422)   314231.45
3996001.55   0.17109 (06121422)
314251.45   3996001.55   0.16584 (06010820)   314271.45
3996001.55   0.16161 (06010820)
313411.45   3996021.55   0.22775 (09020523)   313431.45
3996021.55   0.23998 (08122503)
313451.45   3996021.55   0.25392 (08122503)   313471.45
3996021.55   0.26974 (08122503)
313491.45   3996021.55   0.29019 (09020418)   313511.45
3996021.55   0.31468 (09020418)
313531.45   3996021.55   0.34495 (09020418)   313991.45
3996021.55   0.31315 (09022618)
314011.45   3996021.55   0.29070 (09022618)   314031.45
3996021.55   0.27125 (09120317)
314051.45   3996021.55   0.25401 (09120317)   314071.45
3996021.55   0.23975 (08011220)
314091.45   3996021.55   0.22732 (08011220)   314111.45
3996021.55   0.21662 (08021818)
314131.45   3996021.55   0.20688 (08021818)   314151.45
3996021.55   0.19837 (09012306)
314171.45   3996021.55   0.19060 (09012306)   314191.45
3996021.55   0.18339 (09012306)
314211.45   3996021.55   0.17666 (09012306)   314231.45
3996021.55   0.17091 (08022918)
314251.45   3996021.55   0.16588 (08022918)   314271.45
3996021.55   0.16116 (08022918)
313431.45   3996041.55   0.24036 (08122503)   313451.45
3996041.55   0.25401 (09020418)
313471.45   3996041.55   0.27133 (09020418)   313491.45
3996041.55   0.29118 (09020418)
313511.45   3996041.55   0.31484 (09020418)   313531.45
3996041.55   0.34561 (07020819)
313991.45   3996041.55   0.33442 (08011220)   314011.45
3996041.55   0.30464 (08021818)
314031.45   3996041.55   0.28100 (08021818)   314051.45
3996041.55   0.26179 (09012306)
314071.45   3996041.55   0.24595 (09012306)   314091.45
3996041.55   0.23235 (09012306)
314111.45   3996041.55   0.22045 (09012306)   314131.45
3996041.55   0.21056 (08022918)
314151.45   3996041.55   0.20186 (08022918)   314171.45
3996041.55   0.19403 (08022918)
314191.45   3996041.55   0.18691 (08022918)   314211.45
3996041.55   0.18040 (08022918)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
314231.45	3996041.55	0.17441	(08022918)	314251.45	3996041.55	0.16885	(08022918)
314271.45	3996041.55	0.16368	(08022918)	313991.45	3996061.55	0.34328	(09012307)
314011.45	3996061.55	0.31237	(08022918)	314031.45	3996061.55	0.28809	(08022918)
314051.45	3996061.55	0.26827	(08022918)	314071.45	3996061.55	0.25175	(08022918)
314091.45	3996061.55	0.23775	(08022918)	314111.45	3996061.55	0.22565	(08022918)
314131.45	3996061.55	0.21504	(08022918)	314151.45	3996061.55	0.20562	(08022918)
314171.45	3996061.55	0.19716	(08022918)	314191.45	3996061.55	0.18950	(08022918)
314211.45	3996061.55	0.18251	(08022918)	314231.45	3996061.55	0.17608	(08022918)
314251.45	3996061.55	0.17012	(08022918)	314271.45	3996061.55	0.16458	(08022918)
313991.45	3996081.55	0.35000	(08012621)	314011.45	3996081.55	0.31701	(08010217)
314031.45	3996081.55	0.29246	(07120517)	314051.45	3996081.55	0.27257	(09012307)
314071.45	3996081.55	0.25584	(09012307)	314091.45	3996081.55	0.24154	(09012307)
314111.45	3996081.55	0.22914	(09012307)	314131.45	3996081.55	0.21827	(09012307)
314151.45	3996081.55	0.20863	(09012307)	314171.45	3996081.55	0.20002	(09012307)
314191.45	3996081.55	0.19225	(09012307)	314211.45	3996081.55	0.18521	(09012307)
314231.45	3996081.55	0.17879	(09012307)	314251.45	3996081.55	0.17290	(09012307)
314271.45	3996081.55	0.16747	(09012307)	313991.45	3996101.55	0.36530	(08022018)

314011.45 3996101.55 0.32397 (08012621) 314031.45
3996101.55 0.29585 (08010217)
314051.45 3996101.55 0.27516 (08010217) 314071.45
3996101.55 0.25805 (09011417)
314091.45 3996101.55 0.24363 (06010518) 314111.45
3996101.55 0.23127 (06010518)
314131.45 3996101.55 0.22035 (06010518) 314151.45
3996101.55 0.21062 (07120517)
314171.45 3996101.55 0.20197 (09012307) 314191.45
3996101.55 0.19417 (09012307)
314211.45 3996101.55 0.18706 (09012307) 314231.45
3996101.55 0.18055 (09012307)
314251.45 3996101.55 0.17455 (09012307) 314271.45
3996101.55 0.16900 (09012307)
313991.45 3996121.55 0.37652 (07121617) 314011.45
3996121.55 0.33450 (08022018)
314031.45 3996121.55 0.30248 (06010418) 314051.45
3996121.55 0.27831 (08012621)
314071.45 3996121.55 0.26062 (08010217) 314091.45
3996121.55 0.24600 (08010217)
314111.45 3996121.55 0.23319 (09011417) 314131.45
3996121.55 0.22226 (09011417)
314151.45 3996121.55 0.21243 (09011417) 314171.45
3996121.55 0.20354 (09011417)
314191.45 3996121.55 0.19550 (06010518) 314211.45
3996121.55 0.18838 (06010518)
314231.45 3996121.55 0.18183 (06010518) 314251.45
3996121.55 0.17579 (06010518)
314271.45 3996121.55 0.17021 (06010518) 313991.45
3996141.55 0.38520 (09012404)
314011.45 3996141.55 0.34254 (07121617) 314031.45
3996141.55 0.31013 (08022018)
314051.45 3996141.55 0.28475 (06010418) 314071.45
3996141.55 0.26423 (08012621)
314091.45 3996141.55 0.24781 (07022619) 314111.45
3996141.55 0.23507 (08010217)
314131.45 3996141.55 0.22405 (08010217) 314151.45
3996141.55 0.21410 (08010217)
314171.45 3996141.55 0.20506 (09011417) 314191.45
3996141.55 0.19722 (09011417)
314211.45 3996141.55 0.19003 (09011417) 314231.45
3996141.55 0.18340 (09011417)
314251.45 3996141.55 0.17725 (09011417) 314271.45
3996141.55 0.17156 (09011417)
313991.45 3996161.55 0.38982 (09012404) 314011.45
3996161.55 0.34897 (09012404)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
314031.45	3996161.55	0.31623	(07121617)	314051.45	3996161.55	0.29036	(08022018)
314071.45	3996161.55	0.26956	(06010418)	314091.45	3996161.55	0.25158	(08012621)
314111.45	3996161.55	0.23745	(08012621)	314131.45	3996161.55	0.22532	(07022619)
314151.45	3996161.55	0.21532	(08010217)	314171.45	3996161.55	0.20662	(08010217)
314191.45	3996161.55	0.19865	(08010217)	314211.45	3996161.55	0.19131	(08010217)
314231.45	3996161.55	0.18450	(08010217)	314251.45	3996161.55	0.17818	(08010217)
314271.45	3996161.55	0.17246	(09011417)	313991.45	3996181.55	0.39438	(08120520)
314011.45	3996181.55	0.35358	(09012404)	314031.45	3996181.55	0.32102	(09012404)
314051.45	3996181.55	0.29517	(07121617)	314071.45	3996181.55	0.27389	(08022018)
314091.45	3996181.55	0.25638	(06010418)	314111.45	3996181.55	0.24075	(06010418)
314131.45	3996181.55	0.22820	(08012621)	314151.45	3996181.55	0.21704	(08012621)
314171.45	3996181.55	0.20763	(07022619)	314191.45	3996181.55	0.19946	(08120204)
314211.45	3996181.55	0.19215	(08010217)	314231.45	3996181.55	0.18559	(08010217)
314251.45	3996181.55	0.17948	(08010217)	314271.45	3996181.55	0.17378	(08010217)
313991.45	3996201.55	0.39784	(08120520)	314011.45	3996201.55	0.35620	(09012404)
314031.45	3996201.55	0.32555	(09012404)	314051.45	3996201.55	0.29886	(07121617)

314071.45 3996201.55 0.27781 (07121617) 314091.45
3996201.55 0.25987 (08022018)
314111.45 3996201.55 0.24481 (06010418) 314131.45
3996201.55 0.23134 (06010418)
314151.45 3996201.55 0.21964 (08012621) 314171.45
3996201.55 0.20990 (08012621)
314191.45 3996201.55 0.20082 (06121422) 314211.45
3996201.55 0.19318 (06010820)
314231.45 3996201.55 0.18639 (08120204) 314251.45
3996201.55 0.18011 (08120204)
314271.45 3996201.55 0.17422 (08120204) 313991.45
3996221.55 0.40273 (09121905)
314011.45 3996221.55 0.35985 (08120520) 314031.45
3996221.55 0.32824 (09012404)
314051.45 3996221.55 0.30312 (09012404) 314071.45
3996221.55 0.28112 (07121617)
314091.45 3996221.55 0.26312 (07121617) 314111.45
3996221.55 0.24771 (08022018)
314131.45 3996221.55 0.23453 (06010418) 314151.45
3996221.55 0.22276 (06010418)
314171.45 3996221.55 0.21184 (06010617) 314191.45
3996221.55 0.20315 (08012621)
314211.45 3996221.55 0.19507 (08012621) 314231.45
3996221.55 0.18757 (06121422)
314251.45 3996221.55 0.18106 (06010820) 314271.45
3996221.55 0.17520 (06010820)
313991.45 3996241.55 0.40676 (06010817) 314011.45
3996241.55 0.36252 (08120520)
314031.45 3996241.55 0.33059 (08120520) 314051.45
3996241.55 0.30584 (09012404)
314071.45 3996241.55 0.28460 (09012404) 314091.45
3996241.55 0.26614 (07121617)
314111.45 3996241.55 0.25046 (07121617) 314131.45
3996241.55 0.23701 (08022018)
314151.45 3996241.55 0.22533 (08022018) 314171.45
3996241.55 0.21493 (06010418)
314191.45 3996241.55 0.20506 (06010418) 314211.45
3996241.55 0.19677 (08012621)
314231.45 3996241.55 0.18954 (08012621) 314251.45
3996241.55 0.18270 (08012621)
314271.45 3996241.55 0.17632 (06121422) 313991.45
3996261.55 0.41151 (09012308)
314011.45 3996261.55 0.36646 (09121905) 314031.45
3996261.55 0.33335 (08120520)
314051.45 3996261.55 0.30755 (09012404) 314071.45
3996261.55 0.28732 (09012404)
314091.45 3996261.55 0.26894 (09012404) 314111.45
3996261.55 0.25320 (07121617)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
314131.45	3996261.55	0.23938	(07121617)	314151.45	3996261.55	0.22749	(08022018)
314171.45	3996261.55	0.21711	(08022018)	314191.45	3996261.55	0.20774	(06010418)
314211.45	3996261.55	0.19891	(06010418)	314231.45	3996261.55	0.19082	(06010617)
314251.45	3996261.55	0.18420	(08012621)	314271.45	3996261.55	0.17803	(08012621)
313991.45	3996281.55	0.41309	(09012308)	314011.45	3996281.55	0.36932	(06010817)
314031.45	3996281.55	0.33545	(09121905)	314051.45	3996281.55	0.31005	(09121717)
314071.45	3996281.55	0.28903	(09012404)	314091.45	3996281.55	0.27161	(09012404)
314111.45	3996281.55	0.25542	(09012404)	314131.45	3996281.55	0.24187	(07121617)
314151.45	3996281.55	0.22956	(07121617)	314171.45	3996281.55	0.21892	(08022018)
314191.45	3996281.55	0.20962	(08022018)	314211.45	3996281.55	0.20109	(06010418)
314231.45	3996281.55	0.19314	(06010418)	314251.45	3996281.55	0.18551	(06010418)
314271.45	3996281.55	0.17894	(08012621)	313811.45	3996301.55	0.41083	(09012406)
313831.45	3996301.55	0.41256	(09020419)	313851.45	3996301.55	0.41381	(09020419)
313871.45	3996301.55	0.41425	(07121918)	313891.45	3996301.55	0.41592	(08120121)
313911.45	3996301.55	0.41723	(08022420)	313931.45	3996301.55	0.41952	(08022420)

313951.45 3996301.55 0.42043 (07122007) 313971.45
3996301.55 0.42031 (08010504)
313991.45 3996301.55 0.40099 (07022620) 314011.45
3996301.55 0.36935 (09012308)
314031.45 3996301.55 0.33761 (09121905) 314051.45
3996301.55 0.31140 (09121717)
314071.45 3996301.55 0.29055 (09121717) 314091.45
3996301.55 0.27318 (09012404)
314111.45 3996301.55 0.25799 (09012404) 314131.45
3996301.55 0.24358 (09012404)
314151.45 3996301.55 0.23180 (07121617) 314171.45
3996301.55 0.22075 (07121617)
314191.45 3996301.55 0.21106 (08022018) 314211.45
3996301.55 0.20272 (08022018)
314231.45 3996301.55 0.19487 (06010418) 314251.45
3996301.55 0.18769 (06010418)
314271.45 3996301.55 0.18077 (06010418) 313811.45
3996321.55 0.38315 (09022305)
313831.45 3996321.55 0.38411 (09020419) 313851.45
3996321.55 0.38575 (09020419)
313871.45 3996321.55 0.38635 (09020419) 313891.45
3996321.55 0.38696 (07121918)
313911.45 3996321.55 0.38802 (08120121) 313931.45
3996321.55 0.38950 (08022420)
313951.45 3996321.55 0.39027 (08022420) 313971.45
3996321.55 0.38997 (08010504)
313991.45 3996321.55 0.37939 (08010504) 314011.45
3996321.55 0.36057 (07022620)
314031.45 3996321.55 0.33651 (09012308) 314051.45
3996321.55 0.31220 (09121905)
314071.45 3996321.55 0.29138 (09121717) 314091.45
3996321.55 0.27384 (09121717)
314111.45 3996321.55 0.25927 (09012404) 314131.45
3996321.55 0.24597 (09012404)
314151.45 3996321.55 0.23306 (09012404) 314171.45
3996321.55 0.22268 (07121617)
314191.45 3996321.55 0.21276 (07121617) 314211.45
3996321.55 0.20374 (08022018)
314231.45 3996321.55 0.19626 (08022018) 314251.45
3996321.55 0.18900 (08022018)
314271.45 3996321.55 0.18250 (06010418) 313811.45
3996341.55 0.36024 (09022305)
313831.45 3996341.55 0.36116 (09012406) 313851.45
3996341.55 0.36246 (09020419)
313871.45 3996341.55 0.36334 (09020419) 313891.45
3996341.55 0.36330 (09020419)
313911.45 3996341.55 0.36427 (08120121) 313931.45
3996341.55 0.36451 (08022420)
313951.45 3996341.55 0.36610 (08022420) 313971.45
3996341.55 0.36406 (07122007)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
313991.45	3996341.55	0.36105	(08010504)	314011.45	3996341.55	0.34838	(07022620)
314031.45	3996341.55	0.33043	(09012308)	314051.45	3996341.55	0.31052	(06010817)
314071.45	3996341.55	0.29111	(09121905)	314091.45	3996341.55	0.27422	(09121717)
314111.45	3996341.55	0.25922	(09121717)	314131.45	3996341.55	0.24683	(09012404)
314151.45	3996341.55	0.23516	(09012404)	314171.45	3996341.55	0.22358	(09012404)
314191.45	3996341.55	0.21433	(07121617)	314211.45	3996341.55	0.20540	(07121617)
314231.45	3996341.55	0.19678	(08022018)	314251.45	3996341.55	0.19013	(08022018)
314271.45	3996341.55	0.18361	(08022018)	313811.45	3996361.55	0.34090	(09022305)
313831.45	3996361.55	0.34193	(09022305)	313851.45	3996361.55	0.34269	(09020419)
313871.45	3996361.55	0.34389	(09020419)	313891.45	3996361.55	0.34412	(09020419)
313911.45	3996361.55	0.34443	(07121918)	313931.45	3996361.55	0.34485	(08120121)
313951.45	3996361.55	0.34548	(08022420)	313971.45	3996361.55	0.34418	(07122007)
313991.45	3996361.55	0.34201	(08010504)	314011.45	3996361.55	0.33313	(08010504)
314031.45	3996361.55	0.32192	(07022620)	314051.45	3996361.55	0.30656	(09012308)

314071.45 3996361.55 0.28928 (06010817) 314091.45
3996361.55 0.27316 (09121905)
314111.45 3996361.55 0.25928 (09121717) 314131.45
3996361.55 0.24626 (09121717)
314151.45 3996361.55 0.23561 (09012404) 314171.45
3996361.55 0.22536 (09012404)
314191.45 3996361.55 0.21496 (09012404) 314211.45
3996361.55 0.20657 (07121617)
314231.45 3996361.55 0.19857 (07121617) 314251.45
3996361.55 0.19056 (07121617)
314271.45 3996361.55 0.18422 (08022018) 313731.45
3996381.55 0.32459 (09121317)
313751.45 3996381.55 0.32440 (09021718) 313771.45
3996381.55 0.32424 (09021718)
313791.45 3996381.55 0.32342 (09021718) 313811.45
3996381.55 0.32413 (09022305)
313831.45 3996381.55 0.32546 (09022305) 313851.45
3996381.55 0.32610 (09012406)
313871.45 3996381.55 0.32713 (09020419) 313891.45
3996381.55 0.32759 (09020419)
313911.45 3996381.55 0.32731 (07121918) 313931.45
3996381.55 0.32787 (08120121)
313951.45 3996381.55 0.32748 (08022420) 313971.45
3996381.55 0.32723 (08022420)
313991.45 3996381.55 0.32364 (08010504) 314011.45
3996381.55 0.32065 (08010504)
314031.45 3996381.55 0.31081 (07022620) 314051.45
3996381.55 0.29910 (07022620)
314071.45 3996381.55 0.28640 (09012308) 314091.45
3996381.55 0.27139 (09121905)
314111.45 3996381.55 0.25756 (09121905) 314131.45
3996381.55 0.24610 (09121717)
314151.45 3996381.55 0.23467 (09121717) 314171.45
3996381.55 0.22537 (09012404)
314191.45 3996381.55 0.21638 (09012404) 314211.45
3996381.55 0.20702 (09012404)
314231.45 3996381.55 0.19929 (07121617) 314251.45
3996381.55 0.19215 (07121617)
314271.45 3996381.55 0.18491 (07121617) 313731.45
3996401.55 0.31015 (09021718)
313751.45 3996401.55 0.31040 (09021718) 313771.45
3996401.55 0.31014 (09021718)
313791.45 3996401.55 0.30912 (09021718) 313811.45
3996401.55 0.30962 (07121804)
313831.45 3996401.55 0.31096 (09022305) 313851.45
3996401.55 0.31165 (09012406)
313871.45 3996401.55 0.31232 (09020419) 313891.45
3996401.55 0.31311 (09020419)
313911.45 3996401.55 0.31263 (09020419) 313931.45
3996401.55 0.31298 (07121918)

313951.45   3996401.55   0.31237 (08120121)   313971.45
3996401.55   0.31235 (08022420)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
313991.45	3996401.55	0.30950	(07122007)	314011.45	3996401.55	0.30701	(08010504)
314031.45	3996401.55	0.29985	(08010504)	314051.45	3996401.55	0.29181	(07022620)
314071.45	3996401.55	0.28030	(09012308)	314091.45	3996401.55	0.26897	(09012308)
314111.45	3996401.55	0.25632	(09121905)	314131.45	3996401.55	0.24383	(09121905)
314151.45	3996401.55	0.23435	(09121717)	314171.45	3996401.55	0.22420	(09121717)
314191.45	3996401.55	0.21600	(09012404)	314211.45	3996401.55	0.20810	(09012404)
314231.45	3996401.55	0.19969	(09012404)	314251.45	3996401.55	0.19240	(07121617)
314271.45	3996401.55	0.18609	(07121617)	313731.45	3996421.55	0.29772	(09021718)
313751.45	3996421.55	0.29796	(09021718)	313771.45	3996421.55	0.29765	(09021718)
313791.45	3996421.55	0.29659	(08010603)	313811.45	3996421.55	0.29712	(07121804)
313831.45	3996421.55	0.29808	(09022305)	313851.45	3996421.55	0.29894	(09022305)
313871.45	3996421.55	0.29926	(09012406)	313891.45	3996421.55	0.30018	(09020419)
313911.45	3996421.55	0.30002	(09020419)	313931.45	3996421.55	0.29982	(07121918)

313951.45 3996421.55 0.29951 (08120121) 313971.45
3996421.55 0.29870 (08022420)
313991.45 3996421.55 0.29648 (07122007) 314011.45
3996421.55 0.29309 (08010504)
314031.45 3996421.55 0.29037 (08010504) 314051.45
3996421.55 0.28182 (07022620)
314071.45 3996421.55 0.27455 (07022620) 314091.45
3996421.55 0.26470 (09012308)
314111.45 3996421.55 0.25387 (06010817) 314131.45
3996421.55 0.24306 (09121905)
314151.45 3996421.55 0.23160 (09121905) 314171.45
3996421.55 0.22382 (09121717)
314191.45 3996421.55 0.21471 (09121717) 314211.45
3996421.55 0.20737 (09012404)
314231.45 3996421.55 0.20044 (09012404) 314251.45
3996421.55 0.19287 (09012404)
314271.45 3996421.55 0.18587 (07121617) 313751.45
3996441.55 0.28685 (09021718)
313771.45 3996441.55 0.28642 (09021718) 313791.45
3996441.55 0.28540 (08011305)
313811.45 3996441.55 0.28592 (07121804) 313831.45
3996441.55 0.28642 (09022305)
313851.45 3996441.55 0.28753 (09022305) 313871.45
3996441.55 0.28790 (09012406)
313891.45 3996441.55 0.28852 (09020419) 313911.45
3996441.55 0.28864 (09020419)
313931.45 3996441.55 0.28785 (07121918) 313951.45
3996441.55 0.28782 (08120121)
313971.45 3996441.55 0.28607 (07122018) 313991.45
3996441.55 0.28548 (08022420)
314011.45 3996441.55 0.28198 (07122007) 314031.45
3996441.55 0.27979 (08010504)
314051.45 3996441.55 0.27400 (08010504) 314071.45
3996441.55 0.26737 (07022620)
314091.45 3996441.55 0.25884 (07022620) 314111.45
3996441.55 0.25076 (09012308)
314131.45 3996441.55 0.24067 (06010817) 314151.45
3996441.55 0.23124 (09121905)
314171.45 3996441.55 0.22102 (09121717) 314191.45
3996441.55 0.21426 (09121717)
314211.45 3996441.55 0.20605 (09121717) 314231.45
3996441.55 0.19940 (09012404)
314251.45 3996441.55 0.19330 (09012404) 314271.45
3996441.55 0.18651 (09012404)
313751.45 3996461.55 0.27679 (09021718) 313771.45
3996461.55 0.27630 (09021718)
313791.45 3996461.55 0.27537 (08011305) 313811.45
3996461.55 0.27574 (07121804)
313831.45 3996461.55 0.27595 (07121804) 313851.45
3996461.55 0.27715 (09022305)

313871.45 3996461.55 0.27758 (09012406) 313891.45
3996461.55 0.27787 (09020419)
313911.45 3996461.55 0.27832 (09020419) 313931.45
3996461.55 0.27699 (09020419)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_2.5 IN MICROGRAMS/M**3
**

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH) X-COORD (M)
Y-COORD (M) CONC (YYMMDDHH)
- -
- -
313951.45 3996461.55 0.27720 (07121918) 313971.45
3996461.55 0.27566 (08120121)
313991.45 3996461.55 0.27497 (08022420) 314011.45
3996461.55 0.27212 (07122007)
314031.45 3996461.55 0.26865 (08010504) 314051.45
3996461.55 0.26636 (08010504)
314071.45 3996461.55 0.25826 (07022620) 314091.45
3996461.55 0.25387 (07022620)
314111.45 3996461.55 0.24527 (09012308) 314131.45
3996461.55 0.23816 (09012308)
314151.45 3996461.55 0.22880 (06010817) 314171.45
3996461.55 0.22058 (09121905)
314191.45 3996461.55 0.21162 (09121717) 314211.45
3996461.55 0.20557 (09121717)
314231.45 3996461.55 0.19811 (09121717) 314251.45
3996461.55 0.19200 (09012404)
314271.45 3996461.55 0.18664 (09012404) 313751.45
3996481.55 0.26760 (09021718)
313771.45 3996481.55 0.26703 (09021718) 313791.45
3996481.55 0.26620 (08011305)
313811.45 3996481.55 0.26643 (07121804) 313831.45
3996481.55 0.26676 (07121804)
313851.45 3996481.55 0.26762 (09022305) 313871.45
3996481.55 0.26813 (09022305)

313891.45   3996481.55   0.26806 (09012406)   313911.45
3996481.55   0.26880 (09020419)
313931.45   3996481.55   0.26786 (09020419)   313951.45
3996481.55   0.26753 (07121918)
313971.45   3996481.55   0.26648 (08120121)   313991.45
3996481.55   0.26486 (08022420)
314011.45   3996481.55   0.26294 (08022420)   314031.45
3996481.55   0.25941 (07122007)
314051.45   3996481.55   0.25770 (08010504)   314071.45
3996481.55   0.25301 (08010504)
314091.45   3996481.55   0.24692 (07022620)   314111.45
3996481.55   0.24124 (07022620)
314131.45   3996481.55   0.23403 (09012308)   314151.45
3996481.55   0.22671 (09012308)
314171.45   3996481.55   0.21835 (09121905)   314191.45
3996481.55   0.21089 (09121905)
314211.45   3996481.55   0.20306 (09121717)   314231.45
3996481.55   0.19761 (09121717)
314251.45   3996481.55   0.19079 (09121717)   314271.45
3996481.55   0.18511 (09012404)
313771.45   3996501.55   0.25852 (09021718)   313791.45
3996501.55   0.25776 (08011305)
313811.45   3996501.55   0.25784 (07121804)   313831.45
3996501.55   0.25832 (07121804)
313851.45   3996501.55   0.25880 (09022305)   313871.45
3996501.55   0.25953 (09022305)
313891.45   3996501.55   0.25954 (09012406)   313911.45
3996501.55   0.25998 (09020419)
313931.45   3996501.55   0.25942 (09020419)   313951.45
3996501.55   0.25849 (07121918)
313971.45   3996501.55   0.25781 (08120121)   313991.45
3996501.55   0.25567 (07122018)
314011.45   3996501.55   0.25476 (08022420)   314031.45
3996501.55   0.25175 (07122007)
314051.45   3996501.55   0.24840 (08010504)   314071.45
3996501.55   0.24659 (08010504)
314091.45   3996501.55   0.23987 (08010504)   314111.45
3996501.55   0.23607 (07022620)
314131.45   3996501.55   0.22942 (07022620)   314151.45
3996501.55   0.22367 (09012308)
314171.45   3996501.55   0.21646 (06010817)   314191.45
3996501.55   0.20918 (09121905)
314211.45   3996501.55   0.20206 (09121905)   314231.45
3996501.55   0.19524 (09121717)
314251.45   3996501.55   0.19028 (09121717)   314271.45
3996501.55   0.18401 (09121717)
313771.45   3996521.55   0.25064 (09021718)   313791.45
3996521.55   0.24995 (08011305)
313811.45   3996521.55   0.24994 (08010603)   313831.45
3996521.55   0.25049 (07121804)

313851.45 3996521.55 0.25057 (09022305) 313871.45 3996521.55 0.25155 (09022305)
313891.45 3996521.55 0.25161 (09012406) 313911.45 3996521.55 0.25174 (09020419)
313931.45 3996521.55 0.25155 (09020419) 313951.45 3996521.55 0.24992 (07121918)

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
313971.45	3996521.55	0.24967	(07121918)	313991.45	3996521.55	0.24761	(08120121)
314011.45	3996521.55	0.24664	(08022420)	314031.45	3996521.55	0.24384	(07122007)
314051.45	3996521.55	0.24047	(07122007)	314071.45	3996521.55	0.23923	(08010504)
314091.45	3996521.55	0.23545	(08010504)	314111.45	3996521.55	0.22938	(07022620)
314131.45	3996521.55	0.22575	(07022620)	314151.45	3996521.55	0.21873	(09012308)
314171.45	3996521.55	0.21408	(09012308)	314191.45	3996521.55	0.20724	(06010817)
314211.45	3996521.55	0.20077	(09121905)	314231.45	3996521.55	0.19393	(09121905)
314251.45	3996521.55	0.18804	(09121717)	314271.45	3996521.55	0.18351	(09121717)
313791.45	3996541.55	0.24268	(08011305)	313811.45	3996541.55	0.24271	(08011305)
313831.45	3996541.55	0.24321	(07121804)	313851.45	3996541.55	0.24294	(08120305)
313871.45	3996541.55	0.24408	(09022305)	313891.45	3996541.55	0.24420	(09012406)

313911.45 3996541.55 0.24397 (09020419) 313931.45
3996541.55 0.24418 (09020419)
313951.45 3996541.55 0.24217 (09020419) 313971.45
3996541.55 0.24223 (07121918)
313991.45 3996541.55 0.24069 (08120121) 314011.45
3996541.55 0.23859 (08022420)
314031.45 3996541.55 0.23729 (08022420) 314051.45
3996541.55 0.23438 (07122007)
314071.45 3996541.55 0.23122 (08010504) 314091.45
3996541.55 0.22987 (08010504)
314111.45 3996541.55 0.22436 (08010504) 314131.45
3996541.55 0.22052 (07022620)
314151.45 3996541.55 0.21591 (07022620) 314171.45
3996541.55 0.21018 (09012308)
314191.45 3996541.55 0.20516 (09012308) 314211.45
3996541.55 0.19871 (06010817)
314231.45 3996541.55 0.19300 (09121905) 314251.45
3996541.55 0.18642 (09121905)
314271.45 3996541.55 0.18139 (09121717) 313791.45
3996561.55 0.23588 (08011305)
313811.45 3996561.55 0.23599 (08011305) 313831.45
3996561.55 0.23639 (07121804)
313851.45 3996561.55 0.23613 (07121804) 313871.45
3996561.55 0.23706 (09022305)
313891.45 3996561.55 0.23725 (09012406) 313911.45
3996561.55 0.23667 (09012406)
313931.45 3996561.55 0.23722 (09020419) 313951.45
3996561.55 0.23573 (09020419)
313971.45 3996561.55 0.23509 (07121918) 313991.45
3996561.55 0.23398 (08120121)
314011.45 3996561.55 0.23173 (07122018) 314031.45
3996561.55 0.23070 (08022420)
314051.45 3996561.55 0.22788 (07122007) 314071.45
3996561.55 0.22428 (07122007)
314091.45 3996561.55 0.22344 (08010504) 314111.45
3996561.55 0.22039 (08010504)
314131.45 3996561.55 0.21445 (09121007) 314151.45
3996561.55 0.21196 (07022620)
314171.45 3996561.55 0.20656 (07022620) 314191.45
3996561.55 0.20213 (09012308)
314211.45 3996561.55 0.19685 (09012308) 314231.45
3996561.55 0.19079 (06010817)
314251.45 3996561.55 0.18582 (09121905) 314271.45
3996561.55 0.17947 (09121905)
313791.45 3996581.55 0.22948 (08011305) 313811.45
3996581.55 0.22970 (08011305)
313831.45 3996581.55 0.22998 (07121804) 313851.45
3996581.55 0.22985 (07121804)
313871.45 3996581.55 0.23042 (09022305) 313891.45
3996581.55 0.23079 (09022305)

```
        313911.45   3996581.55        0.23038  (09012406)                313931.45
3996581.55        0.23062  (09020419)
        313951.45   3996581.55        0.22959  (09020419)                313971.45
3996581.55        0.22819  (07121918)
        313991.45   3996581.55        0.22745  (07121918)                314011.45
3996581.55        0.22519  (08120121)
        314031.45   3996581.55        0.22400  (08022420)                314051.45
3996581.55        0.22196  (08022420)
```



```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA1      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        314071.45   3996581.55        0.21933  (07122007)                314091.45
3996581.55        0.21639  (08010504)
        314111.45   3996581.55        0.21544  (08010504)                314131.45
3996581.55        0.21089  (08010504)
        314151.45   3996581.55        0.20675  (07022620)                314171.45
3996581.55        0.20370  (07022620)
        314191.45   3996581.55        0.19792  (08010919)                314211.45
3996581.55        0.19455  (09012308)
        314231.45   3996581.55        0.18928  (06010817)                314251.45
3996581.55        0.18369  (09121905)
        314271.45   3996581.55        0.17913  (09121905)                313529.06
3996060.33        0.34140  (07020819)
        313510.22   3996059.07        0.31370  (07020819)                313491.38
3996062.84        0.29109  (07020819)
```

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER   4 YEARS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

GROUP ID		NETWORK AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE GRID-ID
ALL	1ST HIGHEST VALUE IS	0.07800	AT (313531.45, 3996041.55, 125.79, 125.79, 0.00) DC
	2ND HIGHEST VALUE IS	0.07731	AT (313531.45, 3996021.55, 125.79, 125.79, 0.00) DC
	3RD HIGHEST VALUE IS	0.07721	AT (313529.06, 3996060.33, 125.78, 125.78, 0.00) DC
	4TH HIGHEST VALUE IS	0.07650	AT (313531.45, 3996001.55, 125.79, 125.79, 0.00) DC
	5TH HIGHEST VALUE IS	0.07556	AT (313531.45, 3995981.55, 125.78, 125.78, 0.00) DC
	6TH HIGHEST VALUE IS	0.07445	AT (313531.45, 3995961.55, 125.76, 125.76, 0.00) DC
	7TH HIGHEST VALUE IS	0.07316	AT (313531.45, 3995941.55, 125.73, 125.73, 0.00) DC
	8TH HIGHEST VALUE IS	0.07174	AT (313531.45, 3995921.55, 125.73, 125.73, 0.00) DC
	9TH HIGHEST VALUE IS	0.07010	AT (313531.45, 3995901.55, 125.73, 125.73, 0.00) DC
	10TH HIGHEST VALUE IS	0.06822	AT (313531.45, 3995881.55, 125.73, 125.73, 0.00) DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

```
                                                  *** THE SUMMARY OF HIGHEST  1-HR
RESULTS ***

                                    ** CONC OF PM_2.5   IN MICROGRAMS/M**3
               **

                                                            DATE
                                               NETWORK
GROUP ID                          AVERAGE CONC     (YYMMDDHH)            RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

ALL      HIGH   1ST HIGH VALUE IS       0.47909  ON 07121805: AT (  313571.45,
3995641.55,   125.90,   125.90,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\LombardiPorterville\LombardiPorterville.isc     ***        07/23/21
 *** AERMET - VERSION  18081 ***   ***
                       ***       09:19:05

                                  PAGE  81
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of         7410 Informational Message(s)

 A Total of        35088 Hours Were Processed

 A Total of         6527 Calm Hours Identified

 A Total of          883 Missing Hours Identified (  2.52 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
```

```
ME W187      70       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

MX W481   35089         MAIN: Data Remaining After End of Year. Number of Hours=
      24

   ************************************
   *** AERMOD Finishes Successfully ***
   ************************************
```

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 7/23/2021
** File: C:\Lakes\AERMOD
View\LombardiPortervilleMitigated\LombardiPortervilleMitigated.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\LombardiPortervilleMitigated\LombardiPortervill
   MODELOPT DFAULT CONC
   AVERTIME 1 ANNUAL
   URBANOPT 59988 Porterville,_CA
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL LombardiPortervilleMitigated.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION PAREA1       AREAPOLY   313577.994  3996166.184      125.800
** Source Parameters **
   SRCPARAM PAREA1       2.0203E-09     3.000        13
   AREAVERT PAREA1       313577.994 3996166.184 313563.335 3995657.628
   AREAVERT PAREA1       313703.160 3995653.117 313704.288 3995698.222
   AREAVERT PAREA1       313804.646 3995697.095 313802.390 3995655.373
   AREAVERT PAREA1       313954.619 3995648.607 313955.747 3995897.811
   AREAVERT PAREA1       313909.514 3995897.811 313911.769 3996035.380
   AREAVERT PAREA1       313956.874 3996036.508 313961.385 3996256.394
   AREAVERT PAREA1       313661.438 3996256.394
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
```

```
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED LombardiPortervilleMitigated.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE "C:\Users\kheck\Desktop\Porterville Met Data\Porterville_2006-2009.SFC"
   PROFFILE "C:\Users\kheck\Desktop\Porterville Met Data\Porterville_2006-2009.PFL"
   SURFDATA 23149 2006 Porterville
   UAIRDATA 23230 2006 OAKLAND/WSO_AP
   PROFBASE 135.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST LOMBARDIPORTERVILLEMITIGATED.AD\01H1GALL.PLT 31
   PLOTFILE ANNUAL ALL LOMBARDIPORTERVILLEMITIGATED.AD\AN00GALL.PLT 32
   SUMMFILE LombardiPortervilleMitigated.sum
OU FINISHED
**
****************************************
** Project Parameters
****************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     11
** ZONEINX  0
**
```

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 7/23/2021
** File: C:\Lakes\AERMOD
View\LombardiPortervilleMitigated\LombardiPortervilleMitigated.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\LombardiPortervilleMitigated\LombardiPortervill
   MODELOPT DFAULT CONC
   AVERTIME 1 ANNUAL
   URBANOPT 59988 Porterville,_CA
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL LombardiPortervilleMitigated.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION PAREA1       AREAPOLY   313577.994  3996166.184      125.800
** Source Parameters **
   SRCPARAM PAREA1       2.0203E-09     3.000        13
   AREAVERT PAREA1       313577.994 3996166.184 313563.335 3995657.628
   AREAVERT PAREA1       313703.160 3995653.117 313704.288 3995698.222
   AREAVERT PAREA1       313804.646 3995697.095 313802.390 3995655.373
   AREAVERT PAREA1       313954.619 3995648.607 313955.747 3995897.811
   AREAVERT PAREA1       313909.514 3995897.811 313911.769 3996035.380
   AREAVERT PAREA1       313956.874 3996036.508 313961.385 3996256.394
   AREAVERT PAREA1       313661.438 3996256.394
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
```

```
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED LombardiPortervilleMitigated.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE "C:\Users\kheck\Desktop\Porterville Met Data\Porterville_2006-2009.SFC"
   PROFFILE "C:\Users\kheck\Desktop\Porterville Met Data\Porterville_2006-2009.PFL"
   SURFDATA 23149 2006 Porterville
   UAIRDATA 23230 2006 OAKLAND/WSO_AP
   PROFBASE 135.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST LOMBARDIPORTERVILLEMITIGATED.AD\01H1GALL.PLT 31
   PLOTFILE ANNUAL ALL LOMBARDIPORTERVILLEMITIGATED.AD\AN00GALL.PLT 32
   SUMMFILE LombardiPortervilleMitigated.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***
```

```
    ********   WARNING MESSAGES   ********
 ME W187      70       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\LombardiPortervilleMitigated\LombardiPortervill ***        07/23/21
 *** AERMET - VERSION  18081 ***   ***
                       ***        10:19:35

                                  PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                            ***     MODEL SETUP OPTIONS SUMMARY
 ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for     1 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =     59988.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         ADJ_U*   - Use ADJ_U* option for SBL in AERMET
         CCVR_Sub - Meteorological data includes CCVR substitutions
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_2.5
```

```
 **Model Calculates  1 Short Term Average(s) of:   1-HR
     and Calculates ANNUAL Averages

 **This Run Includes:      1 Source(s);       1 Source Group(s); and    1934
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 VOLUME source(s)
                 and:      1 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with a total of     0 line(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  18081

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and
Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   135.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.7 MB of RAM.

 **Input Runstream File:          aermod.inp

 **Output Print File:             aermod.out


 **Detailed Error/Message File:   LombardiPortervilleMitigated.err

 **File for Summary of Results:   LombardiPortervilleMitigated.sum
```

```
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\LombardiPortervilleMitigated\LombardiPortervill ***       07/23/21
 *** AERMET - VERSION  18081 ***   ***
                       ***        10:19:35

                                  PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                                *** AREAPOLY SOURCE DATA ***

               NUMBER EMISSION RATE   LOCATION OF AREA  BASE     RELEASE  NUMBER
 INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X        Y      ELEV.    HEIGHT  OF VERTS.
  SZ     SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 PAREA1           0   0.20203E-08  313578.0 3996166.2   125.8     3.00      13
  0.00     YES
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\LombardiPortervilleMitigated\LombardiPortervill ***       07/23/21
 *** AERMET - VERSION  18081 ***   ***
                       ***        10:19:35

                                  PAGE   3
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                             *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
 -----------                                             ----------


  ALL        PAREA1      ,
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\LombardiPortervilleMitigated\LombardiPortervill ***       07/23/21
 *** AERMET - VERSION  18081 ***   ***
                       ***        10:19:35

                                  PAGE   4
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                            *** SOURCE IDs DEFINED AS URBAN SOURCES
***
```

```
  URBAN ID   URBAN POP                                        SOURCE IDs
  --------   ---------                                        ----------


                59988.   PAREA1      ,
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\LombardiPortervilleMitigated\LombardiPortervill ***        07/23/21
 *** AERMET - VERSION  18081 ***   ***
                          ***        10:19:35

                                     PAGE   5
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                             *** DISCRETE CARTESIAN RECEPTORS ***
                                           (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                           (METERS)

     ( 313271.5, 3995341.5,     126.0,     126.0,       0.0);         ( 313291.5,
3995341.5,     126.0,     126.0,       0.0);
     ( 313311.5, 3995341.5,     126.1,     126.1,       0.0);         ( 313331.5,
3995341.5,     126.1,     126.1,       0.0);
     ( 313351.5, 3995341.5,     126.1,     126.1,       0.0);         ( 313371.5,
3995341.5,     126.1,     126.1,       0.0);
     ( 313391.5, 3995341.5,     126.2,     126.2,       0.0);         ( 313411.5,
3995341.5,     126.2,     126.2,       0.0);
     ( 313431.5, 3995341.5,     126.2,     126.2,       0.0);         ( 313451.5,
3995341.5,     126.3,     126.3,       0.0);
     ( 313471.5, 3995341.5,     126.3,     126.3,       0.0);         ( 313491.5,
3995341.5,     126.3,     126.3,       0.0);
     ( 313511.5, 3995341.5,     126.4,     126.4,       0.0);         ( 313531.5,
3995341.5,     126.4,     126.4,       0.0);
     ( 313551.5, 3995341.5,     126.4,     126.4,       0.0);         ( 313571.5,
3995341.5,     126.5,     126.5,       0.0);
     ( 313591.5, 3995341.5,     126.5,     126.5,       0.0);         ( 313611.5,
3995341.5,     126.5,     126.5,       0.0);
     ( 313631.5, 3995341.5,     126.5,     126.5,       0.0);         ( 313651.5,
3995341.5,     126.6,     126.6,       0.0);
     ( 313671.5, 3995341.5,     126.6,     126.6,       0.0);         ( 313691.5,
3995341.5,     126.6,     126.6,       0.0);
     ( 313711.5, 3995341.5,     126.7,     126.7,       0.0);         ( 313731.5,
3995341.5,     126.7,     126.7,       0.0);
     ( 313751.5, 3995341.5,     126.7,     126.7,       0.0);         ( 313771.5,
3995341.5,     126.7,     126.7,       0.0);
     ( 313791.5, 3995341.5,     126.8,     126.8,       0.0);         ( 313811.5,
3995341.5,     126.8,     126.8,       0.0);
     ( 313831.5, 3995341.5,     126.8,     126.8,       0.0);         ( 313851.5,
3995341.5,     126.8,     126.8,       0.0);
     ( 313871.5, 3995341.5,     126.9,     126.9,       0.0);         ( 313891.5,
3995341.5,     126.9,     126.9,       0.0);
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(313991.5, 3995341.5, 127.0, 127.0, 0.0); (314011.5, 3995341.5, 127.0, 127.0, 0.0);
(314031.5, 3995341.5, 127.0, 127.0, 0.0); (314051.5, 3995341.5, 127.0, 127.0, 0.0);
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(314191.5, 3995341.5, 127.1, 127.1, 0.0); (314211.5, 3995341.5, 127.2, 127.2, 0.0);
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(314271.5, 3995341.5, 127.2, 127.2, 0.0); (313271.5, 3995361.5, 126.0, 126.0, 0.0);
(313291.5, 3995361.5, 126.0, 126.0, 0.0); (313311.5, 3995361.5, 126.0, 126.0, 0.0);
(313331.5, 3995361.5, 126.1, 126.1, 0.0); (313351.5, 3995361.5, 126.1, 126.1, 0.0);
(313371.5, 3995361.5, 126.1, 126.1, 0.0); (313391.5, 3995361.5, 126.1, 126.1, 0.0);
(313411.5, 3995361.5, 126.2, 126.2, 0.0); (313431.5, 3995361.5, 126.2, 126.2, 0.0);
(313451.5, 3995361.5, 126.2, 126.2, 0.0); (313471.5, 3995361.5, 126.3, 126.3, 0.0);
(313491.5, 3995361.5, 126.3, 126.3, 0.0); (313511.5, 3995361.5, 126.3, 126.3, 0.0);
(313531.5, 3995361.5, 126.3, 126.3, 0.0); (313551.5, 3995361.5, 126.4, 126.4, 0.0);
(313571.5, 3995361.5, 126.4, 126.4, 0.0); (313591.5, 3995361.5, 126.4, 126.4, 0.0);
(313611.5, 3995361.5, 126.5, 126.5, 0.0); (313631.5, 3995361.5, 126.5, 126.5, 0.0);
(313651.5, 3995361.5, 126.5, 126.5, 0.0); (313671.5, 3995361.5, 126.5, 126.5, 0.0);
(313691.5, 3995361.5, 126.6, 126.6, 0.0); (313711.5, 3995361.5, 126.6, 126.6, 0.0);
(313731.5, 3995361.5, 126.6, 126.6, 0.0); (313751.5, 3995361.5, 126.7, 126.7, 0.0);
(313771.5, 3995361.5, 126.7, 126.7, 0.0); (313791.5, 3995361.5, 126.7, 126.7, 0.0);
(313811.5, 3995361.5, 126.8, 126.8, 0.0); (313831.5, 3995361.5, 126.8, 126.8, 0.0);
(313851.5, 3995361.5, 126.8, 126.8, 0.0); (313871.5, 3995361.5, 126.8, 126.8, 0.0);

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     ( 313891.5, 3995361.5,     126.9,     126.9,       0.0);         ( 313911.5,
3995361.5,     126.9,     126.9,       0.0);
     ( 313931.5, 3995361.5,     126.9,     126.9,       0.0);         ( 313951.5,
3995361.5,     126.9,     126.9,       0.0);
     ( 313971.5, 3995361.5,     126.9,     126.9,       0.0);         ( 313991.5,
3995361.5,     127.0,     127.0,       0.0);
     ( 314011.5, 3995361.5,     127.0,     127.0,       0.0);         ( 314031.5,
3995361.5,     127.0,     127.0,       0.0);
```

```
                                             *** DISCRETE CARTESIAN RECEPTORS ***
                                           (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                          (METERS)

     ( 314051.5, 3995361.5,     127.0,     127.0,       0.0);         ( 314071.5,
3995361.5,     127.0,     127.0,       0.0);
     ( 314091.5, 3995361.5,     127.0,     127.0,       0.0);         ( 314111.5,
3995361.5,     127.1,     127.1,       0.0);
     ( 314131.5, 3995361.5,     127.1,     127.1,       0.0);         ( 314151.5,
3995361.5,     127.1,     127.1,       0.0);
     ( 314171.5, 3995361.5,     127.1,     127.1,       0.0);         ( 314191.5,
3995361.5,     127.1,     127.1,       0.0);
     ( 314211.5, 3995361.5,     127.1,     127.1,       0.0);         ( 314231.5,
3995361.5,     127.2,     127.2,       0.0);
     ( 314251.5, 3995361.5,     127.2,     127.2,       0.0);         ( 314271.5,
3995361.5,     127.2,     127.2,       0.0);
     ( 313271.5, 3995381.5,     126.0,     126.0,       0.0);         ( 313291.5,
3995381.5,     126.0,     126.0,       0.0);
     ( 313311.5, 3995381.5,     126.0,     126.0,       0.0);         ( 313331.5,
3995381.5,     126.0,     126.0,       0.0);
     ( 313351.5, 3995381.5,     126.0,     126.0,       0.0);         ( 313371.5,
3995381.5,     126.1,     126.1,       0.0);
     ( 313391.5, 3995381.5,     126.1,     126.1,       0.0);         ( 313411.5,
3995381.5,     126.1,     126.1,       0.0);
     ( 313431.5, 3995381.5,     126.2,     126.2,       0.0);         ( 313451.5,
3995381.5,     126.2,     126.2,       0.0);
     ( 313471.5, 3995381.5,     126.2,     126.2,       0.0);         ( 313491.5,
3995381.5,     126.2,     126.2,       0.0);
     ( 313511.5, 3995381.5,     126.3,     126.3,       0.0);         ( 313531.5,
3995381.5,     126.3,     126.3,       0.0);
     ( 313551.5, 3995381.5,     126.3,     126.3,       0.0);         ( 313571.5,
3995381.5,     126.4,     126.4,       0.0);
     ( 313591.5, 3995381.5,     126.4,     126.4,       0.0);         ( 313611.5,
3995381.5,     126.4,     126.4,       0.0);
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(313631.5, 3995381.5, 126.5, 126.5, 0.0); (313651.5, 3995381.5, 126.5, 126.5, 0.0);
(313671.5, 3995381.5, 126.5, 126.5, 0.0); (313691.5, 3995381.5, 126.5, 126.5, 0.0);
(313711.5, 3995381.5, 126.6, 126.6, 0.0); (313731.5, 3995381.5, 126.6, 126.6, 0.0);
(313751.5, 3995381.5, 126.6, 126.6, 0.0); (313771.5, 3995381.5, 126.7, 126.7, 0.0);
(313791.5, 3995381.5, 126.7, 126.7, 0.0); (313811.5, 3995381.5, 126.7, 126.7, 0.0);
(313831.5, 3995381.5, 126.7, 126.7, 0.0); (313851.5, 3995381.5, 126.8, 126.8, 0.0);
(313871.5, 3995381.5, 126.8, 126.8, 0.0); (313891.5, 3995381.5, 126.8, 126.8, 0.0);
(313911.5, 3995381.5, 126.8, 126.8, 0.0); (313931.5, 3995381.5, 126.8, 126.8, 0.0);
(313951.5, 3995381.5, 126.9, 126.9, 0.0); (313971.5, 3995381.5, 126.9, 126.9, 0.0);
(313991.5, 3995381.5, 126.9, 126.9, 0.0); (314011.5, 3995381.5, 126.9, 126.9, 0.0);
(314031.5, 3995381.5, 127.0, 127.0, 0.0); (314051.5, 3995381.5, 127.0, 127.0, 0.0);
(314071.5, 3995381.5, 127.0, 127.0, 0.0); (314091.5, 3995381.5, 127.0, 127.0, 0.0);
(314111.5, 3995381.5, 127.0, 127.0, 0.0); (314131.5, 3995381.5, 127.0, 127.0, 0.0);
(314151.5, 3995381.5, 127.1, 127.1, 0.0); (314171.5, 3995381.5, 127.1, 127.1, 0.0);
(314191.5, 3995381.5, 127.1, 127.1, 0.0); (314211.5, 3995381.5, 127.1, 127.1, 0.0);
(314231.5, 3995381.5, 127.1, 127.1, 0.0); (314251.5, 3995381.5, 127.2, 127.2, 0.0);
(314271.5, 3995381.5, 127.2, 127.2, 0.0); (313271.5, 3995401.5, 125.9, 125.9, 0.0);
(313291.5, 3995401.5, 125.9, 125.9, 0.0); (313311.5, 3995401.5, 126.0, 126.0, 0.0);
(313331.5, 3995401.5, 126.0, 126.0, 0.0); (313351.5, 3995401.5, 126.0, 126.0, 0.0);
(313371.5, 3995401.5, 126.0, 126.0, 0.0); (313391.5, 3995401.5, 126.1, 126.1, 0.0);
(313411.5, 3995401.5, 126.1, 126.1, 0.0); (313431.5, 3995401.5, 126.1, 126.1, 0.0);
(313451.5, 3995401.5, 126.1, 126.1, 0.0); (313471.5, 3995401.5, 126.2, 126.2, 0.0);
(313491.5, 3995401.5, 126.2, 126.2, 0.0); (313511.5, 3995401.5, 126.2, 126.2, 0.0);
(313531.5, 3995401.5, 126.3, 126.3, 0.0); (313551.5, 3995401.5, 126.3, 126.3, 0.0);
(313571.5, 3995401.5, 126.3, 126.3, 0.0); (313591.5, 3995401.5, 126.4, 126.4, 0.0);

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3995401.5,     126.4,     126.4,       0.0);
     ( 313651.5, 3995401.5,     126.4,     126.4,       0.0);          ( 313671.5,
3995401.5,     126.5,     126.5,       0.0);
     ( 313691.5, 3995401.5,     126.5,     126.5,       0.0);          ( 313711.5,
3995401.5,     126.5,     126.5,       0.0);
     ( 313731.5, 3995401.5,     126.6,     126.6,       0.0);          ( 313751.5,
3995401.5,     126.6,     126.6,       0.0);
     ( 313771.5, 3995401.5,     126.6,     126.6,       0.0);          ( 313791.5,
3995401.5,     126.6,     126.6,       0.0);
```



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                                                    *** DISCRETE CARTESIAN RECEPTORS ***
                                                  (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                  (METERS)

     ( 313811.5, 3995401.5,     126.7,     126.7,       0.0);          ( 313831.5,
3995401.5,     126.7,     126.7,       0.0);
     ( 313851.5, 3995401.5,     126.7,     126.7,       0.0);          ( 313871.5,
3995401.5,     126.7,     126.7,       0.0);
     ( 313891.5, 3995401.5,     126.8,     126.8,       0.0);          ( 313911.5,
3995401.5,     126.8,     126.8,       0.0);
     ( 313931.5, 3995401.5,     126.8,     126.8,       0.0);          ( 313951.5,
3995401.5,     126.8,     126.8,       0.0);
     ( 313971.5, 3995401.5,     126.8,     126.8,       0.0);          ( 313991.5,
3995401.5,     126.9,     126.9,       0.0);
     ( 314011.5, 3995401.5,     126.9,     126.9,       0.0);          ( 314031.5,
3995401.5,     126.9,     126.9,       0.0);
     ( 314051.5, 3995401.5,     126.9,     126.9,       0.0);          ( 314071.5,
3995401.5,     127.0,     127.0,       0.0);
     ( 314091.5, 3995401.5,     127.0,     127.0,       0.0);          ( 314111.5,
3995401.5,     127.0,     127.0,       0.0);
     ( 314131.5, 3995401.5,     127.0,     127.0,       0.0);          ( 314151.5,
3995401.5,     127.0,     127.0,       0.0);
     ( 314171.5, 3995401.5,     127.0,     127.0,       0.0);          ( 314191.5,
3995401.5,     127.1,     127.1,       0.0);
     ( 314211.5, 3995401.5,     127.1,     127.1,       0.0);          ( 314231.5,
3995401.5,     127.1,     127.1,       0.0);
     ( 314251.5, 3995401.5,     127.1,     127.1,       0.0);          ( 314271.5,
3995401.5,     127.2,     127.2,       0.0);
     ( 313271.5, 3995421.5,     125.9,     125.9,       0.0);          ( 313291.5,
3995421.5,     125.9,     125.9,       0.0);
     ( 313311.5, 3995421.5,     125.9,     125.9,       0.0);          ( 313331.5,
3995421.5,     126.0,     126.0,       0.0);
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(313391.5, 3995421.5, 126.0, 126.0, 0.0); (313411.5,
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(313431.5, 3995421.5, 126.1, 126.1, 0.0); (313451.5,
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(313471.5, 3995421.5, 126.1, 126.1, 0.0); (313491.5,
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(313511.5, 3995421.5, 126.2, 126.2, 0.0); (313531.5,
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(313551.5, 3995421.5, 126.3, 126.3, 0.0); (313571.5,
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(313591.5, 3995421.5, 126.3, 126.3, 0.0); (313611.5,
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(313671.5, 3995421.5, 126.4, 126.4, 0.0); (313691.5,
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(313711.5, 3995421.5, 126.5, 126.5, 0.0); (313731.5,
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(313751.5, 3995421.5, 126.5, 126.5, 0.0); (313771.5,
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(313791.5, 3995421.5, 126.6, 126.6, 0.0); (313811.5,
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(313831.5, 3995421.5, 126.6, 126.6, 0.0); (313851.5,
3995421.5, 126.7, 126.7, 0.0);
(313871.5, 3995421.5, 126.7, 126.7, 0.0); (313891.5,
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(313951.5, 3995421.5, 126.8, 126.8, 0.0); (313971.5,
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(313991.5, 3995421.5, 126.8, 126.8, 0.0); (314011.5,
3995421.5, 126.8, 126.8, 0.0);
(314031.5, 3995421.5, 126.9, 126.9, 0.0); (314051.5,
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(314071.5, 3995421.5, 126.9, 126.9, 0.0); (314091.5,
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(314111.5, 3995421.5, 127.0, 127.0, 0.0); (314131.5,
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(314151.5, 3995421.5, 127.0, 127.0, 0.0); (314171.5,
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(314191.5, 3995421.5, 127.0, 127.0, 0.0); (314211.5,
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(314231.5, 3995421.5, 127.1, 127.1, 0.0); (314251.5,
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(314271.5, 3995421.5, 127.1, 127.1, 0.0); (313271.5,
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(313291.5, 3995441.5, 125.9, 125.9, 0.0); (313311.5,
3995441.5, 125.9, 125.9, 0.0);

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     ( 313331.5, 3995441.5,     125.9,     125.9,       0.0);         ( 313351.5,
3995441.5,     126.0,     126.0,       0.0);
     ( 313371.5, 3995441.5,     126.0,     126.0,       0.0);         ( 313391.5,
3995441.5,     126.0,     126.0,       0.0);
     ( 313411.5, 3995441.5,     126.0,     126.0,       0.0);         ( 313431.5,
3995441.5,     126.0,     126.0,       0.0);
     ( 313451.5, 3995441.5,     126.1,     126.1,       0.0);         ( 313471.5,
3995441.5,     126.1,     126.1,       0.0);
     ( 313491.5, 3995441.5,     126.1,     126.1,       0.0);         ( 313511.5,
3995441.5,     126.2,     126.2,       0.0);
     ( 313531.5, 3995441.5,     126.2,     126.2,       0.0);         ( 313551.5,
3995441.5,     126.2,     126.2,       0.0);
```

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↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\LombardiPortervilleMitigated\LombardiPortervill ***        07/23/21
 *** AERMET - VERSION  18081 ***   ***
                       ***        10:19:35

                                  PAGE   8
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*
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                                                       *** DISCRETE CARTESIAN RECEPTORS ***
                                                     (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                     (METERS)

     ( 313571.5, 3995441.5,     126.2,     126.2,       0.0);         ( 313591.5,
3995441.5,     126.3,     126.3,       0.0);
     ( 313611.5, 3995441.5,     126.3,     126.3,       0.0);         ( 313631.5,
3995441.5,     126.3,     126.3,       0.0);
     ( 313651.5, 3995441.5,     126.4,     126.4,       0.0);         ( 313671.5,
3995441.5,     126.4,     126.4,       0.0);
     ( 313691.5, 3995441.5,     126.4,     126.4,       0.0);         ( 313711.5,
3995441.5,     126.4,     126.4,       0.0);
     ( 313731.5, 3995441.5,     126.5,     126.5,       0.0);         ( 313751.5,
3995441.5,     126.5,     126.5,       0.0);
     ( 313771.5, 3995441.5,     126.5,     126.5,       0.0);         ( 313791.5,
3995441.5,     126.5,     126.5,       0.0);
     ( 313811.5, 3995441.5,     126.6,     126.6,       0.0);         ( 313831.5,
3995441.5,     126.6,     126.6,       0.0);
     ( 313851.5, 3995441.5,     126.6,     126.6,       0.0);         ( 313871.5,
3995441.5,     126.6,     126.6,       0.0);
     ( 313891.5, 3995441.5,     126.7,     126.7,       0.0);         ( 313911.5,
3995441.5,     126.7,     126.7,       0.0);
     ( 313931.5, 3995441.5,     126.7,     126.7,       0.0);         ( 313951.5,
3995441.5,     126.7,     126.7,       0.0);
     ( 313971.5, 3995441.5,     126.8,     126.8,       0.0);         ( 313991.5,
3995441.5,     126.8,     126.8,       0.0);
     ( 314011.5, 3995441.5,     126.8,     126.8,       0.0);         ( 314031.5,
3995441.5,     126.8,     126.8,       0.0);
     ( 314051.5, 3995441.5,     126.8,     126.8,       0.0);         ( 314071.5,
3995441.5,     126.9,     126.9,       0.0);
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(314091.5, 3995441.5, 126.9, 126.9, 0.0); (314111.5, 3995441.5, 126.9, 126.9, 0.0);
(314131.5, 3995441.5, 126.9, 126.9, 0.0); (314151.5, 3995441.5, 127.0, 127.0, 0.0);
(314171.5, 3995441.5, 127.0, 127.0, 0.0); (314191.5, 3995441.5, 127.0, 127.0, 0.0);
(314211.5, 3995441.5, 127.0, 127.0, 0.0); (314231.5, 3995441.5, 127.1, 127.1, 0.0);
(314251.5, 3995441.5, 127.1, 127.1, 0.0); (314271.5, 3995441.5, 127.1, 127.1, 0.0);
(313271.5, 3995461.5, 125.8, 125.8, 0.0); (313291.5, 3995461.5, 125.8, 125.8, 0.0);
(313311.5, 3995461.5, 125.9, 125.9, 0.0); (313331.5, 3995461.5, 125.9, 125.9, 0.0);
(313351.5, 3995461.5, 125.9, 125.9, 0.0); (313371.5, 3995461.5, 125.9, 125.9, 0.0);
(313391.5, 3995461.5, 126.0, 126.0, 0.0); (313411.5, 3995461.5, 126.0, 126.0, 0.0);
(313431.5, 3995461.5, 126.0, 126.0, 0.0); (313451.5, 3995461.5, 126.0, 126.0, 0.0);
(313471.5, 3995461.5, 126.1, 126.1, 0.0); (313491.5, 3995461.5, 126.1, 126.1, 0.0);
(313511.5, 3995461.5, 126.1, 126.1, 0.0); (313531.5, 3995461.5, 126.1, 126.1, 0.0);
(313551.5, 3995461.5, 126.2, 126.2, 0.0); (313571.5, 3995461.5, 126.2, 126.2, 0.0);
(313591.5, 3995461.5, 126.2, 126.2, 0.0); (313611.5, 3995461.5, 126.3, 126.3, 0.0);
(313631.5, 3995461.5, 126.3, 126.3, 0.0); (313651.5, 3995461.5, 126.3, 126.3, 0.0);
(313671.5, 3995461.5, 126.3, 126.3, 0.0); (313691.5, 3995461.5, 126.4, 126.4, 0.0);
(313711.5, 3995461.5, 126.4, 126.4, 0.0); (313731.5, 3995461.5, 126.4, 126.4, 0.0);
(313751.5, 3995461.5, 126.5, 126.5, 0.0); (313771.5, 3995461.5, 126.5, 126.5, 0.0);
(313791.5, 3995461.5, 126.5, 126.5, 0.0); (313811.5, 3995461.5, 126.5, 126.5, 0.0);
(313831.5, 3995461.5, 126.6, 126.6, 0.0); (313851.5, 3995461.5, 126.6, 126.6, 0.0);
(313871.5, 3995461.5, 126.6, 126.6, 0.0); (313891.5, 3995461.5, 126.6, 126.6, 0.0);
(313911.5, 3995461.5, 126.6, 126.6, 0.0); (313931.5, 3995461.5, 126.7, 126.7, 0.0);
(313951.5, 3995461.5, 126.7, 126.7, 0.0); (313971.5, 3995461.5, 126.7, 126.7, 0.0);
(313991.5, 3995461.5, 126.7, 126.7, 0.0); (314011.5, 3995461.5, 126.8, 126.8, 0.0);
(314031.5, 3995461.5, 126.8, 126.8, 0.0); (314051.5, 3995461.5, 126.8, 126.8, 0.0);

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     ( 314071.5, 3995461.5,     126.8,     126.8,       0.0);         ( 314091.5,
3995461.5,     126.9,     126.9,       0.0);
     ( 314111.5, 3995461.5,     126.9,     126.9,       0.0);         ( 314131.5,
3995461.5,     126.9,     126.9,       0.0);
     ( 314151.5, 3995461.5,     126.9,     126.9,       0.0);         ( 314171.5,
3995461.5,     127.0,     127.0,       0.0);
     ( 314191.5, 3995461.5,     127.0,     127.0,       0.0);         ( 314211.5,
3995461.5,     127.0,     127.0,       0.0);
     ( 314231.5, 3995461.5,     127.0,     127.0,       0.0);         ( 314251.5,
3995461.5,     127.1,     127.1,       0.0);
     ( 314271.5, 3995461.5,     127.1,     127.1,       0.0);         ( 313271.5,
3995481.5,     125.8,     125.8,       0.0);
     ( 313291.5, 3995481.5,     125.8,     125.8,       0.0);         ( 313311.5,
3995481.5,     125.8,     125.8,       0.0);
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```
                                                      *** DISCRETE CARTESIAN RECEPTORS ***
                                                    (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                    (METERS)

     ( 313331.5, 3995481.5,     125.8,     125.8,       0.0);         ( 313351.5,
3995481.5,     125.9,     125.9,       0.0);
     ( 313371.5, 3995481.5,     125.9,     125.9,       0.0);         ( 313391.5,
3995481.5,     125.9,     125.9,       0.0);
     ( 313411.5, 3995481.5,     126.0,     126.0,       0.0);         ( 313431.5,
3995481.5,     126.0,     126.0,       0.0);
     ( 313451.5, 3995481.5,     126.0,     126.0,       0.0);         ( 313471.5,
3995481.5,     126.0,     126.0,       0.0);
     ( 313491.5, 3995481.5,     126.1,     126.1,       0.0);         ( 313511.5,
3995481.5,     126.1,     126.1,       0.0);
     ( 313531.5, 3995481.5,     126.1,     126.1,       0.0);         ( 313551.5,
3995481.5,     126.1,     126.1,       0.0);
     ( 313571.5, 3995481.5,     126.2,     126.2,       0.0);         ( 313591.5,
3995481.5,     126.2,     126.2,       0.0);
     ( 313611.5, 3995481.5,     126.2,     126.2,       0.0);         ( 313631.5,
3995481.5,     126.3,     126.3,       0.0);
     ( 313651.5, 3995481.5,     126.3,     126.3,       0.0);         ( 313671.5,
3995481.5,     126.3,     126.3,       0.0);
     ( 313691.5, 3995481.5,     126.3,     126.3,       0.0);         ( 313711.5,
3995481.5,     126.3,     126.3,       0.0);
     ( 313731.5, 3995481.5,     126.4,     126.4,       0.0);         ( 313751.5,
3995481.5,     126.4,     126.4,       0.0);
     ( 313771.5, 3995481.5,     126.4,     126.4,       0.0);         ( 313791.5,
3995481.5,     126.5,     126.5,       0.0);
```

(313811.5, 3995481.5, 126.5, 126.5, 0.0); (313831.5, 3995481.5, 126.5, 126.5, 0.0);
(313851.5, 3995481.5, 126.5, 126.5, 0.0); (313871.5, 3995481.5, 126.6, 126.6, 0.0);
(313891.5, 3995481.5, 126.6, 126.6, 0.0); (313911.5, 3995481.5, 126.6, 126.6, 0.0);
(313931.5, 3995481.5, 126.6, 126.6, 0.0); (313951.5, 3995481.5, 126.6, 126.6, 0.0);
(313971.5, 3995481.5, 126.7, 126.7, 0.0); (313991.5, 3995481.5, 126.7, 126.7, 0.0);
(314011.5, 3995481.5, 126.7, 126.7, 0.0); (314031.5, 3995481.5, 126.8, 126.8, 0.0);
(314051.5, 3995481.5, 126.8, 126.8, 0.0); (314071.5, 3995481.5, 126.8, 126.8, 0.0);
(314091.5, 3995481.5, 126.8, 126.8, 0.0); (314111.5, 3995481.5, 126.8, 126.8, 0.0);
(314131.5, 3995481.5, 126.9, 126.9, 0.0); (314151.5, 3995481.5, 126.9, 126.9, 0.0);
(314171.5, 3995481.5, 126.9, 126.9, 0.0); (314191.5, 3995481.5, 126.9, 126.9, 0.0);
(314211.5, 3995481.5, 127.0, 127.0, 0.0); (314231.5, 3995481.5, 127.0, 127.0, 0.0);
(314251.5, 3995481.5, 127.0, 127.0, 0.0); (314271.5, 3995481.5, 127.1, 127.1, 0.0);
(313271.5, 3995501.5, 125.8, 125.8, 0.0); (313291.5, 3995501.5, 125.8, 125.8, 0.0);
(313311.5, 3995501.5, 125.8, 125.8, 0.0); (313331.5, 3995501.5, 125.8, 125.8, 0.0);
(313351.5, 3995501.5, 125.8, 125.8, 0.0); (313371.5, 3995501.5, 125.9, 125.9, 0.0);
(313391.5, 3995501.5, 125.9, 125.9, 0.0); (313411.5, 3995501.5, 125.9, 125.9, 0.0);
(313431.5, 3995501.5, 126.0, 126.0, 0.0); (313451.5, 3995501.5, 126.0, 126.0, 0.0);
(313471.5, 3995501.5, 126.0, 126.0, 0.0); (313491.5, 3995501.5, 126.0, 126.0, 0.0);
(313511.5, 3995501.5, 126.0, 126.0, 0.0); (313531.5, 3995501.5, 126.1, 126.1, 0.0);
(313551.5, 3995501.5, 126.1, 126.1, 0.0); (313571.5, 3995501.5, 126.1, 126.1, 0.0);
(313591.5, 3995501.5, 126.2, 126.2, 0.0); (313611.5, 3995501.5, 126.2, 126.2, 0.0);
(313631.5, 3995501.5, 126.2, 126.2, 0.0); (313651.5, 3995501.5, 126.2, 126.2, 0.0);
(313671.5, 3995501.5, 126.3, 126.3, 0.0); (313691.5, 3995501.5, 126.3, 126.3, 0.0);
(313711.5, 3995501.5, 126.3, 126.3, 0.0); (313731.5, 3995501.5, 126.3, 126.3, 0.0);
(313751.5, 3995501.5, 126.4, 126.4, 0.0); (313771.5, 3995501.5, 126.4, 126.4, 0.0);

(313791.5, 3995501.5, 126.4, 126.4, 0.0); (313811.5, 3995501.5, 126.5, 126.5, 0.0);
(313831.5, 3995501.5, 126.5, 126.5, 0.0); (313851.5, 3995501.5, 126.5, 126.5, 0.0);
(313871.5, 3995501.5, 126.5, 126.5, 0.0); (313891.5, 3995501.5, 126.5, 126.5, 0.0);
(313911.5, 3995501.5, 126.6, 126.6, 0.0); (313931.5, 3995501.5, 126.6, 126.6, 0.0);
(313951.5, 3995501.5, 126.6, 126.6, 0.0); (313971.5, 3995501.5, 126.6, 126.6, 0.0);
(313991.5, 3995501.5, 126.7, 126.7, 0.0); (314011.5, 3995501.5, 126.7, 126.7, 0.0);
(314031.5, 3995501.5, 126.7, 126.7, 0.0); (314051.5, 3995501.5, 126.7, 126.7, 0.0);
(314071.5, 3995501.5, 126.8, 126.8, 0.0); (314091.5, 3995501.5, 126.8, 126.8, 0.0);

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(314111.5, 3995501.5, 126.8, 126.8, 0.0); (314131.5, 3995501.5, 126.8, 126.8, 0.0);
(314151.5, 3995501.5, 126.9, 126.9, 0.0); (314171.5, 3995501.5, 126.9, 126.9, 0.0);
(314191.5, 3995501.5, 126.9, 126.9, 0.0); (314211.5, 3995501.5, 127.0, 127.0, 0.0);
(314231.5, 3995501.5, 127.0, 127.0, 0.0); (314251.5, 3995501.5, 127.0, 127.0, 0.0);
(314271.5, 3995501.5, 127.0, 127.0, 0.0); (313271.5, 3995521.5, 125.7, 125.7, 0.0);
(313291.5, 3995521.5, 125.7, 125.7, 0.0); (313311.5, 3995521.5, 125.8, 125.8, 0.0);
(313331.5, 3995521.5, 125.8, 125.8, 0.0); (313351.5, 3995521.5, 125.8, 125.8, 0.0);
(313371.5, 3995521.5, 125.8, 125.8, 0.0); (313391.5, 3995521.5, 125.9, 125.9, 0.0);
(313411.5, 3995521.5, 125.9, 125.9, 0.0); (313431.5, 3995521.5, 125.9, 125.9, 0.0);
(313451.5, 3995521.5, 125.9, 125.9, 0.0); (313471.5, 3995521.5, 126.0, 126.0, 0.0);
(313491.5, 3995521.5, 126.0, 126.0, 0.0); (313511.5, 3995521.5, 126.0, 126.0, 0.0);

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     ( 313531.5, 3995521.5,     126.0,     126.0,       0.0);          ( 313551.5,
3995521.5,     126.1,     126.1,       0.0);
     ( 313571.5, 3995521.5,     126.1,     126.1,       0.0);          ( 313591.5,
3995521.5,     126.1,     126.1,       0.0);
     ( 313611.5, 3995521.5,     126.2,     126.2,       0.0);          ( 313631.5,
3995521.5,     126.2,     126.2,       0.0);
     ( 313651.5, 3995521.5,     126.2,     126.2,       0.0);          ( 313671.5,
3995521.5,     126.2,     126.2,       0.0);
     ( 313691.5, 3995521.5,     126.2,     126.2,       0.0);          ( 313711.5,
3995521.5,     126.3,     126.3,       0.0);
     ( 313731.5, 3995521.5,     126.3,     126.3,       0.0);          ( 313751.5,
3995521.5,     126.3,     126.3,       0.0);
     ( 313771.5, 3995521.5,     126.3,     126.3,       0.0);          ( 313791.5,
3995521.5,     126.4,     126.4,       0.0);
     ( 313811.5, 3995521.5,     126.4,     126.4,       0.0);          ( 313831.5,
3995521.5,     126.4,     126.4,       0.0);
     ( 313851.5, 3995521.5,     126.5,     126.5,       0.0);          ( 313871.5,
3995521.5,     126.5,     126.5,       0.0);
     ( 313891.5, 3995521.5,     126.5,     126.5,       0.0);          ( 313911.5,
3995521.5,     126.5,     126.5,       0.0);
     ( 313931.5, 3995521.5,     126.5,     126.5,       0.0);          ( 313951.5,
3995521.5,     126.6,     126.6,       0.0);
     ( 313971.5, 3995521.5,     126.6,     126.6,       0.0);          ( 313991.5,
3995521.5,     126.6,     126.6,       0.0);
     ( 314011.5, 3995521.5,     126.6,     126.6,       0.0);          ( 314031.5,
3995521.5,     126.7,     126.7,       0.0);
     ( 314051.5, 3995521.5,     126.7,     126.7,       0.0);          ( 314071.5,
3995521.5,     126.7,     126.7,       0.0);
     ( 314091.5, 3995521.5,     126.8,     126.8,       0.0);          ( 314111.5,
3995521.5,     126.8,     126.8,       0.0);
     ( 314131.5, 3995521.5,     126.8,     126.8,       0.0);          ( 314151.5,
3995521.5,     126.8,     126.8,       0.0);
     ( 314171.5, 3995521.5,     126.9,     126.9,       0.0);          ( 314191.5,
3995521.5,     126.9,     126.9,       0.0);
     ( 314211.5, 3995521.5,     126.9,     126.9,       0.0);          ( 314231.5,
3995521.5,     127.0,     127.0,       0.0);
     ( 314251.5, 3995521.5,     127.0,     127.0,       0.0);          ( 314271.5,
3995521.5,     127.0,     127.0,       0.0);
     ( 313271.5, 3995541.5,     125.7,     125.7,       0.0);          ( 313291.5,
3995541.5,     125.7,     125.7,       0.0);
     ( 313311.5, 3995541.5,     125.7,     125.7,       0.0);          ( 313331.5,
3995541.5,     125.8,     125.8,       0.0);
     ( 313351.5, 3995541.5,     125.8,     125.8,       0.0);          ( 313371.5,
3995541.5,     125.8,     125.8,       0.0);
     ( 313391.5, 3995541.5,     125.8,     125.8,       0.0);          ( 313411.5,
3995541.5,     125.8,     125.8,       0.0);
     ( 313431.5, 3995541.5,     125.9,     125.9,       0.0);          ( 313451.5,
3995541.5,     125.9,     125.9,       0.0);
     ( 313471.5, 3995541.5,     125.9,     125.9,       0.0);          ( 313491.5,
3995541.5,     126.0,     126.0,       0.0);
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```
     ( 313511.5, 3995541.5,     126.0,     126.0,       0.0);         ( 313531.5,
3995541.5,     126.0,     126.0,       0.0);
     ( 313551.5, 3995541.5,     126.0,     126.0,       0.0);         ( 313571.5,
3995541.5,     126.1,     126.1,       0.0);
     ( 313591.5, 3995541.5,     126.1,     126.1,       0.0);         ( 313611.5,
3995541.5,     126.1,     126.1,       0.0);
     ( 313631.5, 3995541.5,     126.1,     126.1,       0.0);         ( 313651.5,
3995541.5,     126.2,     126.2,       0.0);
     ( 313671.5, 3995541.5,     126.2,     126.2,       0.0);         ( 313691.5,
3995541.5,     126.2,     126.2,       0.0);
     ( 313711.5, 3995541.5,     126.2,     126.2,       0.0);         ( 313731.5,
3995541.5,     126.3,     126.3,       0.0);
     ( 313751.5, 3995541.5,     126.3,     126.3,       0.0);         ( 313771.5,
3995541.5,     126.3,     126.3,       0.0);
     ( 313791.5, 3995541.5,     126.3,     126.3,       0.0);         ( 313811.5,
3995541.5,     126.3,     126.3,       0.0);
     ( 313831.5, 3995541.5,     126.4,     126.4,       0.0);         ( 313851.5,
3995541.5,     126.4,     126.4,       0.0);
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\LombardiPortervilleMitigated\LombardiPortervill ***        07/23/21
 *** AERMET - VERSION  18081 ***   ***
                       ***        10:19:35

                                  PAGE  11
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                                    *** DISCRETE CARTESIAN RECEPTORS ***
                                                  (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                 (METERS)

     ( 313871.5, 3995541.5,     126.4,     126.4,       0.0);         ( 313891.5,
3995541.5,     126.4,     126.4,       0.0);
     ( 313911.5, 3995541.5,     126.5,     126.5,       0.0);         ( 313931.5,
3995541.5,     126.5,     126.5,       0.0);
     ( 313951.5, 3995541.5,     126.5,     126.5,       0.0);         ( 313971.5,
3995541.5,     126.5,     126.5,       0.0);
     ( 313991.5, 3995541.5,     126.6,     126.6,       0.0);         ( 314011.5,
3995541.5,     126.6,     126.6,       0.0);
     ( 314031.5, 3995541.5,     126.6,     126.6,       0.0);         ( 314051.5,
3995541.5,     126.7,     126.7,       0.0);
     ( 314071.5, 3995541.5,     126.7,     126.7,       0.0);         ( 314091.5,
3995541.5,     126.7,     126.7,       0.0);
     ( 314111.5, 3995541.5,     126.8,     126.8,       0.0);         ( 314131.5,
3995541.5,     126.8,     126.8,       0.0);
     ( 314151.5, 3995541.5,     126.8,     126.8,       0.0);         ( 314171.5,
3995541.5,     126.8,     126.8,       0.0);
     ( 314191.5, 3995541.5,     126.9,     126.9,       0.0);         ( 314211.5,
3995541.5,     126.9,     126.9,       0.0);
     ( 314231.5, 3995541.5,     126.9,     126.9,       0.0);         ( 314251.5,
3995541.5,     127.0,     127.0,       0.0);
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(314271.5, 3995541.5, 127.0, 127.0, 0.0); (313271.5, 3995561.5, 125.7, 125.7, 0.0);
(313291.5, 3995561.5, 125.7, 125.7, 0.0); (313311.5, 3995561.5, 125.7, 125.7, 0.0);
(313331.5, 3995561.5, 125.7, 125.7, 0.0); (313351.5, 3995561.5, 125.8, 125.8, 0.0);
(313371.5, 3995561.5, 125.8, 125.8, 0.0); (313391.5, 3995561.5, 125.8, 125.8, 0.0);
(313411.5, 3995561.5, 125.8, 125.8, 0.0); (313431.5, 3995561.5, 125.8, 125.8, 0.0);
(313451.5, 3995561.5, 125.9, 125.9, 0.0); (313471.5, 3995561.5, 125.9, 125.9, 0.0);
(313491.5, 3995561.5, 125.9, 125.9, 0.0); (313511.5, 3995561.5, 126.0, 126.0, 0.0);
(313531.5, 3995561.5, 126.0, 126.0, 0.0); (313551.5, 3995561.5, 126.0, 126.0, 0.0);
(313571.5, 3995561.5, 126.0, 126.0, 0.0); (313591.5, 3995561.5, 126.1, 126.1, 0.0);
(313611.5, 3995561.5, 126.1, 126.1, 0.0); (313631.5, 3995561.5, 126.1, 126.1, 0.0);
(313651.5, 3995561.5, 126.1, 126.1, 0.0); (313671.5, 3995561.5, 126.1, 126.1, 0.0);
(313691.5, 3995561.5, 126.2, 126.2, 0.0); (313711.5, 3995561.5, 126.2, 126.2, 0.0);
(313731.5, 3995561.5, 126.2, 126.2, 0.0); (313751.5, 3995561.5, 126.2, 126.2, 0.0);
(313771.5, 3995561.5, 126.2, 126.2, 0.0); (313791.5, 3995561.5, 126.3, 126.3, 0.0);
(313811.5, 3995561.5, 126.3, 126.3, 0.0); (313831.5, 3995561.5, 126.3, 126.3, 0.0);
(313851.5, 3995561.5, 126.3, 126.3, 0.0); (313871.5, 3995561.5, 126.4, 126.4, 0.0);
(313891.5, 3995561.5, 126.4, 126.4, 0.0); (313911.5, 3995561.5, 126.4, 126.4, 0.0);
(313931.5, 3995561.5, 126.4, 126.4, 0.0); (313951.5, 3995561.5, 126.5, 126.5, 0.0);
(313971.5, 3995561.5, 126.5, 126.5, 0.0); (313991.5, 3995561.5, 126.5, 126.5, 0.0);
(314011.5, 3995561.5, 126.6, 126.6, 0.0); (314031.5, 3995561.5, 126.6, 126.6, 0.0);
(314051.5, 3995561.5, 126.6, 126.6, 0.0); (314071.5, 3995561.5, 126.6, 126.6, 0.0);
(314091.5, 3995561.5, 126.7, 126.7, 0.0); (314111.5, 3995561.5, 126.7, 126.7, 0.0);
(314131.5, 3995561.5, 126.7, 126.7, 0.0); (314151.5, 3995561.5, 126.8, 126.8, 0.0);
(314171.5, 3995561.5, 126.8, 126.8, 0.0); (314191.5, 3995561.5, 126.8, 126.8, 0.0);
(314211.5, 3995561.5, 126.8, 126.8, 0.0); (314231.5, 3995561.5, 126.9, 126.9, 0.0);

```
     ( 314251.5, 3995561.5,     126.9,     126.9,       0.0);          ( 314271.5,
3995561.5,     127.0,     127.0,       0.0);
     ( 313271.5, 3995581.5,     125.6,     125.6,       0.0);          ( 313291.5,
3995581.5,     125.7,     125.7,       0.0);
     ( 313311.5, 3995581.5,     125.7,     125.7,       0.0);          ( 313331.5,
3995581.5,     125.7,     125.7,       0.0);
     ( 313351.5, 3995581.5,     125.7,     125.7,       0.0);          ( 313371.5,
3995581.5,     125.8,     125.8,       0.0);
     ( 313391.5, 3995581.5,     125.8,     125.8,       0.0);          ( 313411.5,
3995581.5,     125.8,     125.8,       0.0);
     ( 313431.5, 3995581.5,     125.8,     125.8,       0.0);          ( 313451.5,
3995581.5,     125.8,     125.8,       0.0);
     ( 313471.5, 3995581.5,     125.9,     125.9,       0.0);          ( 313491.5,
3995581.5,     125.9,     125.9,       0.0);
     ( 313511.5, 3995581.5,     125.9,     125.9,       0.0);          ( 313531.5,
3995581.5,     126.0,     126.0,       0.0);
     ( 313551.5, 3995581.5,     126.0,     126.0,       0.0);          ( 313571.5,
3995581.5,     126.0,     126.0,       0.0);
     ( 313591.5, 3995581.5,     126.0,     126.0,       0.0);          ( 313611.5,
3995581.5,     126.0,     126.0,       0.0);
```

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
     ( 313631.5, 3995581.5,     126.1,     126.1,       0.0);          ( 313651.5,
3995581.5,     126.1,     126.1,       0.0);
     ( 313671.5, 3995581.5,     126.1,     126.1,       0.0);          ( 313691.5,
3995581.5,     126.1,     126.1,       0.0);
     ( 313711.5, 3995581.5,     126.1,     126.1,       0.0);          ( 313731.5,
3995581.5,     126.2,     126.2,       0.0);
     ( 313751.5, 3995581.5,     126.2,     126.2,       0.0);          ( 313771.5,
3995581.5,     126.2,     126.2,       0.0);
     ( 313791.5, 3995581.5,     126.2,     126.2,       0.0);          ( 313811.5,
3995581.5,     126.2,     126.2,       0.0);
     ( 313831.5, 3995581.5,     126.3,     126.3,       0.0);          ( 313851.5,
3995581.5,     126.3,     126.3,       0.0);
     ( 313871.5, 3995581.5,     126.3,     126.3,       0.0);          ( 313891.5,
3995581.5,     126.3,     126.3,       0.0);
     ( 313911.5, 3995581.5,     126.4,     126.4,       0.0);          ( 313931.5,
3995581.5,     126.4,     126.4,       0.0);
     ( 313951.5, 3995581.5,     126.4,     126.4,       0.0);          ( 313971.5,
3995581.5,     126.4,     126.4,       0.0);
```

(313991.5, 3995581.5, 126.5, 126.5, 0.0); (314011.5,
3995581.5, 126.5, 126.5, 0.0);
(314031.5, 3995581.5, 126.5, 126.5, 0.0); (314051.5,
3995581.5, 126.6, 126.6, 0.0);
(314071.5, 3995581.5, 126.6, 126.6, 0.0); (314091.5,
3995581.5, 126.6, 126.6, 0.0);
(314111.5, 3995581.5, 126.7, 126.7, 0.0); (314131.5,
3995581.5, 126.7, 126.7, 0.0);
(314151.5, 3995581.5, 126.7, 126.7, 0.0); (314171.5,
3995581.5, 126.8, 126.8, 0.0);
(314191.5, 3995581.5, 126.8, 126.8, 0.0); (314211.5,
3995581.5, 126.8, 126.8, 0.0);
(314231.5, 3995581.5, 126.9, 126.9, 0.0); (314251.5,
3995581.5, 126.9, 126.9, 0.0);
(314271.5, 3995581.5, 126.9, 126.9, 0.0); (313271.5,
3995601.5, 125.6, 125.6, 0.0);
(313291.5, 3995601.5, 125.6, 125.6, 0.0); (313311.5,
3995601.5, 125.7, 125.7, 0.0);
(313331.5, 3995601.5, 125.7, 125.7, 0.0); (313351.5,
3995601.5, 125.7, 125.7, 0.0);
(313371.5, 3995601.5, 125.7, 125.7, 0.0); (313391.5,
3995601.5, 125.8, 125.8, 0.0);
(313411.5, 3995601.5, 125.8, 125.8, 0.0); (313431.5,
3995601.5, 125.8, 125.8, 0.0);
(313451.5, 3995601.5, 125.8, 125.8, 0.0); (313471.5,
3995601.5, 125.8, 125.8, 0.0);
(313491.5, 3995601.5, 125.9, 125.9, 0.0); (313511.5,
3995601.5, 125.9, 125.9, 0.0);
(313531.5, 3995601.5, 125.9, 125.9, 0.0); (313551.5,
3995601.5, 125.9, 125.9, 0.0);
(313571.5, 3995601.5, 126.0, 126.0, 0.0); (313591.5,
3995601.5, 126.0, 126.0, 0.0);
(313611.5, 3995601.5, 126.0, 126.0, 0.0); (313631.5,
3995601.5, 126.0, 126.0, 0.0);
(313651.5, 3995601.5, 126.0, 126.0, 0.0); (313671.5,
3995601.5, 126.1, 126.1, 0.0);
(313691.5, 3995601.5, 126.1, 126.1, 0.0); (313711.5,
3995601.5, 126.1, 126.1, 0.0);
(313731.5, 3995601.5, 126.1, 126.1, 0.0); (313751.5,
3995601.5, 126.1, 126.1, 0.0);
(313771.5, 3995601.5, 126.2, 126.2, 0.0); (313791.5,
3995601.5, 126.2, 126.2, 0.0);
(313811.5, 3995601.5, 126.2, 126.2, 0.0); (313831.5,
3995601.5, 126.2, 126.2, 0.0);
(313851.5, 3995601.5, 126.2, 126.2, 0.0); (313871.5,
3995601.5, 126.3, 126.3, 0.0);
(313891.5, 3995601.5, 126.3, 126.3, 0.0); (313911.5,
3995601.5, 126.3, 126.3, 0.0);
(313931.5, 3995601.5, 126.3, 126.3, 0.0); (313951.5,
3995601.5, 126.4, 126.4, 0.0);

```
     ( 313971.5, 3995601.5,     126.4,     126.4,       0.0);          ( 313991.5,
3995601.5,     126.4,     126.4,       0.0);
     ( 314011.5, 3995601.5,     126.5,     126.5,       0.0);          ( 314031.5,
3995601.5,     126.5,     126.5,       0.0);
     ( 314051.5, 3995601.5,     126.5,     126.5,       0.0);          ( 314071.5,
3995601.5,     126.6,     126.6,       0.0);
     ( 314091.5, 3995601.5,     126.6,     126.6,       0.0);          ( 314111.5,
3995601.5,     126.6,     126.6,       0.0);
     ( 314131.5, 3995601.5,     126.7,     126.7,       0.0);          ( 314151.5,
3995601.5,     126.7,     126.7,       0.0);
     ( 314171.5, 3995601.5,     126.7,     126.7,       0.0);          ( 314191.5,
3995601.5,     126.8,     126.8,       0.0);
     ( 314211.5, 3995601.5,     126.8,     126.8,       0.0);          ( 314231.5,
3995601.5,     126.8,     126.8,       0.0);
     ( 314251.5, 3995601.5,     126.9,     126.9,       0.0);          ( 314271.5,
3995601.5,     126.9,     126.9,       0.0);
     ( 313271.5, 3995621.5,     125.6,     125.6,       0.0);          ( 313291.5,
3995621.5,     125.6,     125.6,       0.0);
     ( 313311.5, 3995621.5,     125.6,     125.6,       0.0);          ( 313331.5,
3995621.5,     125.7,     125.7,       0.0);
     ( 313351.5, 3995621.5,     125.7,     125.7,       0.0);          ( 313371.5,
3995621.5,     125.7,     125.7,       0.0);
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                                                      *** DISCRETE CARTESIAN RECEPTORS ***
                                                    (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                    (METERS)

     ( 313391.5, 3995621.5,     125.7,     125.7,       0.0);          ( 313411.5,
3995621.5,     125.8,     125.8,       0.0);
     ( 313431.5, 3995621.5,     125.8,     125.8,       0.0);          ( 313451.5,
3995621.5,     125.8,     125.8,       0.0);
     ( 313471.5, 3995621.5,     125.8,     125.8,       0.0);          ( 313491.5,
3995621.5,     125.8,     125.8,       0.0);
     ( 313511.5, 3995621.5,     125.9,     125.9,       0.0);          ( 313531.5,
3995621.5,     125.9,     125.9,       0.0);
     ( 313551.5, 3995621.5,     125.9,     125.9,       0.0);          ( 313571.5,
3995621.5,     125.9,     125.9,       0.0);
     ( 313591.5, 3995621.5,     126.0,     126.0,       0.0);          ( 313611.5,
3995621.5,     126.0,     126.0,       0.0);
     ( 313631.5, 3995621.5,     126.0,     126.0,       0.0);          ( 313651.5,
3995621.5,     126.0,     126.0,       0.0);
     ( 313671.5, 3995621.5,     126.0,     126.0,       0.0);          ( 313691.5,
3995621.5,     126.0,     126.0,       0.0);
```

(313711.5, 3995621.5, 126.1, 126.1, 0.0); (313731.5,
3995621.5, 126.1, 126.1, 0.0);
(313751.5, 3995621.5, 126.1, 126.1, 0.0); (313771.5,
3995621.5, 126.1, 126.1, 0.0);
(313791.5, 3995621.5, 126.1, 126.1, 0.0); (313811.5,
3995621.5, 126.1, 126.1, 0.0);
(313831.5, 3995621.5, 126.2, 126.2, 0.0); (313851.5,
3995621.5, 126.2, 126.2, 0.0);
(313871.5, 3995621.5, 126.2, 126.2, 0.0); (313891.5,
3995621.5, 126.2, 126.2, 0.0);
(313911.5, 3995621.5, 126.3, 126.3, 0.0); (313931.5,
3995621.5, 126.3, 126.3, 0.0);
(313951.5, 3995621.5, 126.3, 126.3, 0.0); (313971.5,
3995621.5, 126.3, 126.3, 0.0);
(313991.5, 3995621.5, 126.4, 126.4, 0.0); (314011.5,
3995621.5, 126.4, 126.4, 0.0);
(314031.5, 3995621.5, 126.5, 126.5, 0.0); (314051.5,
3995621.5, 126.5, 126.5, 0.0);
(314071.5, 3995621.5, 126.5, 126.5, 0.0); (314091.5,
3995621.5, 126.5, 126.5, 0.0);
(314111.5, 3995621.5, 126.6, 126.6, 0.0); (314131.5,
3995621.5, 126.6, 126.6, 0.0);
(314151.5, 3995621.5, 126.7, 126.7, 0.0); (314171.5,
3995621.5, 126.7, 126.7, 0.0);
(314191.5, 3995621.5, 126.7, 126.7, 0.0); (314211.5,
3995621.5, 126.8, 126.8, 0.0);
(314231.5, 3995621.5, 126.8, 126.8, 0.0); (314251.5,
3995621.5, 126.8, 126.8, 0.0);
(314271.5, 3995621.5, 126.9, 126.9, 0.0); (313271.5,
3995641.5, 125.6, 125.6, 0.0);
(313291.5, 3995641.5, 125.6, 125.6, 0.0); (313311.5,
3995641.5, 125.6, 125.6, 0.0);
(313331.5, 3995641.5, 125.6, 125.6, 0.0); (313351.5,
3995641.5, 125.7, 125.7, 0.0);
(313371.5, 3995641.5, 125.7, 125.7, 0.0); (313391.5,
3995641.5, 125.7, 125.7, 0.0);
(313411.5, 3995641.5, 125.7, 125.7, 0.0); (313431.5,
3995641.5, 125.8, 125.8, 0.0);
(313451.5, 3995641.5, 125.8, 125.8, 0.0); (313471.5,
3995641.5, 125.8, 125.8, 0.0);
(313491.5, 3995641.5, 125.8, 125.8, 0.0); (313511.5,
3995641.5, 125.8, 125.8, 0.0);
(313531.5, 3995641.5, 125.9, 125.9, 0.0); (313551.5,
3995641.5, 125.9, 125.9, 0.0);
(313571.5, 3995641.5, 125.9, 125.9, 0.0); (313591.5,
3995641.5, 125.9, 125.9, 0.0);
(313611.5, 3995641.5, 125.9, 125.9, 0.0); (313631.5,
3995641.5, 126.0, 126.0, 0.0);
(313651.5, 3995641.5, 126.0, 126.0, 0.0); (313671.5,
3995641.5, 126.0, 126.0, 0.0);

(313691.5, 3995641.5, 126.0, 126.0, 0.0); (313711.5, 3995641.5, 126.0, 126.0, 0.0);
(313731.5, 3995641.5, 126.1, 126.1, 0.0); (313751.5, 3995641.5, 126.1, 126.1, 0.0);
(313771.5, 3995641.5, 126.1, 126.1, 0.0); (313791.5, 3995641.5, 126.1, 126.1, 0.0);
(313811.5, 3995641.5, 126.1, 126.1, 0.0); (313971.5, 3995641.5, 126.3, 126.3, 0.0);
(313991.5, 3995641.5, 126.3, 126.3, 0.0); (314011.5, 3995641.5, 126.4, 126.4, 0.0);
(314031.5, 3995641.5, 126.4, 126.4, 0.0); (314051.5, 3995641.5, 126.4, 126.4, 0.0);
(314071.5, 3995641.5, 126.5, 126.5, 0.0); (314091.5, 3995641.5, 126.5, 126.5, 0.0);
(314111.5, 3995641.5, 126.5, 126.5, 0.0); (314131.5, 3995641.5, 126.6, 126.6, 0.0);
(314151.5, 3995641.5, 126.6, 126.6, 0.0); (314171.5, 3995641.5, 126.7, 126.7, 0.0);
(314191.5, 3995641.5, 126.7, 126.7, 0.0); (314211.5, 3995641.5, 126.7, 126.7, 0.0);
(314231.5, 3995641.5, 126.8, 126.8, 0.0); (314251.5, 3995641.5, 126.8, 126.8, 0.0);
(314271.5, 3995641.5, 126.8, 126.8, 0.0); (313271.5, 3995661.5, 125.5, 125.5, 0.0);

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(313291.5, 3995661.5, 125.6, 125.6, 0.0); (313311.5, 3995661.5, 125.6, 125.6, 0.0);
(313331.5, 3995661.5, 125.6, 125.6, 0.0); (313351.5, 3995661.5, 125.6, 125.6, 0.0);
(313371.5, 3995661.5, 125.7, 125.7, 0.0); (313391.5, 3995661.5, 125.7, 125.7, 0.0);
(313411.5, 3995661.5, 125.7, 125.7, 0.0); (313431.5, 3995661.5, 125.7, 125.7, 0.0);
(313451.5, 3995661.5, 125.8, 125.8, 0.0); (313471.5, 3995661.5, 125.8, 125.8, 0.0);
(313491.5, 3995661.5, 125.8, 125.8, 0.0); (313511.5, 3995661.5, 125.8, 125.8, 0.0);
(313531.5, 3995661.5, 125.8, 125.8, 0.0); (313971.5, 3995661.5, 126.2, 126.2, 0.0);

(313991.5, 3995661.5, 126.3, 126.3, 0.0); (314011.5, 3995661.5, 126.3, 126.3, 0.0);
(314031.5, 3995661.5, 126.3, 126.3, 0.0); (314051.5, 3995661.5, 126.4, 126.4, 0.0);
(314071.5, 3995661.5, 126.4, 126.4, 0.0); (314091.5, 3995661.5, 126.5, 126.5, 0.0);
(314111.5, 3995661.5, 126.5, 126.5, 0.0); (314131.5, 3995661.5, 126.5, 126.5, 0.0);
(314151.5, 3995661.5, 126.6, 126.6, 0.0); (314171.5, 3995661.5, 126.6, 126.6, 0.0);
(314191.5, 3995661.5, 126.7, 126.7, 0.0); (314211.5, 3995661.5, 126.7, 126.7, 0.0);
(314231.5, 3995661.5, 126.7, 126.7, 0.0); (314251.5, 3995661.5, 126.8, 126.8, 0.0);
(314271.5, 3995661.5, 126.8, 126.8, 0.0); (313271.5, 3995681.5, 125.5, 125.5, 0.0);
(313291.5, 3995681.5, 125.5, 125.5, 0.0); (313311.5, 3995681.5, 125.6, 125.6, 0.0);
(313331.5, 3995681.5, 125.6, 125.6, 0.0); (313351.5, 3995681.5, 125.6, 125.6, 0.0);
(313371.5, 3995681.5, 125.6, 125.6, 0.0); (313391.5, 3995681.5, 125.7, 125.7, 0.0);
(313411.5, 3995681.5, 125.7, 125.7, 0.0); (313431.5, 3995681.5, 125.7, 125.7, 0.0);
(313451.5, 3995681.5, 125.7, 125.7, 0.0); (313471.5, 3995681.5, 125.8, 125.8, 0.0);
(313491.5, 3995681.5, 125.8, 125.8, 0.0); (313511.5, 3995681.5, 125.8, 125.8, 0.0);
(313531.5, 3995681.5, 125.8, 125.8, 0.0); (313971.5, 3995681.5, 126.2, 126.2, 0.0);
(313991.5, 3995681.5, 126.2, 126.2, 0.0); (314011.5, 3995681.5, 126.3, 126.3, 0.0);
(314031.5, 3995681.5, 126.3, 126.3, 0.0); (314051.5, 3995681.5, 126.3, 126.3, 0.0);
(314071.5, 3995681.5, 126.4, 126.4, 0.0); (314091.5, 3995681.5, 126.4, 126.4, 0.0);
(314111.5, 3995681.5, 126.5, 126.5, 0.0); (314131.5, 3995681.5, 126.5, 126.5, 0.0);
(314151.5, 3995681.5, 126.5, 126.5, 0.0); (314171.5, 3995681.5, 126.6, 126.6, 0.0);
(314191.5, 3995681.5, 126.6, 126.6, 0.0); (314211.5, 3995681.5, 126.7, 126.7, 0.0);
(314231.5, 3995681.5, 126.7, 126.7, 0.0); (314251.5, 3995681.5, 126.7, 126.7, 0.0);
(314271.5, 3995681.5, 126.8, 126.8, 0.0); (313271.5, 3995701.5, 125.5, 125.5, 0.0);
(313291.5, 3995701.5, 125.5, 125.5, 0.0); (313311.5, 3995701.5, 125.6, 125.6, 0.0);
(313331.5, 3995701.5, 125.6, 125.6, 0.0); (313351.5, 3995701.5, 125.6, 125.6, 0.0);

```
     ( 313371.5, 3995701.5,     125.6,     125.6,       0.0);         ( 313391.5,
3995701.5,     125.7,     125.7,       0.0);
     ( 313411.5, 3995701.5,     125.7,     125.7,       0.0);         ( 313431.5,
3995701.5,     125.7,     125.7,       0.0);
     ( 313451.5, 3995701.5,     125.7,     125.7,       0.0);         ( 313471.5,
3995701.5,     125.7,     125.7,       0.0);
     ( 313491.5, 3995701.5,     125.8,     125.8,       0.0);         ( 313511.5,
3995701.5,     125.8,     125.8,       0.0);
     ( 313531.5, 3995701.5,     125.8,     125.8,       0.0);         ( 313971.5,
3995701.5,     126.2,     126.2,       0.0);
     ( 313991.5, 3995701.5,     126.2,     126.2,       0.0);         ( 314011.5,
3995701.5,     126.2,     126.2,       0.0);
     ( 314031.5, 3995701.5,     126.3,     126.3,       0.0);         ( 314051.5,
3995701.5,     126.3,     126.3,       0.0);
     ( 314071.5, 3995701.5,     126.3,     126.3,       0.0);         ( 314091.5,
3995701.5,     126.4,     126.4,       0.0);
     ( 314111.5, 3995701.5,     126.4,     126.4,       0.0);         ( 314131.5,
3995701.5,     126.5,     126.5,       0.0);
     ( 314151.5, 3995701.5,     126.5,     126.5,       0.0);         ( 314171.5,
3995701.5,     126.5,     126.5,       0.0);
     ( 314191.5, 3995701.5,     126.6,     126.6,       0.0);         ( 314211.5,
3995701.5,     126.6,     126.6,       0.0);
     ( 314231.5, 3995701.5,     126.7,     126.7,       0.0);         ( 314251.5,
3995701.5,     126.7,     126.7,       0.0);
     ( 314271.5, 3995701.5,     126.8,     126.8,       0.0);         ( 313271.5,
3995721.5,     125.5,     125.5,       0.0);
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
     ( 313291.5, 3995721.5,     125.5,     125.5,       0.0);         ( 313311.5,
3995721.5,     125.5,     125.5,       0.0);
     ( 313331.5, 3995721.5,     125.6,     125.6,       0.0);         ( 313351.5,
3995721.5,     125.6,     125.6,       0.0);
     ( 313371.5, 3995721.5,     125.6,     125.6,       0.0);         ( 313391.5,
3995721.5,     125.6,     125.6,       0.0);
     ( 313411.5, 3995721.5,     125.7,     125.7,       0.0);         ( 313431.5,
3995721.5,     125.7,     125.7,       0.0);
     ( 313451.5, 3995721.5,     125.7,     125.7,       0.0);         ( 313471.5,
3995721.5,     125.7,     125.7,       0.0);
     ( 313491.5, 3995721.5,     125.7,     125.7,       0.0);         ( 313511.5,
3995721.5,     125.8,     125.8,       0.0);
```

(313531.5, 3995721.5, 125.8, 125.8, 0.0); (313971.5, 3995721.5, 126.1, 126.1, 0.0);
(313991.5, 3995721.5, 126.1, 126.1, 0.0); (314011.5, 3995721.5, 126.2, 126.2, 0.0);
(314031.5, 3995721.5, 126.2, 126.2, 0.0); (314051.5, 3995721.5, 126.2, 126.2, 0.0);
(314071.5, 3995721.5, 126.3, 126.3, 0.0); (314091.5, 3995721.5, 126.3, 126.3, 0.0);
(314111.5, 3995721.5, 126.4, 126.4, 0.0); (314131.5, 3995721.5, 126.4, 126.4, 0.0);
(314151.5, 3995721.5, 126.5, 126.5, 0.0); (314171.5, 3995721.5, 126.5, 126.5, 0.0);
(314191.5, 3995721.5, 126.5, 126.5, 0.0); (314211.5, 3995721.5, 126.6, 126.6, 0.0);
(314231.5, 3995721.5, 126.6, 126.6, 0.0); (314251.5, 3995721.5, 126.7, 126.7, 0.0);
(314271.5, 3995721.5, 126.7, 126.7, 0.0); (313271.5, 3995741.5, 125.5, 125.5, 0.0);
(313291.5, 3995741.5, 125.5, 125.5, 0.0); (313311.5, 3995741.5, 125.5, 125.5, 0.0);
(313331.5, 3995741.5, 125.5, 125.5, 0.0); (313351.5, 3995741.5, 125.6, 125.6, 0.0);
(313371.5, 3995741.5, 125.6, 125.6, 0.0); (313391.5, 3995741.5, 125.6, 125.6, 0.0);
(313411.5, 3995741.5, 125.7, 125.7, 0.0); (313431.5, 3995741.5, 125.7, 125.7, 0.0);
(313451.5, 3995741.5, 125.7, 125.7, 0.0); (313471.5, 3995741.5, 125.7, 125.7, 0.0);
(313491.5, 3995741.5, 125.7, 125.7, 0.0); (313511.5, 3995741.5, 125.7, 125.7, 0.0);
(313531.5, 3995741.5, 125.8, 125.8, 0.0); (313971.5, 3995741.5, 126.1, 126.1, 0.0);
(313991.5, 3995741.5, 126.1, 126.1, 0.0); (314011.5, 3995741.5, 126.1, 126.1, 0.0);
(314031.5, 3995741.5, 126.2, 126.2, 0.0); (314051.5, 3995741.5, 126.2, 126.2, 0.0);
(314071.5, 3995741.5, 126.2, 126.2, 0.0); (314091.5, 3995741.5, 126.3, 126.3, 0.0);
(314111.5, 3995741.5, 126.3, 126.3, 0.0); (314131.5, 3995741.5, 126.4, 126.4, 0.0);
(314151.5, 3995741.5, 126.4, 126.4, 0.0); (314171.5, 3995741.5, 126.5, 126.5, 0.0);
(314191.5, 3995741.5, 126.5, 126.5, 0.0); (314211.5, 3995741.5, 126.6, 126.6, 0.0);
(314231.5, 3995741.5, 126.6, 126.6, 0.0); (314251.5, 3995741.5, 126.6, 126.6, 0.0);
(314271.5, 3995741.5, 126.7, 126.7, 0.0); (313271.5, 3995761.5, 125.5, 125.5, 0.0);
(313291.5, 3995761.5, 125.5, 125.5, 0.0); (313311.5, 3995761.5, 125.5, 125.5, 0.0);

```
     ( 313331.5, 3995761.5,     125.5,     125.5,       0.0);         ( 313351.5,
3995761.5,     125.6,     125.6,       0.0);
     ( 313371.5, 3995761.5,     125.6,     125.6,       0.0);         ( 313391.5,
3995761.5,     125.6,     125.6,       0.0);
     ( 313411.5, 3995761.5,     125.7,     125.7,       0.0);         ( 313431.5,
3995761.5,     125.7,     125.7,       0.0);
     ( 313451.5, 3995761.5,     125.7,     125.7,       0.0);         ( 313471.5,
3995761.5,     125.7,     125.7,       0.0);
     ( 313491.5, 3995761.5,     125.7,     125.7,       0.0);         ( 313511.5,
3995761.5,     125.7,     125.7,       0.0);
     ( 313531.5, 3995761.5,     125.7,     125.7,       0.0);         ( 313971.5,
3995761.5,     126.0,     126.0,       0.0);
     ( 313991.5, 3995761.5,     126.1,     126.1,       0.0);         ( 314011.5,
3995761.5,     126.1,     126.1,       0.0);
     ( 314031.5, 3995761.5,     126.1,     126.1,       0.0);         ( 314051.5,
3995761.5,     126.2,     126.2,       0.0);
     ( 314071.5, 3995761.5,     126.2,     126.2,       0.0);         ( 314091.5,
3995761.5,     126.2,     126.2,       0.0);
     ( 314111.5, 3995761.5,     126.3,     126.3,       0.0);         ( 314131.5,
3995761.5,     126.3,     126.3,       0.0);
     ( 314151.5, 3995761.5,     126.4,     126.4,       0.0);         ( 314171.5,
3995761.5,     126.4,     126.4,       0.0);
     ( 314191.5, 3995761.5,     126.5,     126.5,       0.0);         ( 314211.5,
3995761.5,     126.5,     126.5,       0.0);
     ( 314231.5, 3995761.5,     126.6,     126.6,       0.0);         ( 314251.5,
3995761.5,     126.6,     126.6,       0.0);
     ( 314271.5, 3995761.5,     126.7,     126.7,       0.0);         ( 313271.5,
3995781.5,     125.4,     125.4,       0.0);
```

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                                                     *** DISCRETE CARTESIAN RECEPTORS ***
                                                   (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                   (METERS)

     ( 313291.5, 3995781.5,     125.5,     125.5,       0.0);         ( 313311.5,
3995781.5,     125.5,     125.5,       0.0);
     ( 313331.5, 3995781.5,     125.5,     125.5,       0.0);         ( 313351.5,
3995781.5,     125.6,     125.6,       0.0);
     ( 313371.5, 3995781.5,     125.6,     125.6,       0.0);         ( 313391.5,
3995781.5,     125.6,     125.6,       0.0);
     ( 313411.5, 3995781.5,     125.6,     125.6,       0.0);         ( 313431.5,
3995781.5,     125.7,     125.7,       0.0);
     ( 313451.5, 3995781.5,     125.7,     125.7,       0.0);         ( 313471.5,
3995781.5,     125.7,     125.7,       0.0);
```

(313491.5, 3995781.5,   125.7,   125.7,   0.0);   (313511.5,
3995781.5,   125.7,   125.7,   0.0);
(313531.5, 3995781.5,   125.7,   125.7,   0.0);   (313971.5,
3995781.5,   126.0,   126.0,   0.0);
(313991.5, 3995781.5,   126.0,   126.0,   0.0);   (314011.5,
3995781.5,   126.1,   126.1,   0.0);
(314031.5, 3995781.5,   126.1,   126.1,   0.0);   (314051.5,
3995781.5,   126.1,   126.1,   0.0);
(314071.5, 3995781.5,   126.2,   126.2,   0.0);   (314091.5,
3995781.5,   126.2,   126.2,   0.0);
(314111.5, 3995781.5,   126.3,   126.3,   0.0);   (314131.5,
3995781.5,   126.3,   126.3,   0.0);
(314151.5, 3995781.5,   126.3,   126.3,   0.0);   (314171.5,
3995781.5,   126.4,   126.4,   0.0);
(314191.5, 3995781.5,   126.5,   126.5,   0.0);   (314211.5,
3995781.5,   126.5,   126.5,   0.0);
(314231.5, 3995781.5,   126.5,   126.5,   0.0);   (314251.5,
3995781.5,   126.6,   126.6,   0.0);
(314271.5, 3995781.5,   126.6,   126.6,   0.0);   (313271.5,
3995801.5,   125.4,   125.4,   0.0);
(313291.5, 3995801.5,   125.5,   125.5,   0.0);   (313311.5,
3995801.5,   125.5,   125.5,   0.0);
(313331.5, 3995801.5,   125.5,   125.5,   0.0);   (313351.5,
3995801.5,   125.6,   125.6,   0.0);
(313371.5, 3995801.5,   125.6,   125.6,   0.0);   (313391.5,
3995801.5,   125.6,   125.6,   0.0);
(313411.5, 3995801.5,   125.6,   125.6,   0.0);   (313431.5,
3995801.5,   125.7,   125.7,   0.0);
(313451.5, 3995801.5,   125.7,   125.7,   0.0);   (313471.5,
3995801.5,   125.7,   125.7,   0.0);
(313491.5, 3995801.5,   125.7,   125.7,   0.0);   (313511.5,
3995801.5,   125.7,   125.7,   0.0);
(313531.5, 3995801.5,   125.7,   125.7,   0.0);   (313971.5,
3995801.5,   126.0,   126.0,   0.0);
(313991.5, 3995801.5,   126.0,   126.0,   0.0);   (314011.5,
3995801.5,   126.0,   126.0,   0.0);
(314031.5, 3995801.5,   126.1,   126.1,   0.0);   (314051.5,
3995801.5,   126.1,   126.1,   0.0);
(314071.5, 3995801.5,   126.1,   126.1,   0.0);   (314091.5,
3995801.5,   126.2,   126.2,   0.0);
(314111.5, 3995801.5,   126.2,   126.2,   0.0);   (314131.5,
3995801.5,   126.3,   126.3,   0.0);
(314151.5, 3995801.5,   126.3,   126.3,   0.0);   (314171.5,
3995801.5,   126.4,   126.4,   0.0);
(314191.5, 3995801.5,   126.4,   126.4,   0.0);   (314211.5,
3995801.5,   126.5,   126.5,   0.0);
(314231.5, 3995801.5,   126.5,   126.5,   0.0);   (314251.5,
3995801.5,   126.5,   126.5,   0.0);
(314271.5, 3995801.5,   126.6,   126.6,   0.0);   (313271.5,
3995821.5,   125.4,   125.4,   0.0);

```
     ( 313291.5, 3995821.5,     125.5,     125.5,       0.0);         ( 313311.5,
3995821.5,     125.5,     125.5,       0.0);
     ( 313331.5, 3995821.5,     125.5,     125.5,       0.0);         ( 313351.5,
3995821.5,     125.5,     125.5,       0.0);
     ( 313371.5, 3995821.5,     125.6,     125.6,       0.0);         ( 313391.5,
3995821.5,     125.6,     125.6,       0.0);
     ( 313411.5, 3995821.5,     125.6,     125.6,       0.0);         ( 313431.5,
3995821.5,     125.6,     125.6,       0.0);
     ( 313451.5, 3995821.5,     125.7,     125.7,       0.0);         ( 313471.5,
3995821.5,     125.7,     125.7,       0.0);
     ( 313491.5, 3995821.5,     125.7,     125.7,       0.0);         ( 313511.5,
3995821.5,     125.7,     125.7,       0.0);
     ( 313531.5, 3995821.5,     125.7,     125.7,       0.0);         ( 313971.5,
3995821.5,     125.9,     125.9,       0.0);
     ( 313991.5, 3995821.5,     126.0,     126.0,       0.0);         ( 314011.5,
3995821.5,     126.0,     126.0,       0.0);
     ( 314031.5, 3995821.5,     126.0,     126.0,       0.0);         ( 314051.5,
3995821.5,     126.1,     126.1,       0.0);
     ( 314071.5, 3995821.5,     126.1,     126.1,       0.0);         ( 314091.5,
3995821.5,     126.1,     126.1,       0.0);
     ( 314111.5, 3995821.5,     126.2,     126.2,       0.0);         ( 314131.5,
3995821.5,     126.2,     126.2,       0.0);
     ( 314151.5, 3995821.5,     126.3,     126.3,       0.0);         ( 314171.5,
3995821.5,     126.3,     126.3,       0.0);
     ( 314191.5, 3995821.5,     126.4,     126.4,       0.0);         ( 314211.5,
3995821.5,     126.4,     126.4,       0.0);
     ( 314231.5, 3995821.5,     126.5,     126.5,       0.0);         ( 314251.5,
3995821.5,     126.5,     126.5,       0.0);
     ( 314271.5, 3995821.5,     126.6,     126.6,       0.0);         ( 313271.5,
3995841.5,     125.4,     125.4,       0.0);
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                                             *** DISCRETE CARTESIAN RECEPTORS ***
                                           (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                          (METERS)

     ( 313291.5, 3995841.5,     125.4,     125.4,       0.0);         ( 313311.5,
3995841.5,     125.5,     125.5,       0.0);
     ( 313331.5, 3995841.5,     125.5,     125.5,       0.0);         ( 313351.5,
3995841.5,     125.5,     125.5,       0.0);
     ( 313371.5, 3995841.5,     125.6,     125.6,       0.0);         ( 313391.5,
3995841.5,     125.6,     125.6,       0.0);
     ( 313411.5, 3995841.5,     125.6,     125.6,       0.0);         ( 313431.5,
3995841.5,     125.6,     125.6,       0.0);
```

```
     ( 313451.5, 3995841.5,     125.7,     125.7,       0.0);          ( 313471.5,
3995841.5,     125.7,     125.7,       0.0);
     ( 313491.5, 3995841.5,     125.7,     125.7,       0.0);          ( 313511.5,
3995841.5,     125.7,     125.7,       0.0);
     ( 313531.5, 3995841.5,     125.7,     125.7,       0.0);          ( 313971.5,
3995841.5,     125.9,     125.9,       0.0);
     ( 313991.5, 3995841.5,     125.9,     125.9,       0.0);          ( 314011.5,
3995841.5,     126.0,     126.0,       0.0);
     ( 314031.5, 3995841.5,     126.0,     126.0,       0.0);          ( 314051.5,
3995841.5,     126.0,     126.0,       0.0);
     ( 314071.5, 3995841.5,     126.1,     126.1,       0.0);          ( 314091.5,
3995841.5,     126.1,     126.1,       0.0);
     ( 314111.5, 3995841.5,     126.2,     126.2,       0.0);          ( 314131.5,
3995841.5,     126.2,     126.2,       0.0);
     ( 314151.5, 3995841.5,     126.3,     126.3,       0.0);          ( 314171.5,
3995841.5,     126.3,     126.3,       0.0);
     ( 314191.5, 3995841.5,     126.4,     126.4,       0.0);          ( 314211.5,
3995841.5,     126.4,     126.4,       0.0);
     ( 314231.5, 3995841.5,     126.5,     126.5,       0.0);          ( 314251.5,
3995841.5,     126.5,     126.5,       0.0);
     ( 314271.5, 3995841.5,     126.5,     126.5,       0.0);          ( 313271.5,
3995861.5,     125.4,     125.4,       0.0);
     ( 313291.5, 3995861.5,     125.4,     125.4,       0.0);          ( 313311.5,
3995861.5,     125.5,     125.5,       0.0);
     ( 313331.5, 3995861.5,     125.5,     125.5,       0.0);          ( 313351.5,
3995861.5,     125.5,     125.5,       0.0);
     ( 313371.5, 3995861.5,     125.6,     125.6,       0.0);          ( 313391.5,
3995861.5,     125.6,     125.6,       0.0);
     ( 313411.5, 3995861.5,     125.6,     125.6,       0.0);          ( 313431.5,
3995861.5,     125.6,     125.6,       0.0);
     ( 313451.5, 3995861.5,     125.7,     125.7,       0.0);          ( 313471.5,
3995861.5,     125.7,     125.7,       0.0);
     ( 313491.5, 3995861.5,     125.7,     125.7,       0.0);          ( 313511.5,
3995861.5,     125.7,     125.7,       0.0);
     ( 313531.5, 3995861.5,     125.7,     125.7,       0.0);          ( 313991.5,
3995861.5,     125.9,     125.9,       0.0);
     ( 314011.5, 3995861.5,     125.9,     125.9,       0.0);          ( 314031.5,
3995861.5,     126.0,     126.0,       0.0);
     ( 314051.5, 3995861.5,     126.0,     126.0,       0.0);          ( 314071.5,
3995861.5,     126.0,     126.0,       0.0);
     ( 314091.5, 3995861.5,     126.1,     126.1,       0.0);          ( 314111.5,
3995861.5,     126.1,     126.1,       0.0);
     ( 314131.5, 3995861.5,     126.2,     126.2,       0.0);          ( 314151.5,
3995861.5,     126.2,     126.2,       0.0);
     ( 314171.5, 3995861.5,     126.3,     126.3,       0.0);          ( 314191.5,
3995861.5,     126.3,     126.3,       0.0);
     ( 314211.5, 3995861.5,     126.4,     126.4,       0.0);          ( 314231.5,
3995861.5,     126.4,     126.4,       0.0);
     ( 314251.5, 3995861.5,     126.5,     126.5,       0.0);          ( 314271.5,
3995861.5,     126.5,     126.5,       0.0);
```

(313271.5, 3995881.5,   125.4,   125.4,   0.0);   (313291.5,
3995881.5,   125.4,   125.4,   0.0);
(313311.5, 3995881.5,   125.5,   125.5,   0.0);   (313331.5,
3995881.5,   125.5,   125.5,   0.0);
(313351.5, 3995881.5,   125.5,   125.5,   0.0);   (313371.5,
3995881.5,   125.6,   125.6,   0.0);
(313391.5, 3995881.5,   125.6,   125.6,   0.0);   (313411.5,
3995881.5,   125.6,   125.6,   0.0);
(313431.5, 3995881.5,   125.6,   125.6,   0.0);   (313451.5,
3995881.5,   125.7,   125.7,   0.0);
(313471.5, 3995881.5,   125.7,   125.7,   0.0);   (313491.5,
3995881.5,   125.7,   125.7,   0.0);
(313511.5, 3995881.5,   125.7,   125.7,   0.0);   (313531.5,
3995881.5,   125.7,   125.7,   0.0);
(313991.5, 3995881.5,   125.8,   125.8,   0.0);   (314011.5,
3995881.5,   125.9,   125.9,   0.0);
(314031.5, 3995881.5,   125.9,   125.9,   0.0);   (314051.5,
3995881.5,   126.0,   126.0,   0.0);
(314071.5, 3995881.5,   126.0,   126.0,   0.0);   (314091.5,
3995881.5,   126.1,   126.1,   0.0);
(314111.5, 3995881.5,   126.1,   126.1,   0.0);   (314131.5,
3995881.5,   126.2,   126.2,   0.0);
(314151.5, 3995881.5,   126.2,   126.2,   0.0);   (314171.5,
3995881.5,   126.2,   126.2,   0.0);
(314191.5, 3995881.5,   126.3,   126.3,   0.0);   (314211.5,
3995881.5,   126.3,   126.3,   0.0);
(314231.5, 3995881.5,   126.4,   126.4,   0.0);   (314251.5,
3995881.5,   126.4,   126.4,   0.0);
(314271.5, 3995881.5,   126.5,   126.5,   0.0);   (313291.5,
3995901.5,   125.4,   125.4,   0.0);
(313311.5, 3995901.5,   125.5,   125.5,   0.0);   (313331.5,
3995901.5,   125.5,   125.5,   0.0);

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(313351.5, 3995901.5,   125.5,   125.5,   0.0);   (313371.5,
3995901.5,   125.6,   125.6,   0.0);
(313391.5, 3995901.5,   125.6,   125.6,   0.0);   (313411.5,
3995901.5,   125.6,   125.6,   0.0);
(313431.5, 3995901.5,   125.6,   125.6,   0.0);   (313451.5,
3995901.5,   125.7,   125.7,   0.0);

(313471.5, 3995901.5, 125.7, 125.7, 0.0); (313491.5,
3995901.5, 125.7, 125.7, 0.0);
(313511.5, 3995901.5, 125.7, 125.7, 0.0); (313531.5,
3995901.5, 125.7, 125.7, 0.0);
(313991.5, 3995901.5, 125.8, 125.8, 0.0); (314011.5,
3995901.5, 125.9, 125.9, 0.0);
(314031.5, 3995901.5, 125.9, 125.9, 0.0); (314051.5,
3995901.5, 126.0, 126.0, 0.0);
(314071.5, 3995901.5, 126.0, 126.0, 0.0); (314091.5,
3995901.5, 126.0, 126.0, 0.0);
(314111.5, 3995901.5, 126.1, 126.1, 0.0); (314131.5,
3995901.5, 126.1, 126.1, 0.0);
(314151.5, 3995901.5, 126.2, 126.2, 0.0); (314171.5,
3995901.5, 126.2, 126.2, 0.0);
(314191.5, 3995901.5, 126.3, 126.3, 0.0); (314211.5,
3995901.5, 126.3, 126.3, 0.0);
(314231.5, 3995901.5, 126.3, 126.3, 0.0); (314251.5,
3995901.5, 126.4, 126.4, 0.0);
(314271.5, 3995901.5, 126.4, 126.4, 0.0); (313311.5,
3995921.5, 125.5, 125.5, 0.0);
(313331.5, 3995921.5, 125.5, 125.5, 0.0); (313351.5,
3995921.5, 125.5, 125.5, 0.0);
(313371.5, 3995921.5, 125.6, 125.6, 0.0); (313391.5,
3995921.5, 125.6, 125.6, 0.0);
(313411.5, 3995921.5, 125.6, 125.6, 0.0); (313431.5,
3995921.5, 125.6, 125.6, 0.0);
(313451.5, 3995921.5, 125.7, 125.7, 0.0); (313471.5,
3995921.5, 125.7, 125.7, 0.0);
(313491.5, 3995921.5, 125.7, 125.7, 0.0); (313511.5,
3995921.5, 125.7, 125.7, 0.0);
(313531.5, 3995921.5, 125.7, 125.7, 0.0); (313991.5,
3995921.5, 125.8, 125.8, 0.0);
(314011.5, 3995921.5, 125.8, 125.8, 0.0); (314031.5,
3995921.5, 125.9, 125.9, 0.0);
(314051.5, 3995921.5, 125.9, 125.9, 0.0); (314071.5,
3995921.5, 126.0, 126.0, 0.0);
(314091.5, 3995921.5, 126.0, 126.0, 0.0); (314111.5,
3995921.5, 126.1, 126.1, 0.0);
(314131.5, 3995921.5, 126.1, 126.1, 0.0); (314151.5,
3995921.5, 126.1, 126.1, 0.0);
(314171.5, 3995921.5, 126.2, 126.2, 0.0); (314191.5,
3995921.5, 126.2, 126.2, 0.0);
(314211.5, 3995921.5, 126.3, 126.3, 0.0); (314231.5,
3995921.5, 126.3, 126.3, 0.0);
(314251.5, 3995921.5, 126.3, 126.3, 0.0); (314271.5,
3995921.5, 126.4, 126.4, 0.0);
(313331.5, 3995941.5, 125.5, 125.5, 0.0); (313351.5,
3995941.5, 125.5, 125.5, 0.0);
(313371.5, 3995941.5, 125.5, 125.5, 0.0); (313391.5,
3995941.5, 125.6, 125.6, 0.0);

```
     ( 313411.5, 3995941.5,     125.6,     125.6,       0.0);         ( 313431.5,
3995941.5,     125.6,     125.6,       0.0);
     ( 313451.5, 3995941.5,     125.7,     125.7,       0.0);         ( 313471.5,
3995941.5,     125.7,     125.7,       0.0);
     ( 313491.5, 3995941.5,     125.7,     125.7,       0.0);         ( 313511.5,
3995941.5,     125.7,     125.7,       0.0);
     ( 313531.5, 3995941.5,     125.7,     125.7,       0.0);         ( 313991.5,
3995941.5,     125.8,     125.8,       0.0);
     ( 314011.5, 3995941.5,     125.8,     125.8,       0.0);         ( 314031.5,
3995941.5,     125.9,     125.9,       0.0);
     ( 314051.5, 3995941.5,     125.9,     125.9,       0.0);         ( 314071.5,
3995941.5,     126.0,     126.0,       0.0);
     ( 314091.5, 3995941.5,     126.0,     126.0,       0.0);         ( 314111.5,
3995941.5,     126.0,     126.0,       0.0);
     ( 314131.5, 3995941.5,     126.1,     126.1,       0.0);         ( 314151.5,
3995941.5,     126.1,     126.1,       0.0);
     ( 314171.5, 3995941.5,     126.2,     126.2,       0.0);         ( 314191.5,
3995941.5,     126.2,     126.2,       0.0);
     ( 314211.5, 3995941.5,     126.2,     126.2,       0.0);         ( 314231.5,
3995941.5,     126.3,     126.3,       0.0);
     ( 314251.5, 3995941.5,     126.3,     126.3,       0.0);         ( 314271.5,
3995941.5,     126.4,     126.4,       0.0);
     ( 313351.5, 3995961.5,     125.5,     125.5,       0.0);         ( 313371.5,
3995961.5,     125.5,     125.5,       0.0);
     ( 313391.5, 3995961.5,     125.6,     125.6,       0.0);         ( 313411.5,
3995961.5,     125.6,     125.6,       0.0);
     ( 313431.5, 3995961.5,     125.6,     125.6,       0.0);         ( 313451.5,
3995961.5,     125.7,     125.7,       0.0);
     ( 313471.5, 3995961.5,     125.7,     125.7,       0.0);         ( 313491.5,
3995961.5,     125.7,     125.7,       0.0);
     ( 313511.5, 3995961.5,     125.8,     125.8,       0.0);         ( 313531.5,
3995961.5,     125.8,     125.8,       0.0);
     ( 313991.5, 3995961.5,     125.8,     125.8,       0.0);         ( 314011.5,
3995961.5,     125.8,     125.8,       0.0);
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                                                      *** DISCRETE CARTESIAN RECEPTORS ***
                                                   (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                    (METERS)

     ( 314031.5, 3995961.5,     125.8,     125.8,       0.0);         ( 314051.5,
3995961.5,     125.9,     125.9,       0.0);
     ( 314071.5, 3995961.5,     125.9,     125.9,       0.0);         ( 314091.5,
3995961.5,     126.0,     126.0,       0.0);
```

(314111.5, 3995961.5, 126.0, 126.0, 0.0); (314131.5, 3995961.5, 126.1, 126.1, 0.0);
(314151.5, 3995961.5, 126.1, 126.1, 0.0); (314171.5, 3995961.5, 126.1, 126.1, 0.0);
(314191.5, 3995961.5, 126.2, 126.2, 0.0); (314211.5, 3995961.5, 126.2, 126.2, 0.0);
(314231.5, 3995961.5, 126.2, 126.2, 0.0); (314251.5, 3995961.5, 126.3, 126.3, 0.0);
(314271.5, 3995961.5, 126.3, 126.3, 0.0); (313371.5, 3995981.5, 125.5, 125.5, 0.0);
(313391.5, 3995981.5, 125.6, 125.6, 0.0); (313411.5, 3995981.5, 125.6, 125.6, 0.0);
(313431.5, 3995981.5, 125.6, 125.6, 0.0); (313451.5, 3995981.5, 125.7, 125.7, 0.0);
(313471.5, 3995981.5, 125.7, 125.7, 0.0); (313491.5, 3995981.5, 125.7, 125.7, 0.0);
(313511.5, 3995981.5, 125.8, 125.8, 0.0); (313531.5, 3995981.5, 125.8, 125.8, 0.0);
(313991.5, 3995981.5, 125.8, 125.8, 0.0); (314011.5, 3995981.5, 125.8, 125.8, 0.0);
(314031.5, 3995981.5, 125.8, 125.8, 0.0); (314051.5, 3995981.5, 125.9, 125.9, 0.0);
(314071.5, 3995981.5, 125.9, 125.9, 0.0); (314091.5, 3995981.5, 126.0, 126.0, 0.0);
(314111.5, 3995981.5, 126.0, 126.0, 0.0); (314131.5, 3995981.5, 126.0, 126.0, 0.0);
(314151.5, 3995981.5, 126.1, 126.1, 0.0); (314171.5, 3995981.5, 126.1, 126.1, 0.0);
(314191.5, 3995981.5, 126.2, 126.2, 0.0); (314211.5, 3995981.5, 126.2, 126.2, 0.0);
(314231.5, 3995981.5, 126.2, 126.2, 0.0); (314251.5, 3995981.5, 126.3, 126.3, 0.0);
(314271.5, 3995981.5, 126.3, 126.3, 0.0); (313391.5, 3996001.5, 125.6, 125.6, 0.0);
(313411.5, 3996001.5, 125.6, 125.6, 0.0); (313431.5, 3996001.5, 125.6, 125.6, 0.0);
(313451.5, 3996001.5, 125.7, 125.7, 0.0); (313471.5, 3996001.5, 125.7, 125.7, 0.0);
(313491.5, 3996001.5, 125.7, 125.7, 0.0); (313511.5, 3996001.5, 125.8, 125.8, 0.0);
(313531.5, 3996001.5, 125.8, 125.8, 0.0); (313991.5, 3996001.5, 125.8, 125.8, 0.0);
(314011.5, 3996001.5, 125.8, 125.8, 0.0); (314031.5, 3996001.5, 125.8, 125.8, 0.0);
(314051.5, 3996001.5, 125.9, 125.9, 0.0); (314071.5, 3996001.5, 125.9, 125.9, 0.0);
(314091.5, 3996001.5, 126.0, 126.0, 0.0); (314111.5, 3996001.5, 126.0, 126.0, 0.0);
(314131.5, 3996001.5, 126.0, 126.0, 0.0); (314151.5, 3996001.5, 126.1, 126.1, 0.0);

```
     ( 314171.5, 3996001.5,     126.1,     126.1,       0.0);         ( 314191.5,
3996001.5,     126.1,     126.1,       0.0);
     ( 314211.5, 3996001.5,     126.2,     126.2,       0.0);         ( 314231.5,
3996001.5,     126.2,     126.2,       0.0);
     ( 314251.5, 3996001.5,     126.2,     126.2,       0.0);         ( 314271.5,
3996001.5,     126.3,     126.3,       0.0);
     ( 313411.5, 3996021.5,     125.6,     125.6,       0.0);         ( 313431.5,
3996021.5,     125.6,     125.6,       0.0);
     ( 313451.5, 3996021.5,     125.7,     125.7,       0.0);         ( 313471.5,
3996021.5,     125.7,     125.7,       0.0);
     ( 313491.5, 3996021.5,     125.7,     125.7,       0.0);         ( 313511.5,
3996021.5,     125.8,     125.8,       0.0);
     ( 313531.5, 3996021.5,     125.8,     125.8,       0.0);         ( 313991.5,
3996021.5,     125.7,     125.7,       0.0);
     ( 314011.5, 3996021.5,     125.8,     125.8,       0.0);         ( 314031.5,
3996021.5,     125.8,     125.8,       0.0);
     ( 314051.5, 3996021.5,     125.8,     125.8,       0.0);         ( 314071.5,
3996021.5,     125.9,     125.9,       0.0);
     ( 314091.5, 3996021.5,     125.9,     125.9,       0.0);         ( 314111.5,
3996021.5,     126.0,     126.0,       0.0);
     ( 314131.5, 3996021.5,     126.0,     126.0,       0.0);         ( 314151.5,
3996021.5,     126.0,     126.0,       0.0);
     ( 314171.5, 3996021.5,     126.1,     126.1,       0.0);         ( 314191.5,
3996021.5,     126.1,     126.1,       0.0);
     ( 314211.5, 3996021.5,     126.1,     126.1,       0.0);         ( 314231.5,
3996021.5,     126.2,     126.2,       0.0);
     ( 314251.5, 3996021.5,     126.2,     126.2,       0.0);         ( 314271.5,
3996021.5,     126.3,     126.3,       0.0);
     ( 313431.5, 3996041.5,     125.6,     125.6,       0.0);         ( 313451.5,
3996041.5,     125.7,     125.7,       0.0);
     ( 313471.5, 3996041.5,     125.7,     125.7,       0.0);         ( 313491.5,
3996041.5,     125.7,     125.7,       0.0);
     ( 313511.5, 3996041.5,     125.8,     125.8,       0.0);         ( 313531.5,
3996041.5,     125.8,     125.8,       0.0);
     ( 313991.5, 3996041.5,     125.7,     125.7,       0.0);         ( 314011.5,
3996041.5,     125.8,     125.8,       0.0);
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                                                     *** DISCRETE CARTESIAN RECEPTORS ***
                                                   (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                   (METERS)

     ( 314031.5, 3996041.5,     125.8,     125.8,       0.0);         ( 314051.5,
3996041.5,     125.8,     125.8,       0.0);
```

```
     ( 314071.5, 3996041.5,     125.9,     125.9,       0.0);          ( 314091.5,
3996041.5,     125.9,     125.9,       0.0);
     ( 314111.5, 3996041.5,     126.0,     126.0,       0.0);          ( 314131.5,
3996041.5,     126.0,     126.0,       0.0);
     ( 314151.5, 3996041.5,     126.0,     126.0,       0.0);          ( 314171.5,
3996041.5,     126.0,     126.0,       0.0);
     ( 314191.5, 3996041.5,     126.1,     126.1,       0.0);          ( 314211.5,
3996041.5,     126.1,     126.1,       0.0);
     ( 314231.5, 3996041.5,     126.2,     126.2,       0.0);          ( 314251.5,
3996041.5,     126.2,     126.2,       0.0);
     ( 314271.5, 3996041.5,     126.2,     126.2,       0.0);          ( 313991.5,
3996061.5,     125.7,     125.7,       0.0);
     ( 314011.5, 3996061.5,     125.7,     125.7,       0.0);          ( 314031.5,
3996061.5,     125.8,     125.8,       0.0);
     ( 314051.5, 3996061.5,     125.8,     125.8,       0.0);          ( 314071.5,
3996061.5,     125.9,     125.9,       0.0);
     ( 314091.5, 3996061.5,     125.9,     125.9,       0.0);          ( 314111.5,
3996061.5,     125.9,     125.9,       0.0);
     ( 314131.5, 3996061.5,     126.0,     126.0,       0.0);          ( 314151.5,
3996061.5,     126.0,     126.0,       0.0);
     ( 314171.5, 3996061.5,     126.0,     126.0,       0.0);          ( 314191.5,
3996061.5,     126.1,     126.1,       0.0);
     ( 314211.5, 3996061.5,     126.1,     126.1,       0.0);          ( 314231.5,
3996061.5,     126.1,     126.1,       0.0);
     ( 314251.5, 3996061.5,     126.2,     126.2,       0.0);          ( 314271.5,
3996061.5,     126.2,     126.2,       0.0);
     ( 313991.5, 3996081.5,     125.7,     125.7,       0.0);          ( 314011.5,
3996081.5,     125.7,     125.7,       0.0);
     ( 314031.5, 3996081.5,     125.8,     125.8,       0.0);          ( 314051.5,
3996081.5,     125.8,     125.8,       0.0);
     ( 314071.5, 3996081.5,     125.8,     125.8,       0.0);          ( 314091.5,
3996081.5,     125.9,     125.9,       0.0);
     ( 314111.5, 3996081.5,     125.9,     125.9,       0.0);          ( 314131.5,
3996081.5,     126.0,     126.0,       0.0);
     ( 314151.5, 3996081.5,     126.0,     126.0,       0.0);          ( 314171.5,
3996081.5,     126.0,     126.0,       0.0);
     ( 314191.5, 3996081.5,     126.1,     126.1,       0.0);          ( 314211.5,
3996081.5,     126.1,     126.1,       0.0);
     ( 314231.5, 3996081.5,     126.1,     126.1,       0.0);          ( 314251.5,
3996081.5,     126.2,     126.2,       0.0);
     ( 314271.5, 3996081.5,     126.2,     126.2,       0.0);          ( 313991.5,
3996101.5,     125.7,     125.7,       0.0);
     ( 314011.5, 3996101.5,     125.7,     125.7,       0.0);          ( 314031.5,
3996101.5,     125.8,     125.8,       0.0);
     ( 314051.5, 3996101.5,     125.8,     125.8,       0.0);          ( 314071.5,
3996101.5,     125.8,     125.8,       0.0);
     ( 314091.5, 3996101.5,     125.9,     125.9,       0.0);          ( 314111.5,
3996101.5,     125.9,     125.9,       0.0);
     ( 314131.5, 3996101.5,     125.9,     125.9,       0.0);          ( 314151.5,
3996101.5,     126.0,     126.0,       0.0);
```

```
     ( 314171.5, 3996101.5,     126.0,     126.0,       0.0);          ( 314191.5,
3996101.5,     126.0,     126.0,       0.0);
     ( 314211.5, 3996101.5,     126.1,     126.1,       0.0);          ( 314231.5,
3996101.5,     126.1,     126.1,       0.0);
     ( 314251.5, 3996101.5,     126.1,     126.1,       0.0);          ( 314271.5,
3996101.5,     126.2,     126.2,       0.0);
     ( 313991.5, 3996121.5,     125.6,     125.6,       0.0);          ( 314011.5,
3996121.5,     125.7,     125.7,       0.0);
     ( 314031.5, 3996121.5,     125.7,     125.7,       0.0);          ( 314051.5,
3996121.5,     125.8,     125.8,       0.0);
     ( 314071.5, 3996121.5,     125.8,     125.8,       0.0);          ( 314091.5,
3996121.5,     125.8,     125.8,       0.0);
     ( 314111.5, 3996121.5,     125.9,     125.9,       0.0);          ( 314131.5,
3996121.5,     125.9,     125.9,       0.0);
     ( 314151.5, 3996121.5,     125.9,     125.9,       0.0);          ( 314171.5,
3996121.5,     126.0,     126.0,       0.0);
     ( 314191.5, 3996121.5,     126.0,     126.0,       0.0);          ( 314211.5,
3996121.5,     126.0,     126.0,       0.0);
     ( 314231.5, 3996121.5,     126.1,     126.1,       0.0);          ( 314251.5,
3996121.5,     126.1,     126.1,       0.0);
     ( 314271.5, 3996121.5,     126.1,     126.1,       0.0);          ( 313991.5,
3996141.5,     125.6,     125.6,       0.0);
     ( 314011.5, 3996141.5,     125.7,     125.7,       0.0);          ( 314031.5,
3996141.5,     125.7,     125.7,       0.0);
     ( 314051.5, 3996141.5,     125.7,     125.7,       0.0);          ( 314071.5,
3996141.5,     125.8,     125.8,       0.0);
     ( 314091.5, 3996141.5,     125.8,     125.8,       0.0);          ( 314111.5,
3996141.5,     125.8,     125.8,       0.0);
     ( 314131.5, 3996141.5,     125.9,     125.9,       0.0);          ( 314151.5,
3996141.5,     125.9,     125.9,       0.0);
     ( 314171.5, 3996141.5,     126.0,     126.0,       0.0);          ( 314191.5,
3996141.5,     126.0,     126.0,       0.0);
     ( 314211.5, 3996141.5,     126.0,     126.0,       0.0);          ( 314231.5,
3996141.5,     126.1,     126.1,       0.0);
     ( 314251.5, 3996141.5,     126.1,     126.1,       0.0);          ( 314271.5,
3996141.5,     126.1,     126.1,       0.0);
     ( 313991.5, 3996161.5,     125.6,     125.6,       0.0);          ( 314011.5,
3996161.5,     125.6,     125.6,       0.0);
```


*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(314031.5, 3996161.5,   125.7,   125.7,   0.0);   (314051.5,
3996161.5,   125.7,   125.7,   0.0);
(314071.5, 3996161.5,   125.8,   125.8,   0.0);   (314091.5,
3996161.5,   125.8,   125.8,   0.0);
(314111.5, 3996161.5,   125.8,   125.8,   0.0);   (314131.5,
3996161.5,   125.9,   125.9,   0.0);
(314151.5, 3996161.5,   125.9,   125.9,   0.0);   (314171.5,
3996161.5,   125.9,   125.9,   0.0);
(314191.5, 3996161.5,   126.0,   126.0,   0.0);   (314211.5,
3996161.5,   126.0,   126.0,   0.0);
(314231.5, 3996161.5,   126.0,   126.0,   0.0);   (314251.5,
3996161.5,   126.1,   126.1,   0.0);
(314271.5, 3996161.5,   126.1,   126.1,   0.0);   (313991.5,
3996181.5,   125.6,   125.6,   0.0);
(314011.5, 3996181.5,   125.6,   125.6,   0.0);   (314031.5,
3996181.5,   125.7,   125.7,   0.0);
(314051.5, 3996181.5,   125.7,   125.7,   0.0);   (314071.5,
3996181.5,   125.7,   125.7,   0.0);
(314091.5, 3996181.5,   125.8,   125.8,   0.0);   (314111.5,
3996181.5,   125.8,   125.8,   0.0);
(314131.5, 3996181.5,   125.8,   125.8,   0.0);   (314151.5,
3996181.5,   125.9,   125.9,   0.0);
(314171.5, 3996181.5,   125.9,   125.9,   0.0);   (314191.5,
3996181.5,   126.0,   126.0,   0.0);
(314211.5, 3996181.5,   126.0,   126.0,   0.0);   (314231.5,
3996181.5,   126.0,   126.0,   0.0);
(314251.5, 3996181.5,   126.0,   126.0,   0.0);   (314271.5,
3996181.5,   126.1,   126.1,   0.0);
(313991.5, 3996201.5,   125.6,   125.6,   0.0);   (314011.5,
3996201.5,   125.6,   125.6,   0.0);
(314031.5, 3996201.5,   125.6,   125.6,   0.0);   (314051.5,
3996201.5,   125.7,   125.7,   0.0);
(314071.5, 3996201.5,   125.7,   125.7,   0.0);   (314091.5,
3996201.5,   125.7,   125.7,   0.0);
(314111.5, 3996201.5,   125.8,   125.8,   0.0);   (314131.5,
3996201.5,   125.8,   125.8,   0.0);
(314151.5, 3996201.5,   125.8,   125.8,   0.0);   (314171.5,
3996201.5,   125.9,   125.9,   0.0);
(314191.5, 3996201.5,   125.9,   125.9,   0.0);   (314211.5,
3996201.5,   126.0,   126.0,   0.0);
(314231.5, 3996201.5,   126.0,   126.0,   0.0);   (314251.5,
3996201.5,   126.0,   126.0,   0.0);
(314271.5, 3996201.5,   126.1,   126.1,   0.0);   (313991.5,
3996221.5,   125.5,   125.5,   0.0);
(314011.5, 3996221.5,   125.6,   125.6,   0.0);   (314031.5,
3996221.5,   125.6,   125.6,   0.0);
(314051.5, 3996221.5,   125.6,   125.6,   0.0);   (314071.5,
3996221.5,   125.7,   125.7,   0.0);
(314091.5, 3996221.5,   125.7,   125.7,   0.0);   (314111.5,
3996221.5,   125.8,   125.8,   0.0);

(314131.5, 3996221.5, 125.8, 125.8, 0.0); (314151.5, 3996221.5, 125.8, 125.8, 0.0);
(314171.5, 3996221.5, 125.9, 125.9, 0.0); (314191.5, 3996221.5, 125.9, 125.9, 0.0);
(314211.5, 3996221.5, 125.9, 125.9, 0.0); (314231.5, 3996221.5, 126.0, 126.0, 0.0);
(314251.5, 3996221.5, 126.0, 126.0, 0.0); (314271.5, 3996221.5, 126.0, 126.0, 0.0);
(313991.5, 3996241.5, 125.5, 125.5, 0.0); (314011.5, 3996241.5, 125.6, 125.6, 0.0);
(314031.5, 3996241.5, 125.6, 125.6, 0.0); (314051.5, 3996241.5, 125.6, 125.6, 0.0);
(314071.5, 3996241.5, 125.7, 125.7, 0.0); (314091.5, 3996241.5, 125.7, 125.7, 0.0);
(314111.5, 3996241.5, 125.7, 125.7, 0.0); (314131.5, 3996241.5, 125.8, 125.8, 0.0);
(314151.5, 3996241.5, 125.8, 125.8, 0.0); (314171.5, 3996241.5, 125.8, 125.8, 0.0);
(314191.5, 3996241.5, 125.9, 125.9, 0.0); (314211.5, 3996241.5, 125.9, 125.9, 0.0);
(314231.5, 3996241.5, 125.9, 125.9, 0.0); (314251.5, 3996241.5, 126.0, 126.0, 0.0);
(314271.5, 3996241.5, 126.0, 126.0, 0.0); (313991.5, 3996261.5, 125.5, 125.5, 0.0);
(314011.5, 3996261.5, 125.5, 125.5, 0.0); (314031.5, 3996261.5, 125.6, 125.6, 0.0);
(314051.5, 3996261.5, 125.6, 125.6, 0.0); (314071.5, 3996261.5, 125.6, 125.6, 0.0);
(314091.5, 3996261.5, 125.7, 125.7, 0.0); (314111.5, 3996261.5, 125.7, 125.7, 0.0);
(314131.5, 3996261.5, 125.7, 125.7, 0.0); (314151.5, 3996261.5, 125.8, 125.8, 0.0);
(314171.5, 3996261.5, 125.8, 125.8, 0.0); (314191.5, 3996261.5, 125.8, 125.8, 0.0);
(314211.5, 3996261.5, 125.9, 125.9, 0.0); (314231.5, 3996261.5, 125.9, 125.9, 0.0);
(314251.5, 3996261.5, 126.0, 126.0, 0.0); (314271.5, 3996261.5, 126.0, 126.0, 0.0);
(313991.5, 3996281.5, 125.5, 125.5, 0.0); (314011.5, 3996281.5, 125.5, 125.5, 0.0);

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

```
     ( 314031.5, 3996281.5,     125.5,     125.5,       0.0);          ( 314051.5,
3996281.5,     125.6,     125.6,       0.0);
     ( 314071.5, 3996281.5,     125.6,     125.6,       0.0);          ( 314091.5,
3996281.5,     125.6,     125.6,       0.0);
     ( 314111.5, 3996281.5,     125.7,     125.7,       0.0);          ( 314131.5,
3996281.5,     125.7,     125.7,       0.0);
     ( 314151.5, 3996281.5,     125.8,     125.8,       0.0);          ( 314171.5,
3996281.5,     125.8,     125.8,       0.0);
     ( 314191.5, 3996281.5,     125.8,     125.8,       0.0);          ( 314211.5,
3996281.5,     125.9,     125.9,       0.0);
     ( 314231.5, 3996281.5,     125.9,     125.9,       0.0);          ( 314251.5,
3996281.5,     125.9,     125.9,       0.0);
     ( 314271.5, 3996281.5,     126.0,     126.0,       0.0);          ( 313811.5,
3996301.5,     125.2,     125.2,       0.0);
     ( 313831.5, 3996301.5,     125.2,     125.2,       0.0);          ( 313851.5,
3996301.5,     125.2,     125.2,       0.0);
     ( 313871.5, 3996301.5,     125.3,     125.3,       0.0);          ( 313891.5,
3996301.5,     125.3,     125.3,       0.0);
     ( 313911.5, 3996301.5,     125.3,     125.3,       0.0);          ( 313931.5,
3996301.5,     125.4,     125.4,       0.0);
     ( 313951.5, 3996301.5,     125.4,     125.4,       0.0);          ( 313971.5,
3996301.5,     125.4,     125.4,       0.0);
     ( 313991.5, 3996301.5,     125.5,     125.5,       0.0);          ( 314011.5,
3996301.5,     125.5,     125.5,       0.0);
     ( 314031.5, 3996301.5,     125.5,     125.5,       0.0);          ( 314051.5,
3996301.5,     125.6,     125.6,       0.0);
     ( 314071.5, 3996301.5,     125.6,     125.6,       0.0);          ( 314091.5,
3996301.5,     125.6,     125.6,       0.0);
     ( 314111.5, 3996301.5,     125.7,     125.7,       0.0);          ( 314131.5,
3996301.5,     125.7,     125.7,       0.0);
     ( 314151.5, 3996301.5,     125.7,     125.7,       0.0);          ( 314171.5,
3996301.5,     125.8,     125.8,       0.0);
     ( 314191.5, 3996301.5,     125.8,     125.8,       0.0);          ( 314211.5,
3996301.5,     125.8,     125.8,       0.0);
     ( 314231.5, 3996301.5,     125.9,     125.9,       0.0);          ( 314251.5,
3996301.5,     125.9,     125.9,       0.0);
     ( 314271.5, 3996301.5,     125.9,     125.9,       0.0);          ( 313811.5,
3996321.5,     125.2,     125.2,       0.0);
     ( 313831.5, 3996321.5,     125.2,     125.2,       0.0);          ( 313851.5,
3996321.5,     125.2,     125.2,       0.0);
     ( 313871.5, 3996321.5,     125.2,     125.2,       0.0);          ( 313891.5,
3996321.5,     125.3,     125.3,       0.0);
     ( 313911.5, 3996321.5,     125.3,     125.3,       0.0);          ( 313931.5,
3996321.5,     125.3,     125.3,       0.0);
     ( 313951.5, 3996321.5,     125.4,     125.4,       0.0);          ( 313971.5,
3996321.5,     125.4,     125.4,       0.0);
     ( 313991.5, 3996321.5,     125.4,     125.4,       0.0);          ( 314011.5,
3996321.5,     125.5,     125.5,       0.0);
```

```
     ( 314031.5, 3996321.5,     125.5,     125.5,       0.0);          ( 314051.5,
3996321.5,     125.5,     125.5,       0.0);
     ( 314071.5, 3996321.5,     125.6,     125.6,       0.0);          ( 314091.5,
3996321.5,     125.6,     125.6,       0.0);
     ( 314111.5, 3996321.5,     125.6,     125.6,       0.0);          ( 314131.5,
3996321.5,     125.7,     125.7,       0.0);
     ( 314151.5, 3996321.5,     125.7,     125.7,       0.0);          ( 314171.5,
3996321.5,     125.7,     125.7,       0.0);
     ( 314191.5, 3996321.5,     125.8,     125.8,       0.0);          ( 314211.5,
3996321.5,     125.8,     125.8,       0.0);
     ( 314231.5, 3996321.5,     125.8,     125.8,       0.0);          ( 314251.5,
3996321.5,     125.9,     125.9,       0.0);
     ( 314271.5, 3996321.5,     125.9,     125.9,       0.0);          ( 313811.5,
3996341.5,     125.1,     125.1,       0.0);
     ( 313831.5, 3996341.5,     125.2,     125.2,       0.0);          ( 313851.5,
3996341.5,     125.2,     125.2,       0.0);
     ( 313871.5, 3996341.5,     125.2,     125.2,       0.0);          ( 313891.5,
3996341.5,     125.3,     125.3,       0.0);
     ( 313911.5, 3996341.5,     125.3,     125.3,       0.0);          ( 313931.5,
3996341.5,     125.3,     125.3,       0.0);
     ( 313951.5, 3996341.5,     125.4,     125.4,       0.0);          ( 313971.5,
3996341.5,     125.4,     125.4,       0.0);
     ( 313991.5, 3996341.5,     125.4,     125.4,       0.0);          ( 314011.5,
3996341.5,     125.5,     125.5,       0.0);
     ( 314031.5, 3996341.5,     125.5,     125.5,       0.0);          ( 314051.5,
3996341.5,     125.5,     125.5,       0.0);
     ( 314071.5, 3996341.5,     125.5,     125.5,       0.0);          ( 314091.5,
3996341.5,     125.6,     125.6,       0.0);
     ( 314111.5, 3996341.5,     125.6,     125.6,       0.0);          ( 314131.5,
3996341.5,     125.6,     125.6,       0.0);
     ( 314151.5, 3996341.5,     125.7,     125.7,       0.0);          ( 314171.5,
3996341.5,     125.7,     125.7,       0.0);
     ( 314191.5, 3996341.5,     125.7,     125.7,       0.0);          ( 314211.5,
3996341.5,     125.8,     125.8,       0.0);
     ( 314231.5, 3996341.5,     125.8,     125.8,       0.0);          ( 314251.5,
3996341.5,     125.8,     125.8,       0.0);
     ( 314271.5, 3996341.5,     125.9,     125.9,       0.0);          ( 313811.5,
3996361.5,     125.1,     125.1,       0.0);
     ( 313831.5, 3996361.5,     125.1,     125.1,       0.0);          ( 313851.5,
3996361.5,     125.2,     125.2,       0.0);
     ( 313871.5, 3996361.5,     125.2,     125.2,       0.0);          ( 313891.5,
3996361.5,     125.2,     125.2,       0.0);
```

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(313911.5, 3996361.5, 125.3, 125.3, 0.0); (313931.5, 3996361.5, 125.3, 125.3, 0.0);
(313951.5, 3996361.5, 125.3, 125.3, 0.0); (313971.5, 3996361.5, 125.4, 125.4, 0.0);
(313991.5, 3996361.5, 125.4, 125.4, 0.0); (314011.5, 3996361.5, 125.4, 125.4, 0.0);
(314031.5, 3996361.5, 125.5, 125.5, 0.0); (314051.5, 3996361.5, 125.5, 125.5, 0.0);
(314071.5, 3996361.5, 125.5, 125.5, 0.0); (314091.5, 3996361.5, 125.6, 125.6, 0.0);
(314111.5, 3996361.5, 125.6, 125.6, 0.0); (314131.5, 3996361.5, 125.6, 125.6, 0.0);
(314151.5, 3996361.5, 125.6, 125.6, 0.0); (314171.5, 3996361.5, 125.7, 125.7, 0.0);
(314191.5, 3996361.5, 125.7, 125.7, 0.0); (314211.5, 3996361.5, 125.7, 125.7, 0.0);
(314231.5, 3996361.5, 125.8, 125.8, 0.0); (314251.5, 3996361.5, 125.8, 125.8, 0.0);
(314271.5, 3996361.5, 125.8, 125.8, 0.0); (313731.5, 3996381.5, 125.0, 125.0, 0.0);
(313751.5, 3996381.5, 125.0, 125.0, 0.0); (313771.5, 3996381.5, 125.0, 125.0, 0.0);
(313791.5, 3996381.5, 125.0, 125.0, 0.0); (313811.5, 3996381.5, 125.1, 125.1, 0.0);
(313831.5, 3996381.5, 125.1, 125.1, 0.0); (313851.5, 3996381.5, 125.1, 125.1, 0.0);
(313871.5, 3996381.5, 125.2, 125.2, 0.0); (313891.5, 3996381.5, 125.2, 125.2, 0.0);
(313911.5, 3996381.5, 125.2, 125.2, 0.0); (313931.5, 3996381.5, 125.3, 125.3, 0.0);
(313951.5, 3996381.5, 125.3, 125.3, 0.0); (313971.5, 3996381.5, 125.3, 125.3, 0.0);
(313991.5, 3996381.5, 125.4, 125.4, 0.0); (314011.5, 3996381.5, 125.4, 125.4, 0.0);
(314031.5, 3996381.5, 125.4, 125.4, 0.0); (314051.5, 3996381.5, 125.5, 125.5, 0.0);
(314071.5, 3996381.5, 125.5, 125.5, 0.0); (314091.5, 3996381.5, 125.5, 125.5, 0.0);
(314111.5, 3996381.5, 125.6, 125.6, 0.0); (314131.5, 3996381.5, 125.6, 125.6, 0.0);
(314151.5, 3996381.5, 125.6, 125.6, 0.0); (314171.5, 3996381.5, 125.6, 125.6, 0.0);
(314191.5, 3996381.5, 125.7, 125.7, 0.0); (314211.5, 3996381.5, 125.7, 125.7, 0.0);
(314231.5, 3996381.5, 125.8, 125.8, 0.0); (314251.5, 3996381.5, 125.8, 125.8, 0.0);

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     ( 314271.5, 3996381.5,     125.8,     125.8,       0.0);          ( 313731.5,
3996401.5,     125.0,     125.0,       0.0);
     ( 313751.5, 3996401.5,     125.0,     125.0,       0.0);          ( 313771.5,
3996401.5,     125.0,     125.0,       0.0);
     ( 313791.5, 3996401.5,     125.0,     125.0,       0.0);          ( 313811.5,
3996401.5,     125.0,     125.0,       0.0);
     ( 313831.5, 3996401.5,     125.1,     125.1,       0.0);          ( 313851.5,
3996401.5,     125.1,     125.1,       0.0);
     ( 313871.5, 3996401.5,     125.1,     125.1,       0.0);          ( 313891.5,
3996401.5,     125.2,     125.2,       0.0);
     ( 313911.5, 3996401.5,     125.2,     125.2,       0.0);          ( 313931.5,
3996401.5,     125.2,     125.2,       0.0);
     ( 313951.5, 3996401.5,     125.3,     125.3,       0.0);          ( 313971.5,
3996401.5,     125.3,     125.3,       0.0);
     ( 313991.5, 3996401.5,     125.3,     125.3,       0.0);          ( 314011.5,
3996401.5,     125.4,     125.4,       0.0);
     ( 314031.5, 3996401.5,     125.4,     125.4,       0.0);          ( 314051.5,
3996401.5,     125.4,     125.4,       0.0);
     ( 314071.5, 3996401.5,     125.5,     125.5,       0.0);          ( 314091.5,
3996401.5,     125.5,     125.5,       0.0);
     ( 314111.5, 3996401.5,     125.5,     125.5,       0.0);          ( 314131.5,
3996401.5,     125.6,     125.6,       0.0);
     ( 314151.5, 3996401.5,     125.6,     125.6,       0.0);          ( 314171.5,
3996401.5,     125.6,     125.6,       0.0);
     ( 314191.5, 3996401.5,     125.6,     125.6,       0.0);          ( 314211.5,
3996401.5,     125.7,     125.7,       0.0);
     ( 314231.5, 3996401.5,     125.7,     125.7,       0.0);          ( 314251.5,
3996401.5,     125.8,     125.8,       0.0);
     ( 314271.5, 3996401.5,     125.8,     125.8,       0.0);          ( 313731.5,
3996421.5,     124.9,     124.9,       0.0);
     ( 313751.5, 3996421.5,     124.9,     124.9,       0.0);          ( 313771.5,
3996421.5,     125.0,     125.0,       0.0);
     ( 313791.5, 3996421.5,     125.0,     125.0,       0.0);          ( 313811.5,
3996421.5,     125.0,     125.0,       0.0);
     ( 313831.5, 3996421.5,     125.1,     125.1,       0.0);          ( 313851.5,
3996421.5,     125.1,     125.1,       0.0);
     ( 313871.5, 3996421.5,     125.1,     125.1,       0.0);          ( 313891.5,
3996421.5,     125.1,     125.1,       0.0);
     ( 313911.5, 3996421.5,     125.2,     125.2,       0.0);          ( 313931.5,
3996421.5,     125.2,     125.2,       0.0);
     ( 313951.5, 3996421.5,     125.2,     125.2,       0.0);          ( 313971.5,
3996421.5,     125.3,     125.3,       0.0);
     ( 313991.5, 3996421.5,     125.3,     125.3,       0.0);          ( 314011.5,
3996421.5,     125.3,     125.3,       0.0);
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                                        *** DISCRETE CARTESIAN RECEPTORS ***
                                                      (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                      (METERS)

     ( 314031.5, 3996421.5,     125.4,     125.4,       0.0);          ( 314051.5,
3996421.5,     125.4,     125.4,       0.0);
     ( 314071.5, 3996421.5,     125.5,     125.5,       0.0);          ( 314091.5,
3996421.5,     125.5,     125.5,       0.0);
     ( 314111.5, 3996421.5,     125.5,     125.5,       0.0);          ( 314131.5,
3996421.5,     125.5,     125.5,       0.0);
     ( 314151.5, 3996421.5,     125.6,     125.6,       0.0);          ( 314171.5,
3996421.5,     125.6,     125.6,       0.0);
     ( 314191.5, 3996421.5,     125.6,     125.6,       0.0);          ( 314211.5,
3996421.5,     125.7,     125.7,       0.0);
     ( 314231.5, 3996421.5,     125.7,     125.7,       0.0);          ( 314251.5,
3996421.5,     125.7,     125.7,       0.0);
     ( 314271.5, 3996421.5,     125.8,     125.8,       0.0);          ( 313751.5,
3996441.5,     124.9,     124.9,       0.0);
     ( 313771.5, 3996441.5,     124.9,     124.9,       0.0);          ( 313791.5,
3996441.5,     125.0,     125.0,       0.0);
     ( 313811.5, 3996441.5,     125.0,     125.0,       0.0);          ( 313831.5,
3996441.5,     125.0,     125.0,       0.0);
     ( 313851.5, 3996441.5,     125.1,     125.1,       0.0);          ( 313871.5,
3996441.5,     125.1,     125.1,       0.0);
     ( 313891.5, 3996441.5,     125.1,     125.1,       0.0);          ( 313911.5,
3996441.5,     125.2,     125.2,       0.0);
     ( 313931.5, 3996441.5,     125.2,     125.2,       0.0);          ( 313951.5,
3996441.5,     125.2,     125.2,       0.0);
     ( 313971.5, 3996441.5,     125.3,     125.3,       0.0);          ( 313991.5,
3996441.5,     125.3,     125.3,       0.0);
     ( 314011.5, 3996441.5,     125.3,     125.3,       0.0);          ( 314031.5,
3996441.5,     125.3,     125.3,       0.0);
     ( 314051.5, 3996441.5,     125.4,     125.4,       0.0);          ( 314071.5,
3996441.5,     125.4,     125.4,       0.0);
     ( 314091.5, 3996441.5,     125.5,     125.5,       0.0);          ( 314111.5,
3996441.5,     125.5,     125.5,       0.0);
     ( 314131.5, 3996441.5,     125.5,     125.5,       0.0);          ( 314151.5,
3996441.5,     125.5,     125.5,       0.0);
     ( 314171.5, 3996441.5,     125.6,     125.6,       0.0);          ( 314191.5,
3996441.5,     125.6,     125.6,       0.0);
     ( 314211.5, 3996441.5,     125.6,     125.6,       0.0);          ( 314231.5,
3996441.5,     125.7,     125.7,       0.0);
     ( 314251.5, 3996441.5,     125.7,     125.7,       0.0);          ( 314271.5,
3996441.5,     125.7,     125.7,       0.0);
     ( 313751.5, 3996461.5,     124.9,     124.9,       0.0);          ( 313771.5,
3996461.5,     124.9,     124.9,       0.0);
     ( 313791.5, 3996461.5,     124.9,     124.9,       0.0);          ( 313811.5,
3996461.5,     125.0,     125.0,       0.0);
```

```
     ( 313831.5, 3996461.5,     125.0,     125.0,       0.0);          ( 313851.5,
3996461.5,     125.0,     125.0,       0.0);
     ( 313871.5, 3996461.5,     125.1,     125.1,       0.0);          ( 313891.5,
3996461.5,     125.1,     125.1,       0.0);
     ( 313911.5, 3996461.5,     125.1,     125.1,       0.0);          ( 313931.5,
3996461.5,     125.2,     125.2,       0.0);
     ( 313951.5, 3996461.5,     125.2,     125.2,       0.0);          ( 313971.5,
3996461.5,     125.2,     125.2,       0.0);
     ( 313991.5, 3996461.5,     125.3,     125.3,       0.0);          ( 314011.5,
3996461.5,     125.3,     125.3,       0.0);
     ( 314031.5, 3996461.5,     125.3,     125.3,       0.0);          ( 314051.5,
3996461.5,     125.3,     125.3,       0.0);
     ( 314071.5, 3996461.5,     125.4,     125.4,       0.0);          ( 314091.5,
3996461.5,     125.4,     125.4,       0.0);
     ( 314111.5, 3996461.5,     125.5,     125.5,       0.0);          ( 314131.5,
3996461.5,     125.5,     125.5,       0.0);
     ( 314151.5, 3996461.5,     125.5,     125.5,       0.0);          ( 314171.5,
3996461.5,     125.5,     125.5,       0.0);
     ( 314191.5, 3996461.5,     125.6,     125.6,       0.0);          ( 314211.5,
3996461.5,     125.6,     125.6,       0.0);
     ( 314231.5, 3996461.5,     125.6,     125.6,       0.0);          ( 314251.5,
3996461.5,     125.7,     125.7,       0.0);
     ( 314271.5, 3996461.5,     125.7,     125.7,       0.0);          ( 313751.5,
3996481.5,     124.8,     124.8,       0.0);
     ( 313771.5, 3996481.5,     124.9,     124.9,       0.0);          ( 313791.5,
3996481.5,     124.9,     124.9,       0.0);
     ( 313811.5, 3996481.5,     124.9,     124.9,       0.0);          ( 313831.5,
3996481.5,     125.0,     125.0,       0.0);
     ( 313851.5, 3996481.5,     125.0,     125.0,       0.0);          ( 313871.5,
3996481.5,     125.0,     125.0,       0.0);
     ( 313891.5, 3996481.5,     125.1,     125.1,       0.0);          ( 313911.5,
3996481.5,     125.1,     125.1,       0.0);
     ( 313931.5, 3996481.5,     125.1,     125.1,       0.0);          ( 313951.5,
3996481.5,     125.2,     125.2,       0.0);
     ( 313971.5, 3996481.5,     125.2,     125.2,       0.0);          ( 313991.5,
3996481.5,     125.2,     125.2,       0.0);
     ( 314011.5, 3996481.5,     125.3,     125.3,       0.0);          ( 314031.5,
3996481.5,     125.3,     125.3,       0.0);
     ( 314051.5, 3996481.5,     125.3,     125.3,       0.0);          ( 314071.5,
3996481.5,     125.4,     125.4,       0.0);
     ( 314091.5, 3996481.5,     125.4,     125.4,       0.0);          ( 314111.5,
3996481.5,     125.4,     125.4,       0.0);
     ( 314131.5, 3996481.5,     125.5,     125.5,       0.0);          ( 314151.5,
3996481.5,     125.5,     125.5,       0.0);
     ( 314171.5, 3996481.5,     125.5,     125.5,       0.0);          ( 314191.5,
3996481.5,     125.5,     125.5,       0.0);
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(314211.5, 3996481.5, 125.6, 125.6, 0.0); (314231.5, 3996481.5, 125.6, 125.6, 0.0);
(314251.5, 3996481.5, 125.6, 125.6, 0.0); (314271.5, 3996481.5, 125.7, 125.7, 0.0);
(313771.5, 3996501.5, 124.8, 124.8, 0.0); (313791.5, 3996501.5, 124.9, 124.9, 0.0);
(313811.5, 3996501.5, 124.9, 124.9, 0.0); (313831.5, 3996501.5, 125.0, 125.0, 0.0);
(313851.5, 3996501.5, 125.0, 125.0, 0.0); (313871.5, 3996501.5, 125.0, 125.0, 0.0);
(313891.5, 3996501.5, 125.0, 125.0, 0.0); (313911.5, 3996501.5, 125.1, 125.1, 0.0);
(313931.5, 3996501.5, 125.1, 125.1, 0.0); (313951.5, 3996501.5, 125.1, 125.1, 0.0);
(313971.5, 3996501.5, 125.2, 125.2, 0.0); (313991.5, 3996501.5, 125.2, 125.2, 0.0);
(314011.5, 3996501.5, 125.2, 125.2, 0.0); (314031.5, 3996501.5, 125.3, 125.3, 0.0);
(314051.5, 3996501.5, 125.3, 125.3, 0.0); (314071.5, 3996501.5, 125.3, 125.3, 0.0);
(314091.5, 3996501.5, 125.4, 125.4, 0.0); (314111.5, 3996501.5, 125.4, 125.4, 0.0);
(314131.5, 3996501.5, 125.4, 125.4, 0.0); (314151.5, 3996501.5, 125.5, 125.5, 0.0);
(314171.5, 3996501.5, 125.5, 125.5, 0.0); (314191.5, 3996501.5, 125.5, 125.5, 0.0);
(314211.5, 3996501.5, 125.6, 125.6, 0.0); (314231.5, 3996501.5, 125.6, 125.6, 0.0);
(314251.5, 3996501.5, 125.6, 125.6, 0.0); (314271.5, 3996501.5, 125.6, 125.6, 0.0);
(313771.5, 3996521.5, 124.8, 124.8, 0.0); (313791.5, 3996521.5, 124.8, 124.8, 0.0);
(313811.5, 3996521.5, 124.9, 124.9, 0.0); (313831.5, 3996521.5, 124.9, 124.9, 0.0);
(313851.5, 3996521.5, 125.0, 125.0, 0.0); (313871.5, 3996521.5, 125.0, 125.0, 0.0);
(313891.5, 3996521.5, 125.0, 125.0, 0.0); (313911.5, 3996521.5, 125.0, 125.0, 0.0);
(313931.5, 3996521.5, 125.1, 125.1, 0.0); (313951.5, 3996521.5, 125.1, 125.1, 0.0);
(313971.5, 3996521.5, 125.1, 125.1, 0.0); (313991.5, 3996521.5, 125.2, 125.2, 0.0);

(314011.5, 3996521.5, 125.2, 125.2, 0.0); (314031.5, 3996521.5, 125.2, 125.2, 0.0);
(314051.5, 3996521.5, 125.3, 125.3, 0.0); (314071.5, 3996521.5, 125.3, 125.3, 0.0);
(314091.5, 3996521.5, 125.3, 125.3, 0.0); (314111.5, 3996521.5, 125.4, 125.4, 0.0);
(314131.5, 3996521.5, 125.4, 125.4, 0.0); (314151.5, 3996521.5, 125.4, 125.4, 0.0);
(314171.5, 3996521.5, 125.5, 125.5, 0.0); (314191.5, 3996521.5, 125.5, 125.5, 0.0);
(314211.5, 3996521.5, 125.5, 125.5, 0.0); (314231.5, 3996521.5, 125.6, 125.6, 0.0);
(314251.5, 3996521.5, 125.6, 125.6, 0.0); (314271.5, 3996521.5, 125.6, 125.6, 0.0);
(313791.5, 3996541.5, 124.8, 124.8, 0.0); (313811.5, 3996541.5, 124.9, 124.9, 0.0);
(313831.5, 3996541.5, 124.9, 124.9, 0.0); (313851.5, 3996541.5, 124.9, 124.9, 0.0);
(313871.5, 3996541.5, 125.0, 125.0, 0.0); (313891.5, 3996541.5, 125.0, 125.0, 0.0);
(313911.5, 3996541.5, 125.0, 125.0, 0.0); (313931.5, 3996541.5, 125.1, 125.1, 0.0);
(313951.5, 3996541.5, 125.1, 125.1, 0.0); (313971.5, 3996541.5, 125.1, 125.1, 0.0);
(313991.5, 3996541.5, 125.1, 125.1, 0.0); (314011.5, 3996541.5, 125.2, 125.2, 0.0);
(314031.5, 3996541.5, 125.2, 125.2, 0.0); (314051.5, 3996541.5, 125.2, 125.2, 0.0);
(314071.5, 3996541.5, 125.3, 125.3, 0.0); (314091.5, 3996541.5, 125.3, 125.3, 0.0);
(314111.5, 3996541.5, 125.3, 125.3, 0.0); (314131.5, 3996541.5, 125.4, 125.4, 0.0);
(314151.5, 3996541.5, 125.4, 125.4, 0.0); (314171.5, 3996541.5, 125.5, 125.5, 0.0);
(314191.5, 3996541.5, 125.5, 125.5, 0.0); (314211.5, 3996541.5, 125.5, 125.5, 0.0);
(314231.5, 3996541.5, 125.5, 125.5, 0.0); (314251.5, 3996541.5, 125.6, 125.6, 0.0);
(314271.5, 3996541.5, 125.6, 125.6, 0.0); (313791.5, 3996561.5, 124.8, 124.8, 0.0);
(313811.5, 3996561.5, 124.8, 124.8, 0.0); (313831.5, 3996561.5, 124.9, 124.9, 0.0);
(313851.5, 3996561.5, 124.9, 124.9, 0.0); (313871.5, 3996561.5, 124.9, 124.9, 0.0);
(313891.5, 3996561.5, 125.0, 125.0, 0.0); (313911.5, 3996561.5, 125.0, 125.0, 0.0);
(313931.5, 3996561.5, 125.0, 125.0, 0.0); (313951.5, 3996561.5, 125.1, 125.1, 0.0);

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
     ( 313971.5, 3996561.5,     125.1,     125.1,       0.0);          ( 313991.5,
3996561.5,     125.1,     125.1,       0.0);
     ( 314011.5, 3996561.5,     125.2,     125.2,       0.0);          ( 314031.5,
3996561.5,     125.2,     125.2,       0.0);
     ( 314051.5, 3996561.5,     125.2,     125.2,       0.0);          ( 314071.5,
3996561.5,     125.2,     125.2,       0.0);
     ( 314091.5, 3996561.5,     125.3,     125.3,       0.0);          ( 314111.5,
3996561.5,     125.3,     125.3,       0.0);
     ( 314131.5, 3996561.5,     125.3,     125.3,       0.0);          ( 314151.5,
3996561.5,     125.4,     125.4,       0.0);
     ( 314171.5, 3996561.5,     125.4,     125.4,       0.0);          ( 314191.5,
3996561.5,     125.5,     125.5,       0.0);
     ( 314211.5, 3996561.5,     125.5,     125.5,       0.0);          ( 314231.5,
3996561.5,     125.5,     125.5,       0.0);
     ( 314251.5, 3996561.5,     125.5,     125.5,       0.0);          ( 314271.5,
3996561.5,     125.6,     125.6,       0.0);
     ( 313791.5, 3996581.5,     124.8,     124.8,       0.0);          ( 313811.5,
3996581.5,     124.8,     124.8,       0.0);
     ( 313831.5, 3996581.5,     124.9,     124.9,       0.0);          ( 313851.5,
3996581.5,     124.9,     124.9,       0.0);
     ( 313871.5, 3996581.5,     124.9,     124.9,       0.0);          ( 313891.5,
3996581.5,     125.0,     125.0,       0.0);
     ( 313911.5, 3996581.5,     125.0,     125.0,       0.0);          ( 313931.5,
3996581.5,     125.0,     125.0,       0.0);
     ( 313951.5, 3996581.5,     125.0,     125.0,       0.0);          ( 313971.5,
3996581.5,     125.1,     125.1,       0.0);
     ( 313991.5, 3996581.5,     125.1,     125.1,       0.0);          ( 314011.5,
3996581.5,     125.1,     125.1,       0.0);
     ( 314031.5, 3996581.5,     125.2,     125.2,       0.0);          ( 314051.5,
3996581.5,     125.2,     125.2,       0.0);
     ( 314071.5, 3996581.5,     125.2,     125.2,       0.0);          ( 314091.5,
3996581.5,     125.3,     125.3,       0.0);
     ( 314111.5, 3996581.5,     125.3,     125.3,       0.0);          ( 314131.5,
3996581.5,     125.3,     125.3,       0.0);
     ( 314151.5, 3996581.5,     125.3,     125.3,       0.0);          ( 314171.5,
3996581.5,     125.4,     125.4,       0.0);
     ( 314191.5, 3996581.5,     125.4,     125.4,       0.0);          ( 314211.5,
3996581.5,     125.5,     125.5,       0.0);
     ( 314231.5, 3996581.5,     125.5,     125.5,       0.0);          ( 314251.5,
3996581.5,     125.5,     125.5,       0.0);
```

```
     ( 314271.5, 3996581.5,     125.5,     125.5,       0.0);         ( 313529.1,
3996060.3,     125.8,     125.8,       0.0);
     ( 313510.2, 3996059.1,     125.8,     125.8,       0.0);         ( 313491.4,
3996062.8,     125.8,     125.8,       0.0);
```



```
                                                  *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                               (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.



                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                            (METERS/SEC)

                                                 1.54,   3.09,   5.14,   8.23,  10.80,
```

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: C:\Users\kheck\Desktop\Porterville Met Data\Porterville_2006-2009.SFC Met Version: 18081
Profile file: C:\Users\kheck\Desktop\Porterville Met Data\Porterville_2006-2009.PFL
Surface format: FREE

Profile format: FREE

Surface station no.: 23149 Upper air station no.: 23230
Name: PORTERVILLE Name: OAKLAND/WSO_AP
Year: 2006 Year: 2006

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
06	01	01	1	01	-24.8	0.249	-9.000	-9.000	-999.	297.	68.0	0.03	0.76	1.00	3.86	101.	10.0	280.1	2.0
06	01	01	1	02	-24.7	0.249	-9.000	-9.000	-999.	298.	68.0	0.03	0.76	1.00	3.86	108.	10.0	281.1	2.0
06	01	01	1	03	-21.4	0.215	-9.000	-9.000	-999.	240.	50.9	0.03	0.76	1.00	3.36	104.	10.0	280.1	2.0
06	01	01	1	04	-24.7	0.249	-9.000	-9.000	-999.	297.	68.0	0.03	0.76	1.00	3.86	113.	10.0	281.1	2.0
06	01	01	1	05	-24.7	0.249	-9.000	-9.000	-999.	298.	68.0	0.03	0.76	1.00	3.86	113.	10.0	281.1	2.0
06	01	01	1	06	-25.0	0.252	-9.000	-9.000	-999.	303.	69.7	0.03	0.76	1.00	3.86	132.	10.0	281.1	2.0
06	01	01	1	07	-28.4	0.286	-9.000	-9.000	-999.	366.	89.8	0.03	0.76	1.00	4.36	145.	10.0	281.1	2.0
06	01	01	1	08	-18.7	0.205	-9.000	-9.000	-999.	225.	46.2	0.02	0.76	0.61	3.36	163.	10.0	280.1	2.0
06	01	01	1	09	11.0	-9.000	-9.000	-9.000	95.	-999.	-99999.0	0.03	0.76	0.34	0.00	0.	10.0	282.1	2.0
06	01	01	1	10	48.2	-9.000	-9.000	-9.000	186.	-999.	-99999.0	0.03	0.76	0.25	0.00	0.	10.0	284.1	2.0
06	01	01	1	11	81.6	0.277	0.863	0.005	280.	350.	-23.1	0.04	0.76	0.22	3.36	4.	10.0	284.1	2.0
06	01	01	1	12	96.6	0.230	0.994	0.005	360.	265.	-11.1	0.02	0.76	0.21	2.86	306.	10.0	284.1	2.0
06	01	01	1	13	101.2	-9.000	-9.000	-9.000	608.	-999.	-99999.0	0.03	0.76	0.21	0.00	0.	10.0	284.1	2.0
06	01	01	1	14	17.7	0.212	0.685	0.005	644.	234.	-47.5	0.03	0.76	0.22	2.86	119.	10.0	284.1	2.0

```
 06 01 01   1 15   10.3  0.274  0.579  0.005  666.  344.   -176.6  0.03   0.76
0.25    3.86  142.   10.0  284.1    2.0
 06 01 01   1 16    0.1  0.263  0.123  0.005  668.  323.  -8888.0  0.03   0.76
0.35    3.86  104.   10.0  284.1    2.0
 06 01 01   1 17  -11.7  0.144 -9.000 -9.000 -999.  139.     22.8  0.02   0.76
0.62    2.36   41.   10.0  283.1    2.0
 06 01 01   1 18   -6.7  0.108 -9.000 -9.000 -999.   85.     16.3  0.03   0.76
1.00    1.76   97.   10.0  284.1    2.0
 06 01 01   1 19   -6.5  0.105 -9.000 -9.000 -999.   81.     15.7  0.02   0.76
1.00    1.76   44.   10.0  284.1    2.0
 06 01 01   1 20  -17.2  0.177 -9.000 -9.000 -999.  178.     34.3  0.02   0.76
1.00    2.86  317.   10.0  284.1    2.0
 06 01 01   1 21 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.03   0.76
1.00    0.00    0.   10.0  284.1    2.0
 06 01 01   1 22  -11.9  0.144 -9.000 -9.000 -999.  131.     22.7  0.02   0.76
1.00    2.36   32.   10.0  284.1    2.0
 06 01 01   1 23  -18.8  0.192 -9.000 -9.000 -999.  202.     40.6  0.04   0.76
1.00    2.86   20.   10.0  284.1    2.0
 06 01 01   1 24  -17.2  0.177 -9.000 -9.000 -999.  178.     34.3  0.02   0.76
1.00    2.86   50.   10.0  285.1    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 06 01 01 01   10.0 1  101.    3.86   280.2   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\LombardiPortervilleMitigated\LombardiPortervill ***        07/23/21
 *** AERMET - VERSION  18081 ***   ***
                      ***        10:19:35

                                 PAGE  29
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   4
YEARS FOR SOURCE GROUP: ALL      ***
                                 INCLUDING SOURCE(S):     PAREA1      ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                        X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         313271.45    3995341.55        0.00016                       313291.45
```

3995341.55 0.00016
313311.45 3995341.55 0.00017 313331.45
3995341.55 0.00017
313351.45 3995341.55 0.00018 313371.45
3995341.55 0.00018
313391.45 3995341.55 0.00019 313411.45
3995341.55 0.00020
313431.45 3995341.55 0.00021 313451.45
3995341.55 0.00022
313471.45 3995341.55 0.00023 313491.45
3995341.55 0.00024
313511.45 3995341.55 0.00026 313531.45
3995341.55 0.00028
313551.45 3995341.55 0.00029 313571.45
3995341.55 0.00031
313591.45 3995341.55 0.00034 313611.45
3995341.55 0.00037
313631.45 3995341.55 0.00040 313651.45
3995341.55 0.00043
313671.45 3995341.55 0.00047 313691.45
3995341.55 0.00051
313711.45 3995341.55 0.00055 313731.45
3995341.55 0.00059
313751.45 3995341.55 0.00064 313771.45
3995341.55 0.00068
313791.45 3995341.55 0.00073 313811.45
3995341.55 0.00078
313831.45 3995341.55 0.00082 313851.45
3995341.55 0.00086
313871.45 3995341.55 0.00091 313891.45
3995341.55 0.00095
313911.45 3995341.55 0.00098 313931.45
3995341.55 0.00102
313951.45 3995341.55 0.00105 313971.45
3995341.55 0.00108
313991.45 3995341.55 0.00110 314011.45
3995341.55 0.00112
314031.45 3995341.55 0.00114 314051.45
3995341.55 0.00114
314071.45 3995341.55 0.00115 314091.45
3995341.55 0.00114
314111.45 3995341.55 0.00114 314131.45
3995341.55 0.00112
314151.45 3995341.55 0.00111 314171.45
3995341.55 0.00109
314191.45 3995341.55 0.00107 314211.45
3995341.55 0.00105
314231.45 3995341.55 0.00102 314251.45
3995341.55 0.00100
314271.45 3995341.55 0.00097 313271.45

```
3995361.55         0.00017
         313291.45    3995361.55        0.00017                            313311.45
3995361.55         0.00018
         313331.45    3995361.55        0.00018                            313351.45
3995361.55         0.00019
         313371.45    3995361.55        0.00019                            313391.45
3995361.55         0.00020
         313411.45    3995361.55        0.00021                            313431.45
3995361.55         0.00022
         313451.45    3995361.55        0.00023                            313471.45
3995361.55         0.00024
         313491.45    3995361.55        0.00026                            313511.45
3995361.55         0.00027
         313531.45    3995361.55        0.00029                            313551.45
3995361.55         0.00031
         313571.45    3995361.55        0.00033                            313591.45
3995361.55         0.00036
         313611.45    3995361.55        0.00039                            313631.45
3995361.55         0.00042
         313651.45    3995361.55        0.00046                            313671.45
3995361.55         0.00050
         313691.45    3995361.55        0.00055                            313711.45
3995361.55         0.00060
         313731.45    3995361.55        0.00064                            313751.45
3995361.55         0.00069
         313771.45    3995361.55        0.00074                            313791.45
3995361.55         0.00079
         313811.45    3995361.55        0.00084                            313831.45
3995361.55         0.00089
```


 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   4 YEARS FOR SOURCE GROUP: ALL   ***

INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

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       X-COORD (M)   Y-COORD (M)        CONC                          X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

- -
313851.45 3995361.55 0.00094 313871.45
3995361.55 0.00098
313891.45 3995361.55 0.00103 313911.45
3995361.55 0.00107
313931.45 3995361.55 0.00110 313951.45
3995361.55 0.00114
313971.45 3995361.55 0.00117 313991.45
3995361.55 0.00119
314011.45 3995361.55 0.00121 314031.45
3995361.55 0.00122
314051.45 3995361.55 0.00123 314071.45
3995361.55 0.00122
314091.45 3995361.55 0.00122 314111.45
3995361.55 0.00121
314131.45 3995361.55 0.00119 314151.45
3995361.55 0.00117
314171.45 3995361.55 0.00115 314191.45
3995361.55 0.00112
314211.45 3995361.55 0.00109 314231.45
3995361.55 0.00107
314251.45 3995361.55 0.00104 314271.45
3995361.55 0.00101
313271.45 3995381.55 0.00018 313291.45
3995381.55 0.00018
313311.45 3995381.55 0.00018 313331.45
3995381.55 0.00019
313351.45 3995381.55 0.00020 313371.45
3995381.55 0.00020
313391.45 3995381.55 0.00021 313411.45
3995381.55 0.00022
313431.45 3995381.55 0.00023 313451.45
3995381.55 0.00024
313471.45 3995381.55 0.00026 313491.45
3995381.55 0.00027
313511.45 3995381.55 0.00029 313531.45
3995381.55 0.00031
313551.45 3995381.55 0.00033 313571.45
3995381.55 0.00035
313591.45 3995381.55 0.00038 313611.45
3995381.55 0.00042
313631.45 3995381.55 0.00046 313651.45
3995381.55 0.00050
313671.45 3995381.55 0.00055 313691.45
3995381.55 0.00060
313711.45 3995381.55 0.00065 313731.45
3995381.55 0.00070
313751.45 3995381.55 0.00076 313771.45
3995381.55 0.00081
313791.45 3995381.55 0.00087 313811.45

3995381.55   0.00092
         313831.45   3995381.55   0.00097   313851.45
3995381.55   0.00102
         313871.45   3995381.55   0.00107   313891.45
3995381.55   0.00112
         313911.45   3995381.55   0.00116   313931.45
3995381.55   0.00120
         313951.45   3995381.55   0.00123   313971.45
3995381.55   0.00126
         313991.45   3995381.55   0.00129   314011.45
3995381.55   0.00130
         314031.45   3995381.55   0.00131   314051.45
3995381.55   0.00131
         314071.45   3995381.55   0.00131   314091.45
3995381.55   0.00130
         314111.45   3995381.55   0.00128   314131.45
3995381.55   0.00126
         314151.45   3995381.55   0.00124   314171.45
3995381.55   0.00121
         314191.45   3995381.55   0.00118   314211.45
3995381.55   0.00114
         314231.45   3995381.55   0.00111   314251.45
3995381.55   0.00108
         314271.45   3995381.55   0.00104   313271.45
3995401.55   0.00019
         313291.45   3995401.55   0.00019   313311.45
3995401.55   0.00020
         313331.45   3995401.55   0.00020   313351.45
3995401.55   0.00021
         313371.45   3995401.55   0.00022   313391.45
3995401.55   0.00022

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                    *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   4 YEARS FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   PAREA1   ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)

Y-COORD (M) CONC
- -
313411.45 3995401.55 0.00023 313431.45
3995401.55 0.00024
313451.45 3995401.55 0.00026 313471.45
3995401.55 0.00027
313491.45 3995401.55 0.00029 313511.45
3995401.55 0.00030
313531.45 3995401.55 0.00032 313551.45
3995401.55 0.00035
313571.45 3995401.55 0.00038 313591.45
3995401.55 0.00041
313611.45 3995401.55 0.00045 313631.45
3995401.55 0.00049
313651.45 3995401.55 0.00054 313671.45
3995401.55 0.00059
313691.45 3995401.55 0.00065 313711.45
3995401.55 0.00071
313731.45 3995401.55 0.00077 313751.45
3995401.55 0.00083
313771.45 3995401.55 0.00089 313791.45
3995401.55 0.00095
313811.45 3995401.55 0.00101 313831.45
3995401.55 0.00106
313851.45 3995401.55 0.00112 313871.45
3995401.55 0.00117
313891.45 3995401.55 0.00122 313911.45
3995401.55 0.00126
313931.45 3995401.55 0.00131 313951.45
3995401.55 0.00134
313971.45 3995401.55 0.00137 313991.45
3995401.55 0.00140
314011.45 3995401.55 0.00141 314031.45
3995401.55 0.00142
314051.45 3995401.55 0.00141 314071.45
3995401.55 0.00140
314091.45 3995401.55 0.00139 314111.45
3995401.55 0.00136
314131.45 3995401.55 0.00134 314151.45
3995401.55 0.00130
314171.45 3995401.55 0.00127 314191.45
3995401.55 0.00123
314211.45 3995401.55 0.00120 314231.45
3995401.55 0.00116
314251.45 3995401.55 0.00112 314271.45
3995401.55 0.00108
313271.45 3995421.55 0.00020 313291.45
3995421.55 0.00020
313311.45 3995421.55 0.00021 313331.45

3995421.55   0.00021
         313351.45   3995421.55   0.00022   313371.45
3995421.55   0.00023
         313391.45   3995421.55   0.00024   313411.45
3995421.55   0.00025
         313431.45   3995421.55   0.00026   313451.45
3995421.55   0.00027
         313471.45   3995421.55   0.00029   313491.45
3995421.55   0.00030
         313511.45   3995421.55   0.00032   313531.45
3995421.55   0.00034
         313551.45   3995421.55   0.00037   313571.45
3995421.55   0.00040
         313591.45   3995421.55   0.00044   313611.45
3995421.55   0.00048
         313631.45   3995421.55   0.00053   313651.45
3995421.55   0.00059
         313671.45   3995421.55   0.00065   313691.45
3995421.55   0.00071
         313711.45   3995421.55   0.00078   313731.45
3995421.55   0.00085
         313751.45   3995421.55   0.00092   313771.45
3995421.55   0.00098
         313791.45   3995421.55   0.00105   313811.45
3995421.55   0.00111
         313831.45   3995421.55   0.00117   313851.45
3995421.55   0.00123
         313871.45   3995421.55   0.00128   313891.45
3995421.55   0.00133
         313911.45   3995421.55   0.00138   313931.45
3995421.55   0.00143
         313951.45   3995421.55   0.00147   313971.45
3995421.55   0.00150

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   4 YEARS FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
313991.45	3995421.55	0.00152	314011.45	3995421.55	0.00153
314031.45	3995421.55	0.00153	314051.45	3995421.55	0.00152
314071.45	3995421.55	0.00150	314091.45	3995421.55	0.00148
314111.45	3995421.55	0.00145	314131.45	3995421.55	0.00142
314151.45	3995421.55	0.00138	314171.45	3995421.55	0.00134
314191.45	3995421.55	0.00129	314211.45	3995421.55	0.00125
314231.45	3995421.55	0.00121	314251.45	3995421.55	0.00116
314271.45	3995421.55	0.00112	313271.45	3995441.55	0.00021
313291.45	3995441.55	0.00022	313311.45	3995441.55	0.00022
313331.45	3995441.55	0.00023	313351.45	3995441.55	0.00024
313371.45	3995441.55	0.00024	313391.45	3995441.55	0.00025
313411.45	3995441.55	0.00026	313431.45	3995441.55	0.00027
313451.45	3995441.55	0.00029	313471.45	3995441.55	0.00030
313491.45	3995441.55	0.00032	313511.45	3995441.55	0.00034
313531.45	3995441.55	0.00037	313551.45	3995441.55	0.00040
313571.45	3995441.55	0.00043	313591.45	3995441.55	0.00048
313611.45	3995441.55	0.00053	313631.45	3995441.55	0.00058
313651.45	3995441.55	0.00065	313671.45	3995441.55	0.00072
313691.45	3995441.55	0.00079	313711.45	3995441.55	0.00087
313731.45	3995441.55	0.00094	313751.45	3995441.55	0.00102
313771.45	3995441.55	0.00109	313791.45	3995441.55	0.00116
313811.45	3995441.55	0.00122	313831.45	3995441.55	0.00129
313851.45	3995441.55	0.00135	313871.45		

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3995441.55         0.00141
         313891.45    3995441.55        0.00147                       313911.45
3995441.55         0.00152
         313931.45    3995441.55        0.00157                       313951.45
3995441.55         0.00161
         313971.45    3995441.55        0.00164                       313991.45
3995441.55         0.00165
         314011.45    3995441.55        0.00166                       314031.45
3995441.55         0.00166
         314051.45    3995441.55        0.00164                       314071.45
3995441.55         0.00162
         314091.45    3995441.55        0.00158                       314111.45
3995441.55         0.00154
         314131.45    3995441.55        0.00150                       314151.45
3995441.55         0.00145
         314171.45    3995441.55        0.00140                       314191.45
3995441.55         0.00136
         314211.45    3995441.55        0.00131                       314231.45
3995441.55         0.00126
         314251.45    3995441.55        0.00121                       314271.45
3995441.55         0.00116
         313271.45    3995461.55        0.00023                       313291.45
3995461.55         0.00023
         313311.45    3995461.55        0.00024                       313331.45
3995461.55         0.00025
         313351.45    3995461.55        0.00025                       313371.45
3995461.55         0.00026
         313391.45    3995461.55        0.00027                       313411.45
3995461.55         0.00028
         313431.45    3995461.55        0.00029                       313451.45
3995461.55         0.00031
         313471.45    3995461.55        0.00032                       313491.45
3995461.55         0.00034
         313511.45    3995461.55        0.00037                       313531.45
3995461.55         0.00039
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 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   4 YEARS FOR SOURCE GROUP: ALL   ***

INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
313551.45	3995461.55	0.00043	313571.45	3995461.55	0.00047
313591.45	3995461.55	0.00052	313611.45	3995461.55	0.00057
313631.45	3995461.55	0.00064	313651.45	3995461.55	0.00072
313671.45	3995461.55	0.00080	313691.45	3995461.55	0.00088
313711.45	3995461.55	0.00097	313731.45	3995461.55	0.00105
313751.45	3995461.55	0.00113	313771.45	3995461.55	0.00121
313791.45	3995461.55	0.00129	313811.45	3995461.55	0.00136
313831.45	3995461.55	0.00143	313851.45	3995461.55	0.00149
313871.45	3995461.55	0.00156	313891.45	3995461.55	0.00162
313911.45	3995461.55	0.00168	313931.45	3995461.55	0.00173
313951.45	3995461.55	0.00177	313971.45	3995461.55	0.00180
313991.45	3995461.55	0.00181	314011.45	3995461.55	0.00181
314031.45	3995461.55	0.00180	314051.45	3995461.55	0.00177
314071.45	3995461.55	0.00174	314091.45	3995461.55	0.00169
314111.45	3995461.55	0.00164	314131.45	3995461.55	0.00159
314151.45	3995461.55	0.00153	314171.45	3995461.55	0.00148
314191.45	3995461.55	0.00142	314211.45	3995461.55	0.00136
314231.45	3995461.55	0.00131	314251.45	3995461.55	0.00125
314271.45	3995461.55	0.00120	313271.45	3995481.55	0.00025
313291.45	3995481.55	0.00025	313311.45	3995481.55	0.00026
313331.45	3995481.55	0.00027	313351.45	3995481.55	0.00027
313371.45	3995481.55	0.00028	313391.45		

3995481.55 0.00029
313411.45 3995481.55 0.00030 313431.45
3995481.55 0.00032
313451.45 3995481.55 0.00033 313471.45
3995481.55 0.00035
313491.45 3995481.55 0.00037 313511.45
3995481.55 0.00039
313531.45 3995481.55 0.00043 313551.45
3995481.55 0.00046
313571.45 3995481.55 0.00051 313591.45
3995481.55 0.00057
313611.45 3995481.55 0.00063 313631.45
3995481.55 0.00071
313651.45 3995481.55 0.00080 313671.45
3995481.55 0.00090
313691.45 3995481.55 0.00099 313711.45
3995481.55 0.00109
313731.45 3995481.55 0.00119 313751.45
3995481.55 0.00128
313771.45 3995481.55 0.00136 313791.45
3995481.55 0.00144
313811.45 3995481.55 0.00152 313831.45
3995481.55 0.00159
313851.45 3995481.55 0.00166 313871.45
3995481.55 0.00173
313891.45 3995481.55 0.00180 313911.45
3995481.55 0.00186
313931.45 3995481.55 0.00191 313951.45
3995481.55 0.00195
313971.45 3995481.55 0.00198 313991.45
3995481.55 0.00199
314011.45 3995481.55 0.00198 314031.45
3995481.55 0.00196
314051.45 3995481.55 0.00192 314071.45
3995481.55 0.00187
314091.45 3995481.55 0.00181 314111.45
3995481.55 0.00175

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS

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** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
314131.45	3995481.55	0.00168	314151.45	3995481.55	0.00161
314171.45	3995481.55	0.00155	314191.45	3995481.55	0.00148
314211.45	3995481.55	0.00142	314231.45	3995481.55	0.00136
314251.45	3995481.55	0.00130	314271.45	3995481.55	0.00124
313271.45	3995501.55	0.00027	313291.45	3995501.55	0.00028
313311.45	3995501.55	0.00028	313331.45	3995501.55	0.00029
313351.45	3995501.55	0.00030	313371.45	3995501.55	0.00031
313391.45	3995501.55	0.00032	313411.45	3995501.55	0.00033
313431.45	3995501.55	0.00034	313451.45	3995501.55	0.00036
313471.45	3995501.55	0.00038	313491.45	3995501.55	0.00040
313511.45	3995501.55	0.00043	313531.45	3995501.55	0.00046
313551.45	3995501.55	0.00050	313571.45	3995501.55	0.00056
313591.45	3995501.55	0.00063	313611.45	3995501.55	0.00071
313631.45	3995501.55	0.00080	313651.45	3995501.55	0.00091
313671.45	3995501.55	0.00102	313691.45	3995501.55	0.00113
313711.45	3995501.55	0.00125	313731.45	3995501.55	0.00135
313751.45	3995501.55	0.00145	313771.45	3995501.55	0.00154
313791.45	3995501.55	0.00162	313811.45	3995501.55	0.00170
313831.45	3995501.55	0.00178	313851.45	3995501.55	0.00186
313871.45	3995501.55	0.00193	313891.45	3995501.55	0.00201
313911.45	3995501.55	0.00208	313931.45		

3995501.55 0.00213
313951.45 3995501.55 0.00218 313971.45
3995501.55 0.00220
313991.45 3995501.55 0.00220 314011.45
3995501.55 0.00218
314031.45 3995501.55 0.00214 314051.45
3995501.55 0.00208
314071.45 3995501.55 0.00201 314091.45
3995501.55 0.00194
314111.45 3995501.55 0.00186 314131.45
3995501.55 0.00178
314151.45 3995501.55 0.00170 314171.45
3995501.55 0.00162
314191.45 3995501.55 0.00155 314211.45
3995501.55 0.00147
314231.45 3995501.55 0.00141 314251.45
3995501.55 0.00134
314271.45 3995501.55 0.00128 313271.45
3995521.55 0.00030
313291.45 3995521.55 0.00031 313311.45
3995521.55 0.00031
313331.45 3995521.55 0.00032 313351.45
3995521.55 0.00033
313371.45 3995521.55 0.00034 313391.45
3995521.55 0.00035
313411.45 3995521.55 0.00036 313431.45
3995521.55 0.00037
313451.45 3995521.55 0.00039 313471.45
3995521.55 0.00041
313491.45 3995521.55 0.00044 313511.45
3995521.55 0.00047
313531.45 3995521.55 0.00051 313551.45
3995521.55 0.00056
313571.45 3995521.55 0.00062 313591.45
3995521.55 0.00070
313611.45 3995521.55 0.00080 313631.45
3995521.55 0.00092
313651.45 3995521.55 0.00104 313671.45
3995521.55 0.00118

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
313691.45	3995521.55	0.00131	313711.45	3995521.55	0.00144
313731.45	3995521.55	0.00155	313751.45	3995521.55	0.00166
313771.45	3995521.55	0.00175	313791.45	3995521.55	0.00183
313811.45	3995521.55	0.00192	313831.45	3995521.55	0.00200
313851.45	3995521.55	0.00209	313871.45	3995521.55	0.00218
313891.45	3995521.55	0.00226	313911.45	3995521.55	0.00234
313931.45	3995521.55	0.00240	313951.45	3995521.55	0.00244
313971.45	3995521.55	0.00245	313991.45	3995521.55	0.00244
314011.45	3995521.55	0.00240	314031.45	3995521.55	0.00234
314051.45	3995521.55	0.00226	314071.45	3995521.55	0.00217
314091.45	3995521.55	0.00207	314111.45	3995521.55	0.00197
314131.45	3995521.55	0.00188	314151.45	3995521.55	0.00178
314171.45	3995521.55	0.00170	314191.45	3995521.55	0.00161
314211.45	3995521.55	0.00153	314231.45	3995521.55	0.00146
314251.45	3995521.55	0.00138	314271.45	3995521.55	0.00132
313271.45	3995541.55	0.00033	313291.45	3995541.55	0.00034
313311.45	3995541.55	0.00035	313331.45	3995541.55	0.00036
313351.45	3995541.55	0.00037	313371.45	3995541.55	0.00038
313391.45	3995541.55	0.00039	313411.45	3995541.55	0.00040
313431.45	3995541.55	0.00042	313451.45		

3995541.55 0.00043
313471.45 3995541.55 0.00046 313491.45
3995541.55 0.00048
313511.45 3995541.55 0.00052 313531.45
3995541.55 0.00056
313551.45 3995541.55 0.00062 313571.45
3995541.55 0.00069
313591.45 3995541.55 0.00080 313611.45
3995541.55 0.00092
313631.45 3995541.55 0.00107 313651.45
3995541.55 0.00123
313671.45 3995541.55 0.00139 313691.45
3995541.55 0.00154
313711.45 3995541.55 0.00169 313731.45
3995541.55 0.00181
313751.45 3995541.55 0.00191 313771.45
3995541.55 0.00200
313791.45 3995541.55 0.00209 313811.45
3995541.55 0.00217
313831.45 3995541.55 0.00227 313851.45
3995541.55 0.00237
313871.45 3995541.55 0.00247 313891.45
3995541.55 0.00257
313911.45 3995541.55 0.00265 313931.45
3995541.55 0.00272
313951.45 3995541.55 0.00276 313971.45
3995541.55 0.00276
313991.45 3995541.55 0.00273 314011.45
3995541.55 0.00266
314031.45 3995541.55 0.00256 314051.45
3995541.55 0.00245
314071.45 3995541.55 0.00233 314091.45
3995541.55 0.00221
314111.45 3995541.55 0.00209 314131.45
3995541.55 0.00198
314151.45 3995541.55 0.00187 314171.45
3995541.55 0.00177
314191.45 3995541.55 0.00167 314211.45
3995541.55 0.00159
314231.45 3995541.55 0.00150 314251.45
3995541.55 0.00143

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4

YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
314271.45	3995541.55	0.00135	313271.45	3995561.55	0.00038
313291.45	3995561.55	0.00038	313311.45	3995561.55	0.00039
313331.45	3995561.55	0.00040	313351.45	3995561.55	0.00041
313371.45	3995561.55	0.00042	313391.45	3995561.55	0.00044
313411.45	3995561.55	0.00045	313431.45	3995561.55	0.00047
313451.45	3995561.55	0.00049	313471.45	3995561.55	0.00051
313491.45	3995561.55	0.00054	313511.45	3995561.55	0.00058
313531.45	3995561.55	0.00063	313551.45	3995561.55	0.00070
313571.45	3995561.55	0.00079	313591.45	3995561.55	0.00092
313611.45	3995561.55	0.00109	313631.45	3995561.55	0.00128
313651.45	3995561.55	0.00148	313671.45	3995561.55	0.00167
313691.45	3995561.55	0.00185	313711.45	3995561.55	0.00201
313731.45	3995561.55	0.00214	313751.45	3995561.55	0.00224
313771.45	3995561.55	0.00232	313791.45	3995561.55	0.00240
313811.45	3995561.55	0.00249	313831.45	3995561.55	0.00259
313851.45	3995561.55	0.00272	313871.45	3995561.55	0.00284
313891.45	3995561.55	0.00296	313911.45	3995561.55	0.00306
313931.45	3995561.55	0.00313	313951.45	3995561.55	0.00316
313971.45	3995561.55	0.00314	313991.45		

3995561.55 0.00307
314011.45 3995561.55 0.00295 314031.45
3995561.55 0.00281
314051.45 3995561.55 0.00266 314071.45
3995561.55 0.00250
314091.45 3995561.55 0.00235 314111.45
3995561.55 0.00221
314131.45 3995561.55 0.00208 314151.45
3995561.55 0.00196
314171.45 3995561.55 0.00184 314191.45
3995561.55 0.00174
314211.45 3995561.55 0.00164 314231.45
3995561.55 0.00155
314251.45 3995561.55 0.00146 314271.45
3995561.55 0.00139
313271.45 3995581.55 0.00043 313291.45
3995581.55 0.00044
313311.45 3995581.55 0.00045 313331.45
3995581.55 0.00046
313351.45 3995581.55 0.00047 313371.45
3995581.55 0.00049
313391.45 3995581.55 0.00050 313411.45
3995581.55 0.00052
313431.45 3995581.55 0.00054 313451.45
3995581.55 0.00056
313471.45 3995581.55 0.00059 313491.45
3995581.55 0.00062
313511.45 3995581.55 0.00066 313531.45
3995581.55 0.00072
313551.45 3995581.55 0.00080 313571.45
3995581.55 0.00093
313591.45 3995581.55 0.00110 313611.45
3995581.55 0.00133
313631.45 3995581.55 0.00158 313651.45
3995581.55 0.00183
313671.45 3995581.55 0.00207 313691.45
3995581.55 0.00229
313711.45 3995581.55 0.00246 313731.45
3995581.55 0.00257
313751.45 3995581.55 0.00265 313771.45
3995581.55 0.00271
313791.45 3995581.55 0.00278 313811.45
3995581.55 0.00287

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
313831.45	3995581.55	0.00301	313851.45	3995581.55	0.00317
313871.45	3995581.55	0.00333	313891.45	3995581.55	0.00347
313911.45	3995581.55	0.00358	313931.45	3995581.55	0.00366
313951.45	3995581.55	0.00368	313971.45	3995581.55	0.00362
313991.45	3995581.55	0.00348	314011.45	3995581.55	0.00330
314031.45	3995581.55	0.00309	314051.45	3995581.55	0.00288
314071.45	3995581.55	0.00268	314091.45	3995581.55	0.00250
314111.45	3995581.55	0.00233	314131.45	3995581.55	0.00218
314151.45	3995581.55	0.00204	314171.45	3995581.55	0.00191
314191.45	3995581.55	0.00180	314211.45	3995581.55	0.00169
314231.45	3995581.55	0.00159	314251.45	3995581.55	0.00150
314271.45	3995581.55	0.00142	313271.45	3995601.55	0.00049
313291.45	3995601.55	0.00050	313311.45	3995601.55	0.00052
313331.45	3995601.55	0.00053	313351.45	3995601.55	0.00055
313371.45	3995601.55	0.00057	313391.45	3995601.55	0.00059
313411.45	3995601.55	0.00061	313431.45	3995601.55	0.00063
313451.45	3995601.55	0.00066	313471.45	3995601.55	0.00069
313491.45	3995601.55	0.00073	313511.45		

3995601.55 0.00078
313531.45 3995601.55 0.00085 313551.45
3995601.55 0.00095
313571.45 3995601.55 0.00112 313591.45
3995601.55 0.00138
313611.45 3995601.55 0.00171 313631.45
3995601.55 0.00205
313651.45 3995601.55 0.00238 313671.45
3995601.55 0.00267
313691.45 3995601.55 0.00292 313711.45
3995601.55 0.00309
313731.45 3995601.55 0.00316 313751.45
3995601.55 0.00318
313771.45 3995601.55 0.00320 313791.45
3995601.55 0.00326
313811.45 3995601.55 0.00337 313831.45
3995601.55 0.00357
313851.45 3995601.55 0.00379 313871.45
3995601.55 0.00400
313891.45 3995601.55 0.00418 313911.45
3995601.55 0.00431
313931.45 3995601.55 0.00439 313951.45
3995601.55 0.00438
313971.45 3995601.55 0.00425 313991.45
3995601.55 0.00399
314011.45 3995601.55 0.00368 314031.45
3995601.55 0.00338
314051.45 3995601.55 0.00310 314071.45
3995601.55 0.00286
314091.45 3995601.55 0.00264 314111.45
3995601.55 0.00245
314131.45 3995601.55 0.00227 314151.45
3995601.55 0.00212
314171.45 3995601.55 0.00198 314191.45
3995601.55 0.00185
314211.45 3995601.55 0.00173 314231.45
3995601.55 0.00163
314251.45 3995601.55 0.00153 314271.45
3995601.55 0.00145
313271.45 3995621.55 0.00057 313291.45
3995621.55 0.00058
313311.45 3995621.55 0.00060 313331.45
3995621.55 0.00063
313351.45 3995621.55 0.00065 313371.45
3995621.55 0.00068

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
313391.45	3995621.55	0.00070	313411.45	3995621.55	0.00073
313431.45	3995621.55	0.00077	313451.45	3995621.55	0.00081
313471.45	3995621.55	0.00085	313491.45	3995621.55	0.00090
313511.45	3995621.55	0.00096	313531.45	3995621.55	0.00104
313551.45	3995621.55	0.00117	313571.45	3995621.55	0.00143
313591.45	3995621.55	0.00187	313611.45	3995621.55	0.00238
313631.45	3995621.55	0.00285	313651.45	3995621.55	0.00327
313671.45	3995621.55	0.00362	313691.45	3995621.55	0.00391
313711.45	3995621.55	0.00404	313731.45	3995621.55	0.00398
313751.45	3995621.55	0.00388	313771.45	3995621.55	0.00385
313791.45	3995621.55	0.00390	313811.45	3995621.55	0.00407
313831.45	3995621.55	0.00441	313851.45	3995621.55	0.00477
313871.45	3995621.55	0.00505	313891.45	3995621.55	0.00526
313911.45	3995621.55	0.00540	313931.45	3995621.55	0.00548
313951.45	3995621.55	0.00543	313971.45	3995621.55	0.00511
313991.45	3995621.55	0.00459	314011.45	3995621.55	0.00409
314031.45	3995621.55	0.00368	314051.45		

3995621.55 0.00333
314071.45 3995621.55 0.00303 314091.45
3995621.55 0.00278
314111.45 3995621.55 0.00255 314131.45
3995621.55 0.00236
314151.45 3995621.55 0.00219 314171.45
3995621.55 0.00204
314191.45 3995621.55 0.00190 314211.45
3995621.55 0.00178
314231.45 3995621.55 0.00166 314251.45
3995621.55 0.00156
314271.45 3995621.55 0.00147 313271.45
3995641.55 0.00066
313291.45 3995641.55 0.00068 313311.45
3995641.55 0.00071
313331.45 3995641.55 0.00074 313351.45
3995641.55 0.00078
313371.45 3995641.55 0.00081 313391.45
3995641.55 0.00086
313411.45 3995641.55 0.00090 313431.45
3995641.55 0.00096
313451.45 3995641.55 0.00102 313471.45
3995641.55 0.00109
313491.45 3995641.55 0.00117 313511.45
3995641.55 0.00127
313531.45 3995641.55 0.00139 313551.45
3995641.55 0.00157
313571.45 3995641.55 0.00202 313591.45
3995641.55 0.00291
313611.45 3995641.55 0.00370 313631.45
3995641.55 0.00433
313651.45 3995641.55 0.00483 313671.45
3995641.55 0.00522
313691.45 3995641.55 0.00554 313711.45
3995641.55 0.00555
313731.45 3995641.55 0.00509 313751.45
3995641.55 0.00484
313771.45 3995641.55 0.00479 313791.45
3995641.55 0.00485
313811.45 3995641.55 0.00520 313971.45
3995641.55 0.00623
313991.45 3995641.55 0.00521 314011.45
3995641.55 0.00449
314031.45 3995641.55 0.00395 314051.45
3995641.55 0.00353
314071.45 3995641.55 0.00318 314091.45
3995641.55 0.00290

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
314111.45	3995641.55	0.00265	314131.45	3995641.55	0.00244
314151.45	3995641.55	0.00225	314171.45	3995641.55	0.00209
314191.45	3995641.55	0.00194	314211.45	3995641.55	0.00181
314231.45	3995641.55	0.00169	314251.45	3995641.55	0.00159
314271.45	3995641.55	0.00149	313271.45	3995661.55	0.00077
313291.45	3995661.55	0.00080	313311.45	3995661.55	0.00084
313331.45	3995661.55	0.00088	313351.45	3995661.55	0.00093
313371.45	3995661.55	0.00099	313391.45	3995661.55	0.00105
313411.45	3995661.55	0.00112	313431.45	3995661.55	0.00121
313451.45	3995661.55	0.00131	313471.45	3995661.55	0.00144
313491.45	3995661.55	0.00160	313511.45	3995661.55	0.00182
313531.45	3995661.55	0.00212	313971.45	3995661.55	0.00715
313991.45	3995661.55	0.00574	314011.45	3995661.55	0.00483
314031.45	3995661.55	0.00419	314051.45	3995661.55	0.00370
314071.45	3995661.55	0.00332	314091.45	3995661.55	0.00300
314111.45	3995661.55	0.00273	314131.45		

3995661.55 0.00250
314151.45 3995661.55 0.00230 314171.45
3995661.55 0.00213
314191.45 3995661.55 0.00198 314211.45
3995661.55 0.00184
314231.45 3995661.55 0.00172 314251.45
3995661.55 0.00161
314271.45 3995661.55 0.00151 313271.45
3995681.55 0.00089
313291.45 3995681.55 0.00094 313311.45
3995681.55 0.00099
313331.45 3995681.55 0.00105 313351.45
3995681.55 0.00112
313371.45 3995681.55 0.00119 313391.45
3995681.55 0.00128
313411.45 3995681.55 0.00139 313431.45
3995681.55 0.00152
313451.45 3995681.55 0.00169 313471.45
3995681.55 0.00190
313491.45 3995681.55 0.00219 313511.45
3995681.55 0.00261
313531.45 3995681.55 0.00327 313971.45
3995681.55 0.00776
313991.45 3995681.55 0.00612 314011.45
3995681.55 0.00509
314031.45 3995681.55 0.00438 314051.45
3995681.55 0.00385
314071.45 3995681.55 0.00343 314091.45
3995681.55 0.00308
314111.45 3995681.55 0.00280 314131.45
3995681.55 0.00256
314151.45 3995681.55 0.00235 314171.45
3995681.55 0.00217
314191.45 3995681.55 0.00201 314211.45
3995681.55 0.00186
314231.45 3995681.55 0.00174 314251.45
3995681.55 0.00162
314271.45 3995681.55 0.00152 313271.45
3995701.55 0.00103
313291.45 3995701.55 0.00109 313311.45
3995701.55 0.00116
313331.45 3995701.55 0.00124 313351.45
3995701.55 0.00133
313371.45 3995701.55 0.00143 313391.45
3995701.55 0.00156
313411.45 3995701.55 0.00171 313431.45
3995701.55 0.00189
313451.45 3995701.55 0.00213 313471.45
3995701.55 0.00244

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*** AERMET - VERSION 18081 *** ***
*** 10:19:35

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
313491.45	3995701.55	0.00286	313511.45	3995701.55	0.00347
313531.45	3995701.55	0.00441	313971.45	3995701.55	0.00821
313991.45	3995701.55	0.00640	314011.45	3995701.55	0.00529
314031.45	3995701.55	0.00453	314051.45	3995701.55	0.00396
314071.45	3995701.55	0.00351	314091.45	3995701.55	0.00315
314111.45	3995701.55	0.00285	314131.45	3995701.55	0.00260
314151.45	3995701.55	0.00238	314171.45	3995701.55	0.00219
314191.45	3995701.55	0.00203	314211.45	3995701.55	0.00188
314231.45	3995701.55	0.00175	314251.45	3995701.55	0.00164
314271.45	3995701.55	0.00153	313271.45	3995721.55	0.00118
313291.45	3995721.55	0.00126	313311.45	3995721.55	0.00134
313331.45	3995721.55	0.00144	313351.45	3995721.55	0.00156
313371.45	3995721.55	0.00169	313391.45	3995721.55	0.00185
313411.45	3995721.55	0.00205	313431.45	3995721.55	0.00229
313451.45	3995721.55	0.00259	313471.45		

3995721.55 0.00299
313491.45 3995721.55 0.00352 313511.45
3995721.55 0.00427
313531.45 3995721.55 0.00539 313971.45
3995721.55 0.00854
313991.45 3995721.55 0.00663 314011.45
3995721.55 0.00545
314031.45 3995721.55 0.00464 314051.45
3995721.55 0.00404
314071.45 3995721.55 0.00357 314091.45
3995721.55 0.00320
314111.45 3995721.55 0.00289 314131.45
3995721.55 0.00263
314151.45 3995721.55 0.00241 314171.45
3995721.55 0.00221
314191.45 3995721.55 0.00204 314211.45
3995721.55 0.00189
314231.45 3995721.55 0.00176 314251.45
3995721.55 0.00164
314271.45 3995721.55 0.00153 313271.45
3995741.55 0.00135
313291.45 3995741.55 0.00144 313311.45
3995741.55 0.00154
313331.45 3995741.55 0.00166 313351.45
3995741.55 0.00180
313371.45 3995741.55 0.00197 313391.45
3995741.55 0.00216
313411.45 3995741.55 0.00240 313431.45
3995741.55 0.00268
313451.45 3995741.55 0.00305 313471.45
3995741.55 0.00351
313491.45 3995741.55 0.00413 313511.45
3995741.55 0.00499
313531.45 3995741.55 0.00623 313971.45
3995741.55 0.00880
313991.45 3995741.55 0.00680 314011.45
3995741.55 0.00557
314031.45 3995741.55 0.00472 314051.45
3995741.55 0.00410
314071.45 3995741.55 0.00362 314091.45
3995741.55 0.00323
314111.45 3995741.55 0.00292 314131.45
3995741.55 0.00265
314151.45 3995741.55 0.00242 314171.45
3995741.55 0.00223
314191.45 3995741.55 0.00205 314211.45
3995741.55 0.00190
314231.45 3995741.55 0.00177 314251.45
3995741.55 0.00164
314271.45 3995741.55 0.00154 313271.45

3995761.55   0.00152
↑ *** AERMOD - VERSION 21112 ***   *** C:\Lakes\AERMOD View\LombardiPortervilleMitigated\LombardiPortervill ***   07/23/21
*** AERMET - VERSION 18081 ***   ***
***   10:19:35

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   4 YEARS FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
313291.45	3995761.55	0.00162	313311.45	3995761.55	0.00175
313331.45	3995761.55	0.00189	313351.45	3995761.55	0.00205
313371.45	3995761.55	0.00224	313391.45	3995761.55	0.00247
313411.45	3995761.55	0.00274	313431.45	3995761.55	0.00307
313451.45	3995761.55	0.00348	313471.45	3995761.55	0.00401
313491.45	3995761.55	0.00470	313511.45	3995761.55	0.00563
313531.45	3995761.55	0.00695	313971.45	3995761.55	0.00900
313991.45	3995761.55	0.00693	314011.45	3995761.55	0.00565
314031.45	3995761.55	0.00478	314051.45	3995761.55	0.00414
314071.45	3995761.55	0.00365	314091.45	3995761.55	0.00325
314111.45	3995761.55	0.00293	314131.45	3995761.55	0.00266
314151.45	3995761.55	0.00243	314171.45	3995761.55	0.00223
314191.45	3995761.55	0.00206	314211.45	3995761.55	0.00190
314231.45	3995761.55	0.00177	314251.45		

3995761.55 0.00164
314271.45 3995761.55 0.00153 313271.45
3995781.55 0.00169
313291.45 3995781.55 0.00181 313311.45
3995781.55 0.00195
313331.45 3995781.55 0.00211 313351.45
3995781.55 0.00230
313371.45 3995781.55 0.00251 313391.45
3995781.55 0.00277
313411.45 3995781.55 0.00307 313431.45
3995781.55 0.00344
313451.45 3995781.55 0.00390 313471.45
3995781.55 0.00447
313491.45 3995781.55 0.00521 313511.45
3995781.55 0.00620
313531.45 3995781.55 0.00758 313971.45
3995781.55 0.00914
313991.45 3995781.55 0.00702 314011.45
3995781.55 0.00570
314031.45 3995781.55 0.00481 314051.45
3995781.55 0.00416
314071.45 3995781.55 0.00366 314091.45
3995781.55 0.00326
314111.45 3995781.55 0.00294 314131.45
3995781.55 0.00266
314151.45 3995781.55 0.00243 314171.45
3995781.55 0.00223
314191.45 3995781.55 0.00205 314211.45
3995781.55 0.00190
314231.45 3995781.55 0.00176 314251.45
3995781.55 0.00164
314271.45 3995781.55 0.00153 313271.45
3995801.55 0.00187
313291.45 3995801.55 0.00200 313311.45
3995801.55 0.00216
313331.45 3995801.55 0.00234 313351.45
3995801.55 0.00254
313371.45 3995801.55 0.00278 313391.45
3995801.55 0.00306
313411.45 3995801.55 0.00339 313431.45
3995801.55 0.00379
313451.45 3995801.55 0.00428 313471.45
3995801.55 0.00489
313491.45 3995801.55 0.00567 313511.45
3995801.55 0.00671
313531.45 3995801.55 0.00813 313971.45
3995801.55 0.00923
313991.45 3995801.55 0.00706 314011.45
3995801.55 0.00572
314031.45 3995801.55 0.00481 314051.45

3995801.55   0.00415
        314071.45   3995801.55   0.00365   314091.45
3995801.55   0.00326
↑ *** AERMOD - VERSION 21112 ***   *** C:\Lakes\AERMOD
View\LombardiPortervilleMitigated\LombardiPortervill ***   07/23/21
 *** AERMET - VERSION 18081 ***   ***
                       ***   10:19:35

                                  PAGE 42
 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

                   *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   4
YEARS FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   PAREA1   ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
        314111.45   3995801.55   0.00293   314131.45
3995801.55   0.00266
        314151.45   3995801.55   0.00243   314171.45
3995801.55   0.00222
        314191.45   3995801.55   0.00205   314211.45
3995801.55   0.00189
        314231.45   3995801.55   0.00175   314251.45
3995801.55   0.00163
        314271.45   3995801.55   0.00152   313271.45
3995821.55   0.00204
        313291.45   3995821.55   0.00219   313311.45
3995821.55   0.00236
        313331.45   3995821.55   0.00255   313351.45
3995821.55   0.00277
        313371.45   3995821.55   0.00303   313391.45
3995821.55   0.00333
        313411.45   3995821.55   0.00369   313431.45
3995821.55   0.00411
        313451.45   3995821.55   0.00463   313471.45
3995821.55   0.00527
        313491.45   3995821.55   0.00609   313511.45
3995821.55   0.00716
        313531.45   3995821.55   0.00860   313971.45
3995821.55   0.00924
        313991.45   3995821.55   0.00703   314011.45

3995821.55 0.00568
314031.45 3995821.55 0.00478 314051.45
3995821.55 0.00413
314071.45 3995821.55 0.00364 314091.45
3995821.55 0.00324
314111.45 3995821.55 0.00292 314131.45
3995821.55 0.00265
314151.45 3995821.55 0.00242 314171.45
3995821.55 0.00221
314191.45 3995821.55 0.00204 314211.45
3995821.55 0.00188
314231.45 3995821.55 0.00174 314251.45
3995821.55 0.00162
314271.45 3995821.55 0.00151 313271.45
3995841.55 0.00221
313291.45 3995841.55 0.00237 313311.45
3995841.55 0.00255
313331.45 3995841.55 0.00276 313351.45
3995841.55 0.00300
313371.45 3995841.55 0.00327 313391.45
3995841.55 0.00359
313411.45 3995841.55 0.00396 313431.45
3995841.55 0.00441
313451.45 3995841.55 0.00495 313471.45
3995841.55 0.00562
313491.45 3995841.55 0.00646 313511.45
3995841.55 0.00755
313531.45 3995841.55 0.00901 313971.45
3995841.55 0.00914
313991.45 3995841.55 0.00693 314011.45
3995841.55 0.00561
314031.45 3995841.55 0.00473 314051.45
3995841.55 0.00410
314071.45 3995841.55 0.00361 314091.45
3995841.55 0.00322
314111.45 3995841.55 0.00290 314131.45
3995841.55 0.00263
314151.45 3995841.55 0.00240 314171.45
3995841.55 0.00220
314191.45 3995841.55 0.00202 314211.45
3995841.55 0.00187
314231.45 3995841.55 0.00173 314251.45
3995841.55 0.00160
314271.45 3995841.55 0.00149 313271.45
3995861.55 0.00237
313291.45 3995861.55 0.00254 313311.45
3995861.55 0.00273
313331.45 3995861.55 0.00295 313351.45
3995861.55 0.00321
313371.45 3995861.55 0.00349 313391.45

3995861.55 0.00383
313411.45 3995861.55 0.00422 313431.45
3995861.55 0.00469
313451.45 3995861.55 0.00524 313471.45
3995861.55 0.00593

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
313491.45	3995861.55	0.00679	313511.45	3995861.55	0.00790
313531.45	3995861.55	0.00937	313991.45	3995861.55	0.00673
314011.45	3995861.55	0.00548	314031.45	3995861.55	0.00465
314051.45	3995861.55	0.00405	314071.45	3995861.55	0.00358
314091.45	3995861.55	0.00320	314111.45	3995861.55	0.00288
314131.45	3995861.55	0.00262	314151.45	3995861.55	0.00238
314171.45	3995861.55	0.00218	314191.45	3995861.55	0.00201
314211.45	3995861.55	0.00185	314231.45	3995861.55	0.00171
314251.45	3995861.55	0.00159	314271.45	3995861.55	0.00148
313271.45	3995881.55	0.00252	313291.45	3995881.55	0.00271
313311.45	3995881.55	0.00291	313331.45	3995881.55	0.00314
313351.45	3995881.55	0.00340	313371.45		

3995881.55 0.00370
313391.45 3995881.55 0.00405 313411.45
3995881.55 0.00446
313431.45 3995881.55 0.00494 313451.45
3995881.55 0.00551
313471.45 3995881.55 0.00621 313491.45
3995881.55 0.00709
313511.45 3995881.55 0.00820 313531.45
3995881.55 0.00967
313991.45 3995881.55 0.00645 314011.45
3995881.55 0.00534
314031.45 3995881.55 0.00457 314051.45
3995881.55 0.00400
314071.45 3995881.55 0.00355 314091.45
3995881.55 0.00318
314111.45 3995881.55 0.00286 314131.45
3995881.55 0.00260
314151.45 3995881.55 0.00237 314171.45
3995881.55 0.00216
314191.45 3995881.55 0.00199 314211.45
3995881.55 0.00183
314231.45 3995881.55 0.00169 314251.45
3995881.55 0.00157
314271.45 3995881.55 0.00146 313291.45
3995901.55 0.00286
313311.45 3995901.55 0.00307 313331.45
3995901.55 0.00331
313351.45 3995901.55 0.00359 313371.45
3995901.55 0.00390
313391.45 3995901.55 0.00426 313411.45
3995901.55 0.00468
313431.45 3995901.55 0.00517 313451.45
3995901.55 0.00576
313471.45 3995901.55 0.00647 313491.45
3995901.55 0.00735
313511.45 3995901.55 0.00847 313531.45
3995901.55 0.00994
313991.45 3995901.55 0.00618 314011.45
3995901.55 0.00521
314031.45 3995901.55 0.00451 314051.45
3995901.55 0.00397
314071.45 3995901.55 0.00352 314091.45
3995901.55 0.00316
314111.45 3995901.55 0.00284 314131.45
3995901.55 0.00258
314151.45 3995901.55 0.00234 314171.45
3995901.55 0.00214
314191.45 3995901.55 0.00197 314211.45
3995901.55 0.00181
314231.45 3995901.55 0.00167 314251.45

3995901.55 0.00155
314271.45 3995901.55 0.00144 313311.45
3995921.55 0.00323
313331.45 3995921.55 0.00348 313351.45
3995921.55 0.00376
313371.45 3995921.55 0.00408 313391.45
3995921.55 0.00445

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
313411.45	3995921.55	0.00488	313431.45	3995921.55	0.00538
313451.45	3995921.55	0.00597	313471.45	3995921.55	0.00669
313491.45	3995921.55	0.00758	313511.45	3995921.55	0.00871
313531.45	3995921.55	0.01017	313991.45	3995921.55	0.00603
314011.45	3995921.55	0.00515	314031.45	3995921.55	0.00448
314051.45	3995921.55	0.00394	314071.45	3995921.55	0.00351
314091.45	3995921.55	0.00314	314111.45	3995921.55	0.00282
314131.45	3995921.55	0.00256	314151.45	3995921.55	0.00232
314171.45	3995921.55	0.00212	314191.45	3995921.55	0.00194
314211.45	3995921.55	0.00179	314231.45	3995921.55	0.00165
314251.45	3995921.55	0.00152	314271.45		

3995921.55 0.00141
313331.45 3995941.55 0.00363 313351.45
3995941.55 0.00392
313371.45 3995941.55 0.00425 313391.45
3995941.55 0.00462
313411.45 3995941.55 0.00506 313431.45
3995941.55 0.00557
313451.45 3995941.55 0.00617 313471.45
3995941.55 0.00690
313491.45 3995941.55 0.00779 313511.45
3995941.55 0.00892
313531.45 3995941.55 0.01038 313991.45
3995941.55 0.00597
314011.45 3995941.55 0.00513 314031.45
3995941.55 0.00447
314051.45 3995941.55 0.00394 314071.45
3995941.55 0.00350
314091.45 3995941.55 0.00312 314111.45
3995941.55 0.00281
314131.45 3995941.55 0.00253 314151.45
3995941.55 0.00230
314171.45 3995941.55 0.00209 314191.45
3995941.55 0.00192
314211.45 3995941.55 0.00176 314231.45
3995941.55 0.00162
314251.45 3995941.55 0.00150 314271.45
3995941.55 0.00139
313351.45 3995961.55 0.00407 313371.45
3995961.55 0.00440
313391.45 3995961.55 0.00478 313411.45
3995961.55 0.00523
313431.45 3995961.55 0.00574 313451.45
3995961.55 0.00635
313471.45 3995961.55 0.00708 313491.45
3995961.55 0.00798
313511.45 3995961.55 0.00910 313531.45
3995961.55 0.01056
313991.45 3995961.55 0.00597 314011.45
3995961.55 0.00515
314031.45 3995961.55 0.00449 314051.45
3995961.55 0.00395
314071.45 3995961.55 0.00349 314091.45
3995961.55 0.00311
314111.45 3995961.55 0.00279 314131.45
3995961.55 0.00251
314151.45 3995961.55 0.00227 314171.45
3995961.55 0.00207
314191.45 3995961.55 0.00189 314211.45
3995961.55 0.00173
314231.45 3995961.55 0.00159 314251.45

3995961.55   0.00147
         314271.45   3995961.55   0.00136   313371.45
3995981.55   0.00454
         313391.45   3995981.55   0.00493   313411.45
3995981.55   0.00538
         313431.45   3995981.55   0.00590   313451.45
3995981.55   0.00651
         313471.45   3995981.55   0.00725   313491.45
3995981.55   0.00814

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   4 YEARS FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
313511.45	3995981.55	0.00926	313531.45	3995981.55	0.01071
313991.45	3995981.55	0.00606	314011.45	3995981.55	0.00522
314031.45	3995981.55	0.00453	314051.45	3995981.55	0.00396
314071.45	3995981.55	0.00349	314091.45	3995981.55	0.00309
314111.45	3995981.55	0.00276	314131.45	3995981.55	0.00248
314151.45	3995981.55	0.00224	314171.45	3995981.55	0.00203
314191.45	3995981.55	0.00186	314211.45	3995981.55	0.00170
314231.45	3995981.55	0.00156	314251.45	3995981.55	0.00144
314271.45	3995981.55	0.00134	313391.45	3996001.55	0.00507
313411.45	3996001.55	0.00552	313431.45		

3996001.55 0.00604
313451.45 3996001.55 0.00666 313471.45
3996001.55 0.00739
313491.45 3996001.55 0.00829 313511.45
3996001.55 0.00940
313531.45 3996001.55 0.01085 313991.45
3996001.55 0.00624
314011.45 3996001.55 0.00532 314031.45
3996001.55 0.00457
314051.45 3996001.55 0.00397 314071.45
3996001.55 0.00348
314091.45 3996001.55 0.00307 314111.45
3996001.55 0.00273
314131.45 3996001.55 0.00245 314151.45
3996001.55 0.00221
314171.45 3996001.55 0.00200 314191.45
3996001.55 0.00182
314211.45 3996001.55 0.00167 314231.45
3996001.55 0.00153
314251.45 3996001.55 0.00141 314271.45
3996001.55 0.00131
313411.45 3996021.55 0.00565 313431.45
3996021.55 0.00617
313451.45 3996021.55 0.00679 313471.45
3996021.55 0.00753
313491.45 3996021.55 0.00842 313511.45
3996021.55 0.00953
313531.45 3996021.55 0.01096 313991.45
3996021.55 0.00651
314011.45 3996021.55 0.00543 314031.45
3996021.55 0.00461
314051.45 3996021.55 0.00397 314071.45
3996021.55 0.00345
314091.45 3996021.55 0.00304 314111.45
3996021.55 0.00269
314131.45 3996021.55 0.00241 314151.45
3996021.55 0.00216
314171.45 3996021.55 0.00196 314191.45
3996021.55 0.00178
314211.45 3996021.55 0.00163 314231.45
3996021.55 0.00149
314251.45 3996021.55 0.00138 314271.45
3996021.55 0.00127
313431.45 3996041.55 0.00629 313451.45
3996041.55 0.00691
313471.45 3996041.55 0.00764 313491.45
3996041.55 0.00853
313511.45 3996041.55 0.00964 313531.45
3996041.55 0.01106
313991.45 3996041.55 0.00674 314011.45

3996041.55 0.00550
314031.45 3996041.55 0.00461 314051.45
3996041.55 0.00394
314071.45 3996041.55 0.00341 314091.45
3996041.55 0.00299
314111.45 3996041.55 0.00264 314131.45
3996041.55 0.00235
314151.45 3996041.55 0.00211 314171.45
3996041.55 0.00191
314191.45 3996041.55 0.00173 314211.45
3996041.55 0.00158

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
314231.45	3996041.55	0.00145	314251.45	3996041.55	0.00134
314271.45	3996041.55	0.00124	313991.45	3996061.55	0.00684
314011.45	3996061.55	0.00551	314031.45	3996061.55	0.00458
314051.45	3996061.55	0.00389	314071.45	3996061.55	0.00335
314091.45	3996061.55	0.00292	314111.45	3996061.55	0.00258
314131.45	3996061.55	0.00229	314151.45	3996061.55	0.00206
314171.45	3996061.55	0.00186	314191.45	3996061.55	0.00169
314211.45	3996061.55	0.00154	314231.45	3996061.55	0.00141
314251.45	3996061.55	0.00130	314271.45		

3996061.55 0.00120
313991.45 3996081.55 0.00684 314011.45
3996081.55 0.00546
314031.45 3996081.55 0.00451 314051.45
3996081.55 0.00381
314071.45 3996081.55 0.00327 314091.45
3996081.55 0.00284
314111.45 3996081.55 0.00250 314131.45
3996081.55 0.00222
314151.45 3996081.55 0.00199 314171.45
3996081.55 0.00180
314191.45 3996081.55 0.00163 314211.45
3996081.55 0.00149
314231.45 3996081.55 0.00137 314251.45
3996081.55 0.00126
314271.45 3996081.55 0.00117 313991.45
3996101.55 0.00679
314011.45 3996101.55 0.00537 314031.45
3996101.55 0.00440
314051.45 3996101.55 0.00370 314071.45
3996101.55 0.00316
314091.45 3996101.55 0.00275 314111.45
3996101.55 0.00241
314131.45 3996101.55 0.00214 314151.45
3996101.55 0.00192
314171.45 3996101.55 0.00173 314191.45
3996101.55 0.00157
314211.45 3996101.55 0.00144 314231.45
3996101.55 0.00132
314251.45 3996101.55 0.00122 314271.45
3996101.55 0.00113
313991.45 3996121.55 0.00668 314011.45
3996121.55 0.00523
314031.45 3996121.55 0.00426 314051.45
3996121.55 0.00357
314071.45 3996121.55 0.00304 314091.45
3996121.55 0.00264
314111.45 3996121.55 0.00232 314131.45
3996121.55 0.00206
314151.45 3996121.55 0.00184 314171.45
3996121.55 0.00166
314191.45 3996121.55 0.00151 314211.45
3996121.55 0.00138
314231.45 3996121.55 0.00127 314251.45
3996121.55 0.00117
314271.45 3996121.55 0.00109 313991.45
3996141.55 0.00650
314011.45 3996141.55 0.00505 314031.45
3996141.55 0.00409
314051.45 3996141.55 0.00341 314071.45

```
3996141.55         0.00290
         314091.45    3996141.55        0.00251                              314111.45
3996141.55         0.00221
         314131.45    3996141.55        0.00196                              314151.45
3996141.55         0.00176
         314171.45    3996141.55        0.00159                              314191.45
3996141.55         0.00145
         314211.45    3996141.55        0.00132                              314231.45
3996141.55         0.00122
         314251.45    3996141.55        0.00113                              314271.45
3996141.55         0.00104
         313991.45    3996161.55        0.00626                              314011.45
3996161.55         0.00482
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   4
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     PAREA1      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                               X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
         314031.45    3996161.55        0.00388                              314051.45
3996161.55         0.00323
         314071.45    3996161.55        0.00275                              314091.45
3996161.55         0.00238
         314111.45    3996161.55        0.00210                              314131.45
3996161.55         0.00186
         314151.45    3996161.55        0.00167                              314171.45
3996161.55         0.00152
         314191.45    3996161.55        0.00138                              314211.45
3996161.55         0.00127
         314231.45    3996161.55        0.00117                              314251.45
3996161.55         0.00108
         314271.45    3996161.55        0.00100                              313991.45
3996181.55         0.00594
         314011.45    3996181.55        0.00453                              314031.45
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3996181.55 0.00364
314051.45 3996181.55 0.00303 314071.45
3996181.55 0.00258
314091.45 3996181.55 0.00224 314111.45
3996181.55 0.00198
314131.45 3996181.55 0.00176 314151.45
3996181.55 0.00159
314171.45 3996181.55 0.00144 314191.45
3996181.55 0.00132
314211.45 3996181.55 0.00121 314231.45
3996181.55 0.00112
314251.45 3996181.55 0.00104 314271.45
3996181.55 0.00096
313991.45 3996201.55 0.00551 314011.45
3996201.55 0.00419
314031.45 3996201.55 0.00336 314051.45
3996201.55 0.00281
314071.45 3996201.55 0.00241 314091.45
3996201.55 0.00210
314111.45 3996201.55 0.00186 314131.45
3996201.55 0.00166
314151.45 3996201.55 0.00150 314171.45
3996201.55 0.00137
314191.45 3996201.55 0.00125 314211.45
3996201.55 0.00115
314231.45 3996201.55 0.00107 314251.45
3996201.55 0.00099
314271.45 3996201.55 0.00092 313991.45
3996221.55 0.00495
314011.45 3996221.55 0.00378 314031.45
3996221.55 0.00307
314051.45 3996221.55 0.00259 314071.45
3996221.55 0.00223
314091.45 3996221.55 0.00196 314111.45
3996221.55 0.00175
314131.45 3996221.55 0.00157 314151.45
3996221.55 0.00142
314171.45 3996221.55 0.00130 314191.45
3996221.55 0.00119
314211.45 3996221.55 0.00110 314231.45
3996221.55 0.00102
314251.45 3996221.55 0.00095 314271.45
3996221.55 0.00089
313991.45 3996241.55 0.00428 314011.45
3996241.55 0.00336
314031.45 3996241.55 0.00278 314051.45
3996241.55 0.00237
314071.45 3996241.55 0.00207 314091.45
3996241.55 0.00183
314111.45 3996241.55 0.00164 314131.45

3996241.55 0.00148
314151.45 3996241.55 0.00135 314171.45
3996241.55 0.00123
314191.45 3996241.55 0.00114 314211.45
3996241.55 0.00105
314231.45 3996241.55 0.00098 314251.45
3996241.55 0.00091
314271.45 3996241.55 0.00085 313991.45
3996261.55 0.00366
314011.45 3996261.55 0.00298 314031.45
3996261.55 0.00252
314051.45 3996261.55 0.00218 314071.45
3996261.55 0.00192
314091.45 3996261.55 0.00171 314111.45
3996261.55 0.00154

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC X-COORD (M) Y-COORD (M) CONC
- -
314131.45 3996261.55 0.00140 314151.45
3996261.55 0.00128
314171.45 3996261.55 0.00117 314191.45
3996261.55 0.00108
314211.45 3996261.55 0.00100 314231.45
3996261.55 0.00094
314251.45 3996261.55 0.00087 314271.45
3996261.55 0.00082
313991.45 3996281.55 0.00321 314011.45
3996281.55 0.00269
314031.45 3996281.55 0.00231 314051.45
3996281.55 0.00202
314071.45 3996281.55 0.00179 314091.45

3996281.55 0.00161
314111.45 3996281.55 0.00145 314131.45
3996281.55 0.00132
314151.45 3996281.55 0.00121 314171.45
3996281.55 0.00112
314191.45 3996281.55 0.00104 314211.45
3996281.55 0.00096
314231.45 3996281.55 0.00090 314251.45
3996281.55 0.00084
314271.45 3996281.55 0.00079 313811.45
3996301.55 0.00904
313831.45 3996301.55 0.00857 313851.45
3996301.55 0.00802
313871.45 3996301.55 0.00741 313891.45
3996301.55 0.00672
313911.45 3996301.55 0.00594 313931.45
3996301.55 0.00510
313951.45 3996301.55 0.00423 313971.45
3996301.55 0.00347
313991.45 3996301.55 0.00289 314011.45
3996301.55 0.00246
314031.45 3996301.55 0.00214 314051.45
3996301.55 0.00188
314071.45 3996301.55 0.00168 314091.45
3996301.55 0.00152
314111.45 3996301.55 0.00138 314131.45
3996301.55 0.00126
314151.45 3996301.55 0.00116 314171.45
3996301.55 0.00107
314191.45 3996301.55 0.00099 314211.45
3996301.55 0.00092
314231.45 3996301.55 0.00086 314251.45
3996301.55 0.00081
314271.45 3996301.55 0.00076 313811.45
3996321.55 0.00756
313831.45 3996321.55 0.00713 313851.45
3996321.55 0.00666
313871.45 3996321.55 0.00613 313891.45
3996321.55 0.00556
313911.45 3996321.55 0.00494 313931.45
3996321.55 0.00429
313951.45 3996321.55 0.00365 313971.45
3996321.55 0.00309
313991.45 3996321.55 0.00263 314011.45
3996321.55 0.00227
314031.45 3996321.55 0.00199 314051.45
3996321.55 0.00177
314071.45 3996321.55 0.00159 314091.45
3996321.55 0.00144
314111.45 3996321.55 0.00131 314131.45

3996321.55 0.00120
314151.45 3996321.55 0.00111 314171.45
3996321.55 0.00102
314191.45 3996321.55 0.00095 314211.45
3996321.55 0.00089
314231.45 3996321.55 0.00083 314251.45
3996321.55 0.00078
314271.45 3996321.55 0.00073 313811.45
3996341.55 0.00646
313831.45 3996341.55 0.00609 313851.45
3996341.55 0.00568
313871.45 3996341.55 0.00523 313891.45
3996341.55 0.00475
313911.45 3996341.55 0.00424 313931.45
3996341.55 0.00373
313951.45 3996341.55 0.00324 313971.45
3996341.55 0.00279

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
313991.45	3996341.55	0.00242	314011.45	3996341.55	0.00212
314031.45	3996341.55	0.00187	314051.45	3996341.55	0.00167
314071.45	3996341.55	0.00151	314091.45	3996341.55	0.00137
314111.45	3996341.55	0.00125	314131.45	3996341.55	0.00115
314151.45	3996341.55	0.00106	314171.45	3996341.55	0.00098
314191.45	3996341.55	0.00092	314211.45		

3996341.55 0.00086
314231.45 3996341.55 0.00080 314251.45
3996341.55 0.00075
314271.45 3996341.55 0.00071 313811.45
3996361.55 0.00563
313831.45 3996361.55 0.00530 313851.45
3996361.55 0.00494
313871.45 3996361.55 0.00456 313891.45
3996361.55 0.00415
313911.45 3996361.55 0.00373 313931.45
3996361.55 0.00331
313951.45 3996361.55 0.00292 313971.45
3996361.55 0.00256
313991.45 3996361.55 0.00224 314011.45
3996361.55 0.00198
314031.45 3996361.55 0.00177 314051.45
3996361.55 0.00159
314071.45 3996361.55 0.00143 314091.45
3996361.55 0.00131
314111.45 3996361.55 0.00120 314131.45
3996361.55 0.00110
314151.45 3996361.55 0.00102 314171.45
3996361.55 0.00095
314191.45 3996361.55 0.00088 314211.45
3996361.55 0.00083
314231.45 3996361.55 0.00077 314251.45
3996361.55 0.00073
314271.45 3996361.55 0.00069 313731.45
3996381.55 0.00587
313751.45 3996381.55 0.00569 313771.45
3996381.55 0.00548
313791.45 3996381.55 0.00524 313811.45
3996381.55 0.00497
313831.45 3996381.55 0.00468 313851.45
3996381.55 0.00437
313871.45 3996381.55 0.00403 313891.45
3996381.55 0.00369
313911.45 3996381.55 0.00333 313931.45
3996381.55 0.00299
313951.45 3996381.55 0.00266 313971.45
3996381.55 0.00236
313991.45 3996381.55 0.00209 314011.45
3996381.55 0.00186
314031.45 3996381.55 0.00167 314051.45
3996381.55 0.00151
314071.45 3996381.55 0.00137 314091.45
3996381.55 0.00125
314111.45 3996381.55 0.00115 314131.45
3996381.55 0.00106
314151.45 3996381.55 0.00098 314171.45

3996381.55 0.00092
314191.45 3996381.55 0.00085 314211.45
3996381.55 0.00080
314231.45 3996381.55 0.00075 314251.45
3996381.55 0.00071
314271.45 3996381.55 0.00067 313731.45
3996401.55 0.00526
313751.45 3996401.55 0.00509 313771.45
3996401.55 0.00490
313791.45 3996401.55 0.00468 313811.45
3996401.55 0.00444
313831.45 3996401.55 0.00418 313851.45
3996401.55 0.00391
313871.45 3996401.55 0.00362 313891.45
3996401.55 0.00332
313911.45 3996401.55 0.00302 313931.45
3996401.55 0.00272
313951.45 3996401.55 0.00245 313971.45
3996401.55 0.00219

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC X-COORD (M) Y-COORD (M) CONC
- -
313991.45 3996401.55 0.00196 314011.45
3996401.55 0.00176
314031.45 3996401.55 0.00158 314051.45
3996401.55 0.00144
314071.45 3996401.55 0.00131 314091.45
3996401.55 0.00120
314111.45 3996401.55 0.00111 314131.45
3996401.55 0.00102
314151.45 3996401.55 0.00095 314171.45

3996401.55 0.00089
314191.45 3996401.55 0.00083 314211.45
3996401.55 0.00078
314231.45 3996401.55 0.00073 314251.45
3996401.55 0.00069
314271.45 3996401.55 0.00065 313731.45
3996421.55 0.00474
313751.45 3996421.55 0.00459 313771.45
3996421.55 0.00442
313791.45 3996421.55 0.00422 313811.45
3996421.55 0.00400
313831.45 3996421.55 0.00377 313851.45
3996421.55 0.00353
313871.45 3996421.55 0.00327 313891.45
3996421.55 0.00302
313911.45 3996421.55 0.00276 313931.45
3996421.55 0.00250
313951.45 3996421.55 0.00227 313971.45
3996421.55 0.00204
313991.45 3996421.55 0.00184 314011.45
3996421.55 0.00166
314031.45 3996421.55 0.00151 314051.45
3996421.55 0.00137
314071.45 3996421.55 0.00126 314091.45
3996421.55 0.00115
314111.45 3996421.55 0.00107 314131.45
3996421.55 0.00099
314151.45 3996421.55 0.00092 314171.45
3996421.55 0.00086
314191.45 3996421.55 0.00080 314211.45
3996421.55 0.00075
314231.45 3996421.55 0.00071 314251.45
3996421.55 0.00067
314271.45 3996421.55 0.00063 313751.45
3996441.55 0.00417
313771.45 3996441.55 0.00401 313791.45
3996441.55 0.00383
313811.45 3996441.55 0.00364 313831.45
3996441.55 0.00343
313851.45 3996441.55 0.00321 313871.45
3996441.55 0.00299
313891.45 3996441.55 0.00276 313911.45
3996441.55 0.00254
313931.45 3996441.55 0.00232 313951.45
3996441.55 0.00211
313971.45 3996441.55 0.00192 313991.45
3996441.55 0.00174
314011.45 3996441.55 0.00158 314031.45
3996441.55 0.00144
314051.45 3996441.55 0.00131 314071.45

3996441.55 0.00121
314091.45 3996441.55 0.00111 314111.45
3996441.55 0.00103
314131.45 3996441.55 0.00096 314151.45
3996441.55 0.00089
314171.45 3996441.55 0.00083 314191.45
3996441.55 0.00078
314211.45 3996441.55 0.00073 314231.45
3996441.55 0.00069
314251.45 3996441.55 0.00065 314271.45
3996441.55 0.00062
313751.45 3996461.55 0.00381 313771.45
3996461.55 0.00366
313791.45 3996461.55 0.00350 313811.45
3996461.55 0.00333
313831.45 3996461.55 0.00314 313851.45
3996461.55 0.00295
313871.45 3996461.55 0.00275 313891.45
3996461.55 0.00255
313911.45 3996461.55 0.00235 313931.45
3996461.55 0.00216

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC X-COORD (M) Y-COORD (M) CONC
- -
313951.45 3996461.55 0.00197 313971.45
3996461.55 0.00180
313991.45 3996461.55 0.00164 314011.45
3996461.55 0.00150
314031.45 3996461.55 0.00137 314051.45
3996461.55 0.00126
314071.45 3996461.55 0.00116 314091.45

3996461.55 0.00107
314111.45 3996461.55 0.00099 314131.45
3996461.55 0.00092
314151.45 3996461.55 0.00086 314171.45
3996461.55 0.00081
314191.45 3996461.55 0.00076 314211.45
3996461.55 0.00071
314231.45 3996461.55 0.00067 314251.45
3996461.55 0.00063
314271.45 3996461.55 0.00060 313751.45
3996481.55 0.00350
313771.45 3996481.55 0.00336 313791.45
3996481.55 0.00322
313811.45 3996481.55 0.00306 313831.45
3996481.55 0.00289
313851.45 3996481.55 0.00272 313871.45
3996481.55 0.00254
313891.45 3996481.55 0.00237 313911.45
3996481.55 0.00219
313931.45 3996481.55 0.00202 313951.45
3996481.55 0.00186
313971.45 3996481.55 0.00170 313991.45
3996481.55 0.00156
314011.45 3996481.55 0.00143 314031.45
3996481.55 0.00131
314051.45 3996481.55 0.00121 314071.45
3996481.55 0.00111
314091.45 3996481.55 0.00103 314111.45
3996481.55 0.00096
314131.45 3996481.55 0.00089 314151.45
3996481.55 0.00084
314171.45 3996481.55 0.00078 314191.45
3996481.55 0.00074
314211.45 3996481.55 0.00069 314231.45
3996481.55 0.00066
314251.45 3996481.55 0.00062 314271.45
3996481.55 0.00059
313771.45 3996501.55 0.00310 313791.45
3996501.55 0.00297
313811.45 3996501.55 0.00283 313831.45
3996501.55 0.00268
313851.45 3996501.55 0.00252 313871.45
3996501.55 0.00236
313891.45 3996501.55 0.00220 313911.45
3996501.55 0.00205
313931.45 3996501.55 0.00190 313951.45
3996501.55 0.00175
313971.45 3996501.55 0.00161 313991.45
3996501.55 0.00148
314011.45 3996501.55 0.00136 314031.45

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3996501.55        0.00126
         314051.45    3996501.55        0.00116                            314071.45
3996501.55        0.00107
         314091.45    3996501.55        0.00100                            314111.45
3996501.55        0.00093
         314131.45    3996501.55        0.00087                            314151.45
3996501.55        0.00081
         314171.45    3996501.55        0.00076                            314191.45
3996501.55        0.00072
         314211.45    3996501.55        0.00068                            314231.45
3996501.55        0.00064
         314251.45    3996501.55        0.00061                            314271.45
3996501.55        0.00057
         313771.45    3996521.55        0.00288                            313791.45
3996521.55        0.00275
         313811.45    3996521.55        0.00262                            313831.45
3996521.55        0.00249
         313851.45    3996521.55        0.00235                            313871.45
3996521.55        0.00221
         313891.45    3996521.55        0.00206                            313911.45
3996521.55        0.00192
         313931.45    3996521.55        0.00179                            313951.45
3996521.55        0.00165
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\LombardiPortervilleMitigated\LombardiPortervill ***        07/23/21
 *** AERMET - VERSION  18081 ***   ***
                       ***        10:19:35

                                  PAGE  52
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   4
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     PAREA1      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                             X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -
         313971.45    3996521.55        0.00153                            313991.45
3996521.55        0.00141
         314011.45    3996521.55        0.00130                            314031.45
3996521.55        0.00120
         314051.45    3996521.55        0.00112                            314071.45
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3996521.55 0.00104
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314131.45 3996521.55 0.00084 314151.45
3996521.55 0.00079
314171.45 3996521.55 0.00074 314191.45
3996521.55 0.00070
314211.45 3996521.55 0.00066 314231.45
3996521.55 0.00062
314251.45 3996521.55 0.00059 314271.45
3996521.55 0.00056
313791.45 3996541.55 0.00256 313811.45
3996541.55 0.00245
313831.45 3996541.55 0.00232 313851.45
3996541.55 0.00220
313871.45 3996541.55 0.00207 313891.45
3996541.55 0.00194
313911.45 3996541.55 0.00181 313931.45
3996541.55 0.00169
313951.45 3996541.55 0.00157 313971.45
3996541.55 0.00145
313991.45 3996541.55 0.00135 314011.45
3996541.55 0.00125
314031.45 3996541.55 0.00116 314051.45
3996541.55 0.00107
314071.45 3996541.55 0.00100 314091.45
3996541.55 0.00093
314111.45 3996541.55 0.00087 314131.45
3996541.55 0.00082
314151.45 3996541.55 0.00077 314171.45
3996541.55 0.00072
314191.45 3996541.55 0.00068 314211.45
3996541.55 0.00064
314231.45 3996541.55 0.00061 314251.45
3996541.55 0.00058
314271.45 3996541.55 0.00055 313791.45
3996561.55 0.00240
313811.45 3996561.55 0.00229 313831.45
3996561.55 0.00218
313851.45 3996561.55 0.00206 313871.45
3996561.55 0.00194
313891.45 3996561.55 0.00183 313911.45
3996561.55 0.00171
313931.45 3996561.55 0.00160 313951.45
3996561.55 0.00149
313971.45 3996561.55 0.00138 313991.45
3996561.55 0.00129
314011.45 3996561.55 0.00120 314031.45
3996561.55 0.00111
314051.45 3996561.55 0.00103 314071.45

3996561.55 0.00096
314091.45 3996561.55 0.00090 314111.45
3996561.55 0.00084
314131.45 3996561.55 0.00079 314151.45
3996561.55 0.00074
314171.45 3996561.55 0.00070 314191.45
3996561.55 0.00066
314211.45 3996561.55 0.00063 314231.45
3996561.55 0.00059
314251.45 3996561.55 0.00056 314271.45
3996561.55 0.00054
313791.45 3996581.55 0.00225 313811.45
3996581.55 0.00215
313831.45 3996581.55 0.00204 313851.45
3996581.55 0.00194
313871.45 3996581.55 0.00183 313891.45
3996581.55 0.00173
313911.45 3996581.55 0.00162 313931.45
3996581.55 0.00152
313951.45 3996581.55 0.00142 313971.45
3996581.55 0.00132
313991.45 3996581.55 0.00123 314011.45
3996581.55 0.00115
314031.45 3996581.55 0.00107 314051.45
3996581.55 0.00100

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC X-COORD (M) Y-COORD (M) CONC
- -
314071.45 3996581.55 0.00093 314091.45
3996581.55 0.00087
314111.45 3996581.55 0.00082 314131.45

```
3996581.55        0.00077
         314151.45    3996581.55        0.00072                       314171.45
3996581.55        0.00068
         314191.45    3996581.55        0.00065                       314211.45
3996581.55        0.00061
         314231.45    3996581.55        0.00058                       314251.45
3996581.55        0.00055
         314271.45    3996581.55        0.00053                       313529.06
3996060.33        0.01095
         313510.22    3996059.07        0.00965                       313491.38
3996062.84        0.00864
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\LombardiPortervilleMitigated\LombardiPortervill ***        07/23/21
 *** AERMET - VERSION  18081 ***   ***
                       ***        10:19:35

                                  PAGE  54
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA1      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        313271.45   3995341.55        0.02538  (08120324)                313291.45
3995341.55        0.02606  (08120324)
        313311.45   3995341.55        0.02661  (07021304)                313331.45
3995341.55        0.02725  (06010506)
        313351.45   3995341.55        0.02798  (10010108)                313371.45
3995341.55        0.02864  (09121623)
        313391.45   3995341.55        0.02953  (07121805)                313411.45
3995341.55        0.03004  (07121805)
        313431.45   3995341.55        0.03002  (07121805)                313451.45
3995341.55        0.02961  (06013119)
        313471.45   3995341.55        0.03025  (09012118)                313491.45
3995341.55        0.03037  (09012118)
        313511.45   3995341.55        0.03013  (09022819)                313531.45
3995341.55        0.03108  (09022819)
        313551.45   3995341.55        0.03139  (09022819)                313571.45
3995341.55        0.03133  (07022019)
        313591.45   3995341.55        0.03107  (07022019)                313611.45
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3995341.55 0.03111 (06121917)
313631.45 3995341.55 0.03085 (06121917) 313651.45
3995341.55 0.03059 (08120422)
313671.45 3995341.55 0.03058 (08012617) 313691.45
3995341.55 0.03041 (08012617)
313711.45 3995341.55 0.03016 (09010717) 313731.45
3995341.55 0.03004 (08120519)
313751.45 3995341.55 0.03019 (07022819) 313771.45
3995341.55 0.03049 (07022819)
313791.45 3995341.55 0.03082 (07022819) 313811.45
3995341.55 0.03115 (07022819)
313831.45 3995341.55 0.03140 (06120717) 313851.45
3995341.55 0.03199 (06120717)
313871.45 3995341.55 0.03234 (06120717) 313891.45
3995341.55 0.03228 (06120717)
313911.45 3995341.55 0.03201 (07022520) 313931.45
3995341.55 0.03233 (07022520)
313951.45 3995341.55 0.03211 (07022520) 313971.45
3995341.55 0.03207 (06121719)
313991.45 3995341.55 0.03201 (09010318) 314011.45
3995341.55 0.03182 (07021419)
314031.45 3995341.55 0.03160 (07022018) 314051.45
3995341.55 0.03109 (07022018)
314071.45 3995341.55 0.03064 (06021018) 314091.45
3995341.55 0.02980 (06021018)
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3995341.55 0.02880 (08011207)
314151.45 3995341.55 0.02834 (07021118) 314171.45
3995341.55 0.02752 (07021118)
314191.45 3995341.55 0.02685 (06011120) 314211.45
3995341.55 0.02616 (09020520)
314231.45 3995341.55 0.02550 (09020520) 314251.45
3995341.55 0.02468 (08012217)
314271.45 3995341.55 0.02412 (08012217) 313271.45
3995361.55 0.02572 (08022322)
313291.45 3995361.55 0.02638 (08120324) 313311.45
3995361.55 0.02706 (08120324)
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3995361.55 0.02837 (06010506)
313371.45 3995361.55 0.02920 (10010108) 313391.45
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3995361.55 0.03115 (07121805)
313451.45 3995361.55 0.03088 (07121805) 313471.45
3995361.55 0.03108 (09012118)
313491.45 3995361.55 0.03145 (09012118) 313511.45
3995361.55 0.03123 (09012118)
313531.45 3995361.55 0.03193 (09022819) 313551.45
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313571.45 3995361.55 0.03234 (07022019) 313591.45

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3995361.55        0.03216  (07022019)
        313611.45   3995361.55        0.03210  (06121917)                313631.45
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        313651.45   3995361.55        0.03152  (08120422)                313671.45
3995361.55        0.03148  (08012617)
        313691.45   3995361.55        0.03126  (08012617)                313711.45
3995361.55        0.03097  (09010717)
        313731.45   3995361.55        0.03083  (08120519)                313751.45
3995361.55        0.03101  (07022819)
        313771.45   3995361.55        0.03130  (07022819)                313791.45
3995361.55        0.03165  (07022819)
        313811.45   3995361.55        0.03202  (07022819)                313831.45
3995361.55        0.03233  (06120717)
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA1      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        313851.45   3995361.55        0.03296  (06120717)                313871.45
3995361.55        0.03334  (06120717)
        313891.45   3995361.55        0.03328  (06120717)                313911.45
3995361.55        0.03311  (07022520)
        313931.45   3995361.55        0.03337  (07022520)                313951.45
3995361.55        0.03304  (07022520)
        313971.45   3995361.55        0.03310  (06121719)                313991.45
3995361.55        0.03302  (09010318)
        314011.45   3995361.55        0.03280  (07021419)                314031.45
3995361.55        0.03256  (07022018)
        314051.45   3995361.55        0.03191  (06021018)                314071.45
3995361.55        0.03137  (06021018)
        314091.45   3995361.55        0.03060  (09121517)                314111.45
3995361.55        0.03004  (09121517)
        314131.45   3995361.55        0.02954  (07021118)                314151.45
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3995361.55 0.02561 (09020520)
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3995361.55 0.02430 (09010224)
313271.45 3995381.55 0.02592 (08022322) 313291.45
3995381.55 0.02670 (08022322)
313311.45 3995381.55 0.02745 (08120324) 313331.45
3995381.55 0.02814 (07021304)
313351.45 3995381.55 0.02884 (06010506) 313371.45
3995381.55 0.02965 (10010108)
313391.45 3995381.55 0.03048 (10010108) 313411.45
3995381.55 0.03149 (07121805)
313431.45 3995381.55 0.03217 (07121805) 313451.45
3995381.55 0.03223 (07121805)
313471.45 3995381.55 0.03185 (09012118) 313491.45
3995381.55 0.03251 (09012118)
313511.45 3995381.55 0.03252 (09012118) 313531.45
3995381.55 0.03279 (09022819)
313551.45 3995381.55 0.03347 (09022819) 313571.45
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313591.45 3995381.55 0.03332 (07022019) 313611.45
3995381.55 0.03316 (06121917)
313631.45 3995381.55 0.03292 (06121917) 313651.45
3995381.55 0.03253 (08120422)
313671.45 3995381.55 0.03245 (08012617) 313691.45
3995381.55 0.03217 (08012617)
313711.45 3995381.55 0.03183 (09010717) 313731.45
3995381.55 0.03166 (08120519)
313751.45 3995381.55 0.03187 (07022819) 313771.45
3995381.55 0.03214 (07022819)
313791.45 3995381.55 0.03252 (07022819) 313811.45
3995381.55 0.03296 (07022819)
313831.45 3995381.55 0.03332 (06120717) 313851.45
3995381.55 0.03401 (06120717)
313871.45 3995381.55 0.03442 (06120717) 313891.45
3995381.55 0.03434 (06120717)
313911.45 3995381.55 0.03428 (07022520) 313931.45
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313951.45 3995381.55 0.03419 (06121719) 313971.45
3995381.55 0.03419 (09010318)
313991.45 3995381.55 0.03405 (09010318) 314011.45
3995381.55 0.03387 (07022018)
314031.45 3995381.55 0.03347 (07022018) 314051.45
3995381.55 0.03289 (06021018)
314071.45 3995381.55 0.03199 (06021018) 314091.45
3995381.55 0.03147 (09121517)
314111.45 3995381.55 0.03079 (07021118) 314131.45

3995381.55   0.03017 (07021118)
        314151.45   3995381.55   0.02915 (06011120)   314171.45
3995381.55   0.02840 (06011120)
        314191.45   3995381.55   0.02765 (09020520)   314211.45
3995381.55   0.02671 (09020520)
        314231.45   3995381.55   0.02599 (08012217)   314251.45
3995381.55   0.02521 (09010224)
        314271.45   3995381.55   0.02450 (06022319)   313271.45
3995401.55   0.02599 (07021120)
        313291.45   3995401.55   0.02694 (08022322)   313311.45
3995401.55   0.02776 (08022322)
        313331.45   3995401.55   0.02860 (08120324)   313351.45
3995401.55   0.02936 (07021304)
        313371.45   3995401.55   0.03016 (06010506)   313391.45
3995401.55   0.03109 (10010108)

*** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

      X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
 -
        313411.45   3995401.55   0.03199 (09121623)   313431.45
3995401.55   0.03304 (07121805)
        313451.45   3995401.55   0.03350 (07121805)   313471.45
3995401.55   0.03328 (07121805)
        313491.45   3995401.55   0.03354 (09012118)   313511.45
3995401.55   0.03382 (09012118)
        313531.45   3995401.55   0.03366 (09022819)   313551.45
3995401.55   0.03457 (09022819)
        313571.45   3995401.55   0.03472 (09022819)   313591.45
3995401.55   0.03456 (07022019)
        313611.45   3995401.55   0.03431 (06121917)   313631.45
3995401.55   0.03409 (06121917)
        313651.45   3995401.55   0.03362 (08120422)   313671.45

3995401.55 0.03349 (08012617)
313691.45 3995401.55 0.03315 (08012617) 313711.45
3995401.55 0.03275 (09010717)
313731.45 3995401.55 0.03261 (07022819) 313751.45
3995401.55 0.03277 (07022819)
313771.45 3995401.55 0.03303 (07022819) 313791.45
3995401.55 0.03346 (07022819)
313811.45 3995401.55 0.03396 (07022819) 313831.45
3995401.55 0.03439 (06120717)
313851.45 3995401.55 0.03515 (06120717) 313871.45
3995401.55 0.03559 (06120717)
313891.45 3995401.55 0.03550 (06120717) 313911.45
3995401.55 0.03553 (07022520)
313931.45 3995401.55 0.03565 (07022520) 313951.45
3995401.55 0.03546 (06121719)
313971.45 3995401.55 0.03546 (09010318) 313991.45
3995401.55 0.03529 (07021419)
314011.45 3995401.55 0.03506 (07022018) 314031.45
3995401.55 0.03434 (06021018)
314051.45 3995401.55 0.03379 (06021018) 314071.45
3995401.55 0.03291 (09121517)
314091.45 3995401.55 0.03218 (08011207) 314111.45
3995401.55 0.03161 (07021118)
314131.45 3995401.55 0.03059 (07021118) 314151.45
3995401.55 0.02971 (09120417)
314171.45 3995401.55 0.02886 (09020520) 314191.45
3995401.55 0.02789 (09020520)
314211.45 3995401.55 0.02704 (08012217) 314231.45
3995401.55 0.02619 (09010224)
314251.45 3995401.55 0.02542 (06022319) 314271.45
3995401.55 0.02481 (06022319)
313271.45 3995421.55 0.02625 (07021120) 313291.45
3995421.55 0.02698 (07021120)
313311.45 3995421.55 0.02804 (08022322) 313331.45
3995421.55 0.02891 (08022322)
313351.45 3995421.55 0.02986 (08120324) 313371.45
3995421.55 0.03067 (07021304)
313391.45 3995421.55 0.03159 (06010506) 313411.45
3995421.55 0.03263 (10010108)
313431.45 3995421.55 0.03373 (07121805) 313451.45
3995421.55 0.03463 (07121805)
313471.45 3995421.55 0.03482 (07121805) 313491.45
3995421.55 0.03452 (09012118)
313511.45 3995421.55 0.03513 (09012118) 313531.45
3995421.55 0.03499 (09012118)
313551.45 3995421.55 0.03571 (09022819) 313571.45
3995421.55 0.03604 (09022819)
313591.45 3995421.55 0.03588 (07022019) 313611.45
3995421.55 0.03555 (06121917)
313631.45 3995421.55 0.03535 (06121917) 313651.45

3995421.55   0.03482 (08120422)
        313671.45   3995421.55   0.03464 (08012617)   313691.45
3995421.55   0.03421 (08012617)
        313711.45   3995421.55   0.03374 (09010717)   313731.45
3995421.55   0.03364 (07022819)
        313751.45   3995421.55   0.03374 (07022819)   313771.45
3995421.55   0.03398 (07022819)
        313791.45   3995421.55   0.03446 (07022819)   313811.45
3995421.55   0.03505 (07022819)
        313831.45   3995421.55   0.03556 (06120717)   313851.45
3995421.55   0.03640 (06120717)
        313871.45   3995421.55   0.03686 (06120717)   313891.45
3995421.55   0.03674 (06120717)
        313911.45   3995421.55   0.03688 (07022520)   313931.45
3995421.55   0.03691 (07022520)
        313951.45   3995421.55   0.03680 (06121719)   313971.45
3995421.55   0.03677 (09010318)

*** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

      X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
 -
        313991.45   3995421.55   0.03654 (07021419)   314011.45
3995421.55   0.03623 (07022018)
        314031.45   3995421.55   0.03554 (06021018)   314051.45
3995421.55   0.03457 (06021018)
        314071.45   3995421.55   0.03388 (09121517)   314091.45
3995421.55   0.03313 (07021118)
        314111.45   3995421.55   0.03221 (07021118)   314131.45
3995421.55   0.03114 (09120417)
        314151.45   3995421.55   0.03018 (09020520)   314171.45
3995421.55   0.02917 (09020520)
        314191.45   3995421.55   0.02819 (08012217)   314211.45

3995421.55 0.02726 (09010224)
314231.45 3995421.55 0.02642 (06022319) 314251.45
3995421.55 0.02573 (06022319)
314271.45 3995421.55 0.02502 (09020218) 313271.45
3995441.55 0.02636 (06010119)
313291.45 3995441.55 0.02725 (07021120) 313311.45
3995441.55 0.02810 (08022322)
313331.45 3995441.55 0.02923 (08022322) 313351.45
3995441.55 0.03017 (08022322)
313371.45 3995441.55 0.03123 (08120324) 313391.45
3995441.55 0.03211 (07021304)
313411.45 3995441.55 0.03320 (10010108) 313431.45
3995441.55 0.03430 (09121623)
313451.45 3995441.55 0.03560 (07121805) 313471.45
3995441.55 0.03626 (07121805)
313491.45 3995441.55 0.03611 (07121805) 313511.45
3995441.55 0.03642 (09012118)
313531.45 3995441.55 0.03658 (09012118) 313551.45
3995441.55 0.03691 (09022819)
313571.45 3995441.55 0.03745 (09022819) 313591.45
3995441.55 0.03730 (07022019)
313611.45 3995441.55 0.03689 (06121917) 313631.45
3995441.55 0.03674 (06121917)
313651.45 3995441.55 0.03612 (08120422) 313671.45
3995441.55 0.03589 (08012617)
313691.45 3995441.55 0.03537 (08012617) 313711.45
3995441.55 0.03481 (08120519)
313731.45 3995441.55 0.03474 (07022819) 313751.45
3995441.55 0.03476 (07022819)
313771.45 3995441.55 0.03500 (07022819) 313791.45
3995441.55 0.03553 (07022819)
313811.45 3995441.55 0.03623 (07022819) 313831.45
3995441.55 0.03684 (06120717)
313851.45 3995441.55 0.03776 (06120717) 313871.45
3995441.55 0.03825 (06120717)
313891.45 3995441.55 0.03810 (06120717) 313911.45
3995441.55 0.03834 (07022520)
313931.45 3995441.55 0.03826 (07022520) 313951.45
3995441.55 0.03822 (06121719)
313971.45 3995441.55 0.03814 (09010318) 313991.45
3995441.55 0.03794 (07022018)
314011.45 3995441.55 0.03737 (07022018) 314031.45
3995441.55 0.03665 (06021018)
314051.45 3995441.55 0.03564 (09121517) 314071.45
3995441.55 0.03477 (08011207)
314091.45 3995441.55 0.03396 (07021118) 314111.45
3995441.55 0.03270 (09120417)
314131.45 3995441.55 0.03162 (09020520) 314151.45
3995441.55 0.03058 (09020520)
314171.45 3995441.55 0.02944 (08012217) 314191.45

3995441.55   0.02842 (09010224)
        314211.45   3995441.55   0.02750 (06022319)   314231.45
3995441.55   0.02672 (09020218)
        314251.45   3995441.55   0.02594 (09020218)   314271.45
3995441.55   0.02504 (09012502)
        313271.45   3995461.55   0.02649 (09012119)   313291.45
3995461.55   0.02736 (06010119)
        313311.45   3995461.55   0.02833 (07021120)   313331.45
3995461.55   0.02932 (08022322)
        313351.45   3995461.55   0.03055 (08022322)   313371.45
3995461.55   0.03162 (08120324)
        313391.45   3995461.55   0.03275 (08120324)   313411.45
3995461.55   0.03381 (06010506)
        313431.45   3995461.55   0.03507 (10010108)   313451.45
3995461.55   0.03636 (07121805)
        313471.45   3995461.55   0.03755 (07121805)   313491.45
3995461.55   0.03788 (07121805)
        313511.45   3995461.55   0.03768 (09012118)   313531.45
3995461.55   0.03821 (09012118)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

      X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
 -
        313551.45   3995461.55   0.03816 (09022819)   313571.45
3995461.55   0.03894 (09022819)
        313591.45   3995461.55   0.03887 (09022819)   313611.45
3995461.55   0.03852 (07022019)
        313631.45   3995461.55   0.03826 (06121917)   313651.45
3995461.55   0.03757 (08120422)
        313671.45   3995461.55   0.03727 (08012617)   313691.45
3995461.55   0.03663 (08012617)
        313711.45   3995461.55   0.03603 (07022819)   313731.45

3995461.55 0.03592 (07022819)
313751.45 3995461.55 0.03584 (07022819) 313771.45
3995461.55 0.03608 (07022819)
313791.45 3995461.55 0.03670 (07022819) 313811.45
3995461.55 0.03753 (07022819)
313831.45 3995461.55 0.03826 (06120717) 313851.45
3995461.55 0.03927 (06120717)
313871.45 3995461.55 0.03977 (06120717) 313891.45
3995461.55 0.03958 (06120717)
313911.45 3995461.55 0.03991 (07022520) 313931.45
3995461.55 0.03972 (07022520)
313951.45 3995461.55 0.03980 (09010318) 313971.45
3995461.55 0.03970 (07021419)
313991.45 3995461.55 0.03946 (07022018) 314011.45
3995461.55 0.03869 (06021018)
314031.45 3995461.55 0.03766 (06021018) 314051.45
3995461.55 0.03675 (09121517)
314071.45 3995461.55 0.03585 (07021118) 314091.45
3995461.55 0.03452 (07021118)
314111.45 3995461.55 0.03331 (09120417) 314131.45
3995461.55 0.03214 (09020520)
314151.45 3995461.55 0.03083 (08012217) 314171.45
3995461.55 0.02971 (08012217)
314191.45 3995461.55 0.02868 (06022319) 314211.45
3995461.55 0.02781 (09020218)
314231.45 3995461.55 0.02692 (09020218) 314251.45
3995461.55 0.02596 (09012502)
314271.45 3995461.55 0.02511 (09012502) 313271.45
3995481.55 0.02655 (09012119)
313291.45 3995481.55 0.02747 (09012119) 313311.45
3995481.55 0.02843 (06010119)
313331.45 3995481.55 0.02952 (07021120) 313351.45
3995481.55 0.03066 (08022322)
313371.45 3995481.55 0.03199 (08022322) 313391.45
3995481.55 0.03323 (08120324)
313411.45 3995481.55 0.03445 (07021304) 313431.45
3995481.55 0.03571 (06010506)
313451.45 3995481.55 0.03711 (10010108) 313471.45
3995481.55 0.03865 (07121805)
313491.45 3995481.55 0.03956 (07121805) 313511.45
3995481.55 0.03950 (07121805)
313531.45 3995481.55 0.03986 (09012118) 313551.45
3995481.55 0.03984 (09012118)
313571.45 3995481.55 0.04053 (09022819) 313591.45
3995481.55 0.04064 (09022819)
313611.45 3995481.55 0.04030 (07022019) 313631.45
3995481.55 0.03993 (06121917)
313651.45 3995481.55 0.03922 (06121917) 313671.45
3995481.55 0.03881 (08012617)
313691.45 3995481.55 0.03804 (08012617) 313711.45

```
3995481.55        0.03747  (07022819)
        313731.45   3995481.55        0.03719  (07022819)                313751.45
3995481.55        0.03701  (07022819)
        313771.45   3995481.55        0.03726  (07022819)                313791.45
3995481.55        0.03797  (07022819)
        313811.45   3995481.55        0.03896  (07022819)                313831.45
3995481.55        0.03984  (06120717)
        313851.45   3995481.55        0.04094  (06120717)                313871.45
3995481.55        0.04145  (06120717)
        313891.45   3995481.55        0.04123  (07022520)                313911.45
3995481.55        0.04162  (07022520)
        313931.45   3995481.55        0.04146  (06121719)                313951.45
3995481.55        0.04156  (09010318)
        313971.45   3995481.55        0.04139  (07021419)                313991.45
3995481.55        0.04100  (07022018)
        314011.45   3995481.55        0.04014  (06021018)                314031.45
3995481.55        0.03893  (09121517)
        314051.45   3995481.55        0.03789  (07021118)                314071.45
3995481.55        0.03668  (07021118)
        314091.45   3995481.55        0.03522  (09120417)                314111.45
3995481.55        0.03387  (09020520)
```



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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA1      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                  **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
        314131.45   3995481.55        0.03237  (08012217)                314151.45
3995481.55        0.03114  (08012217)
        314171.45   3995481.55        0.02997  (06022319)                314191.45
3995481.55        0.02900  (09020218)
        314211.45   3995481.55        0.02799  (09020218)                314231.45
3995481.55        0.02694  (09012502)
        314251.45   3995481.55        0.02599  (09012502)                314271.45
```

3995481.55 0.02507 (09010522)
313271.45 3995501.55 0.02646 (09012119) 313291.45
3995501.55 0.02751 (09012119)
313311.45 3995501.55 0.02853 (09012119) 313331.45
3995501.55 0.02959 (06010119)
313351.45 3995501.55 0.03081 (07021120) 313371.45
3995501.55 0.03213 (08022322)
313391.45 3995501.55 0.03361 (08022322) 313411.45
3995501.55 0.03504 (08120324)
313431.45 3995501.55 0.03640 (07021304) 313451.45
3995501.55 0.03786 (10010108)
313471.45 3995501.55 0.03948 (07121805) 313491.45
3995501.55 0.04109 (07121805)
313511.45 3995501.55 0.04162 (07121805) 313531.45
3995501.55 0.04153 (09012118)
313551.45 3995501.55 0.04189 (09012118) 313571.45
3995501.55 0.04224 (09022819)
313591.45 3995501.55 0.04256 (09022819) 313611.45
3995501.55 0.04224 (07022019)
313631.45 3995501.55 0.04180 (06121917) 313651.45
3995501.55 0.04110 (06121917)
313671.45 3995501.55 0.04055 (08012617) 313691.45
3995501.55 0.03961 (09010717)
313711.45 3995501.55 0.03904 (07022819) 313731.45
3995501.55 0.03855 (07022819)
313751.45 3995501.55 0.03828 (07022819) 313771.45
3995501.55 0.03854 (07022819)
313791.45 3995501.55 0.03937 (07022819) 313811.45
3995501.55 0.04055 (07022819)
313831.45 3995501.55 0.04162 (06120717) 313851.45
3995501.55 0.04283 (06120717)
313871.45 3995501.55 0.04332 (06120717) 313891.45
3995501.55 0.04320 (07022520)
313911.45 3995501.55 0.04349 (07022520) 313931.45
3995501.55 0.04340 (06121719)
313951.45 3995501.55 0.04346 (09010318) 313971.45
3995501.55 0.04332 (07022018)
313991.45 3995501.55 0.04256 (06021018) 314011.45
3995501.55 0.04149 (06021018)
314031.45 3995501.55 0.04025 (09121517) 314051.45
3995501.55 0.03906 (07021118)
314071.45 3995501.55 0.03735 (09120417) 314091.45
3995501.55 0.03582 (09020520)
314111.45 3995501.55 0.03415 (09020520) 314131.45
3995501.55 0.03272 (08012217)
314151.45 3995501.55 0.03139 (06022319) 314171.45
3995501.55 0.03029 (09020218)
314191.45 3995501.55 0.02914 (09020218) 314211.45
3995501.55 0.02799 (09012502)
314231.45 3995501.55 0.02692 (09012502) 314251.45

3995501.55   0.02595 (06020508)
        314271.45   3995501.55   0.02519 (07021518)   313271.45
3995521.55   0.02642 (09020219)
        313291.45   3995521.55   0.02740 (09012119)   313311.45
3995521.55   0.02854 (09012119)
        313331.45   3995521.55   0.02967 (09012119)   313351.45
3995521.55   0.03087 (06010119)
        313371.45   3995521.55   0.03224 (07021120)   313391.45
3995521.55   0.03377 (08022322)
        313411.45   3995521.55   0.03542 (08022322)   313431.45
3995521.55   0.03709 (08120324)
        313451.45   3995521.55   0.03862 (07021304)   313471.45
3995521.55   0.04045 (10010108)
        313491.45   3995521.55   0.04239 (07121805)   313511.45
3995521.55   0.04367 (07121805)
        313531.45   3995521.55   0.04369 (07121805)   313551.45
3995521.55   0.04405 (09012118)
        313571.45   3995521.55   0.04412 (09022819)   313591.45
3995521.55   0.04464 (09022819)
        313611.45   3995521.55   0.04438 (07022019)   313631.45
3995521.55   0.04388 (06121917)
        313651.45   3995521.55   0.04324 (06121917)   313671.45
3995521.55   0.04252 (08012617)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

      X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
 -
        313691.45   3995521.55   0.04140 (09010717)   313711.45
3995521.55   0.04077 (07022819)
        313731.45   3995521.55   0.04003 (07022819)   313751.45
3995521.55   0.03966 (07022819)
        313771.45   3995521.55   0.03994 (07022819)   313791.45

3995521.55 0.04092 (07022819)
313811.45 3995521.55 0.04235 (07022819) 313831.45
3995521.55 0.04364 (06120717)
313851.45 3995521.55 0.04496 (06120717) 313871.45
3995521.55 0.04541 (06120717)
313891.45 3995521.55 0.04539 (07022520) 313911.45
3995521.55 0.04557 (07022520)
313931.45 3995521.55 0.04553 (06121719) 313951.45
3995521.55 0.04560 (07021419)
313971.45 3995521.55 0.04544 (07022018) 313991.45
3995521.55 0.04451 (06021018)
314011.45 3995521.55 0.04305 (09121517) 314031.45
3995521.55 0.04172 (07021118)
314051.45 3995521.55 0.03986 (07021118) 314071.45
3995521.55 0.03804 (09020520)
314091.45 3995521.55 0.03621 (09020520) 314111.45
3995521.55 0.03450 (08012217)
314131.45 3995521.55 0.03297 (06022319) 314151.45
3995521.55 0.03170 (09020218)
314171.45 3995521.55 0.03040 (09020218) 314191.45
3995521.55 0.02912 (09012502)
314211.45 3995521.55 0.02792 (09012502) 314231.45
3995521.55 0.02691 (06020508)
314251.45 3995521.55 0.02611 (07021518) 314271.45
3995521.55 0.02531 (07021518)
313271.45 3995541.55 0.02630 (08122502) 313291.45
3995541.55 0.02733 (09020219)
313311.45 3995541.55 0.02841 (09012119) 313331.45
3995541.55 0.02966 (09012119)
313351.45 3995541.55 0.03092 (09012119) 313371.45
3995541.55 0.03227 (06010119)
313391.45 3995541.55 0.03382 (07021120) 313411.45
3995541.55 0.03561 (08022322)
313431.45 3995541.55 0.03749 (08022322) 313451.45
3995541.55 0.03945 (08120324)
313471.45 3995541.55 0.04132 (06010506) 313491.45
3995541.55 0.04340 (10010108)
313511.45 3995541.55 0.04558 (07121805) 313531.45
3995541.55 0.04633 (07121805)
313551.45 3995541.55 0.04634 (09012118) 313571.45
3995541.55 0.04642 (09012118)
313591.45 3995541.55 0.04695 (09022819) 313611.45
3995541.55 0.04685 (09022819)
313631.45 3995541.55 0.04631 (07022019) 313651.45
3995541.55 0.04569 (06121917)
313671.45 3995541.55 0.04481 (08012617) 313691.45
3995541.55 0.04347 (09010717)
313711.45 3995541.55 0.04269 (07022819) 313731.45
3995541.55 0.04164 (07022819)
313751.45 3995541.55 0.04119 (07022819) 313771.45

3995541.55 0.04151 (07022819)
313791.45 3995541.55 0.04264 (07022819) 313811.45
3995541.55 0.04440 (07022819)
313831.45 3995541.55 0.04600 (06120717) 313851.45
3995541.55 0.04741 (06120717)
313871.45 3995541.55 0.04778 (06120717) 313891.45
3995541.55 0.04784 (07022520)
313911.45 3995541.55 0.04791 (07022520) 313931.45
3995541.55 0.04803 (09010318)
313951.45 3995541.55 0.04808 (07021419) 313971.45
3995541.55 0.04772 (07022018)
313991.45 3995541.55 0.04646 (06021018) 314011.45
3995541.55 0.04471 (09121517)
314031.45 3995541.55 0.04296 (07021118) 314051.45
3995541.55 0.04071 (09120417)
314071.45 3995541.55 0.03857 (09020520) 314091.45
3995541.55 0.03652 (08012217)
314111.45 3995541.55 0.03474 (06022319) 314131.45
3995541.55 0.03327 (09020218)
314151.45 3995541.55 0.03177 (09020218) 314171.45
3995541.55 0.03034 (09012502)
314191.45 3995541.55 0.02901 (09012502) 314211.45
3995541.55 0.02796 (07021518)
314231.45 3995541.55 0.02706 (07021518) 314251.45
3995541.55 0.02615 (07021518)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH) X-COORD (M) Y-COORD (M) CONC (YYMMDDHH)
- -
314271.45 3995541.55 0.02528 (09011917) 313271.45
3995561.55 0.02613 (08122502)
313291.45 3995561.55 0.02718 (08122502) 313311.45

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3995561.55         0.02831  (09020219)
        313331.45   3995561.55        0.02950  (09012119)                313351.45
3995561.55         0.03087  (09012119)
        313371.45   3995561.55        0.03228  (09012119)                313391.45
3995561.55         0.03382  (06010119)
        313411.45   3995561.55        0.03560  (07021120)                313431.45
3995561.55         0.03771  (08022322)
        313451.45   3995561.55        0.03989  (08022322)                313471.45
3995561.55         0.04222  (08120324)
        313491.45   3995561.55        0.04451  (10010108)                313511.45
3995561.55         0.04721  (07121805)
        313531.45   3995561.55        0.04902  (07121805)                313551.45
3995561.55         0.04906  (07121805)
        313571.45   3995561.55        0.04930  (09012118)                313591.45
3995561.55         0.04956  (09022819)
        313611.45   3995561.55        0.04964  (09022819)                313631.45
3995561.55         0.04920  (07022019)
        313651.45   3995561.55        0.04854  (06121917)                313671.45
3995561.55         0.04751  (08012617)
        313691.45   3995561.55        0.04609  (07022819)                313711.45
3995561.55         0.04484  (07022819)
        313731.45   3995561.55        0.04341  (07022819)                313751.45
3995561.55         0.04292  (07022819)
        313771.45   3995561.55        0.04327  (07022819)                313791.45
3995561.55         0.04457  (07022819)
        313811.45   3995561.55        0.04678  (07022819)                313831.45
3995561.55         0.04879  (06120717)
        313851.45   3995561.55        0.05024  (06120717)                313871.45
3995561.55         0.05050  (06120717)
        313891.45   3995561.55        0.05063  (07022520)                313911.45
3995561.55         0.05061  (07022520)
        313931.45   3995561.55        0.05089  (09010318)                313951.45
3995561.55         0.05100  (07022018)
        313971.45   3995561.55        0.05029  (06021018)                313991.45
3995561.55         0.04854  (09121517)
        314011.45   3995561.55        0.04661  (07021118)                314031.45
3995561.55         0.04392  (09120417)
        314051.45   3995561.55        0.04134  (09020520)                314071.45
3995561.55         0.03884  (08012217)
        314091.45   3995561.55        0.03674  (06022319)                314111.45
3995561.55         0.03501  (09020218)
        314131.45   3995561.55        0.03329  (09020218)                314151.45
3995561.55         0.03167  (09012502)
        314171.45   3995561.55        0.03018  (09012502)                314191.45
3995561.55         0.02910  (07021518)
        314211.45   3995561.55        0.02805  (07021518)                314231.45
3995561.55         0.02703  (07021518)
        314251.45   3995561.55        0.02610  (09011917)                314271.45
3995561.55         0.02521  (09011917)
        313271.45   3995581.55        0.02592  (07012802)                313291.45
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3995581.55 0.02700 (08122502)
313311.45 3995581.55 0.02814 (08122502) 313331.45
3995581.55 0.02937 (09020219)
313351.45 3995581.55 0.03070 (09012119) 313371.45
3995581.55 0.03220 (09012119)
313391.45 3995581.55 0.03378 (09012119) 313411.45
3995581.55 0.03556 (07021120)
313431.45 3995581.55 0.03761 (07021120) 313451.45
3995581.55 0.04012 (08022322)
313471.45 3995581.55 0.04277 (08120324) 313491.45
3995581.55 0.04559 (07021304)
313511.45 3995581.55 0.04861 (10010108) 313531.45
3995581.55 0.05167 (07121805)
313551.45 3995581.55 0.05264 (07121805) 313571.45
3995581.55 0.05257 (09012118)
313591.45 3995581.55 0.05259 (09022819) 313611.45
3995581.55 0.05283 (09022819)
313631.45 3995581.55 0.05255 (09022819) 313651.45
3995581.55 0.05189 (06121917)
313671.45 3995581.55 0.05080 (08120422) 313691.45
3995581.55 0.04926 (07022819)
313711.45 3995581.55 0.04727 (07022819) 313731.45
3995581.55 0.04535 (07022819)
313751.45 3995581.55 0.04492 (07022819) 313771.45
3995581.55 0.04529 (07022819)
313791.45 3995581.55 0.04674 (07022819) 313811.45
3995581.55 0.04963 (07022819)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH) X-COORD (M) Y-COORD (M) CONC (YYMMDDHH)
- -
313831.45 3995581.55 0.05217 (06120717) 313851.45

3995581.55 0.05358 (06120717)
313871.45 3995581.55 0.05370 (06120717) 313891.45
3995581.55 0.05389 (07022520)
313911.45 3995581.55 0.05392 (09010318) 313931.45
3995581.55 0.05427 (09010318)
313951.45 3995581.55 0.05449 (07022018) 313971.45
3995581.55 0.05340 (06021018)
313991.45 3995581.55 0.05099 (07021118) 314011.45
3995581.55 0.04786 (07021118)
314031.45 3995581.55 0.04467 (09020520) 314051.45
3995581.55 0.04157 (08012217)
314071.45 3995581.55 0.03903 (06022319) 314091.45
3995581.55 0.03696 (09020218)
314111.45 3995581.55 0.03496 (09020218) 314131.45
3995581.55 0.03313 (09012502)
314151.45 3995581.55 0.03152 (07021518) 314171.45
3995581.55 0.03029 (07021518)
314191.45 3995581.55 0.02910 (07021518) 314211.45
3995581.55 0.02797 (09011917)
314231.45 3995581.55 0.02695 (09011917) 314251.45
3995581.55 0.02597 (06010417)
314271.45 3995581.55 0.02504 (06010417) 313271.45
3995601.55 0.02568 (07012802)
313291.45 3995601.55 0.02678 (07012802) 313311.45
3995601.55 0.02795 (08122502)
313331.45 3995601.55 0.02918 (08122502) 313351.45
3995601.55 0.03053 (09020219)
313371.45 3995601.55 0.03202 (09012119) 313391.45
3995601.55 0.03368 (09012119)
313411.45 3995601.55 0.03546 (09012119) 313431.45
3995601.55 0.03753 (07021120)
313451.45 3995601.55 0.03994 (08022322) 313471.45
3995601.55 0.04296 (08022322)
313491.45 3995601.55 0.04630 (08120324) 313511.45
3995601.55 0.04988 (07021304)
313531.45 3995601.55 0.05396 (07121805) 313551.45
3995601.55 0.05665 (07121805)
313571.45 3995601.55 0.05646 (07121805) 313591.45
3995601.55 0.05640 (09012118)
313611.45 3995601.55 0.05661 (09022819) 313631.45
3995601.55 0.05658 (09022819)
313651.45 3995601.55 0.05599 (07022019) 313671.45
3995601.55 0.05489 (08120422)
313691.45 3995601.55 0.05319 (07022819) 313711.45
3995601.55 0.05001 (07022819)
313731.45 3995601.55 0.04754 (07022819) 313751.45
3995601.55 0.04729 (07022819)
313771.45 3995601.55 0.04765 (07022819) 313791.45
3995601.55 0.04918 (07022819)
313811.45 3995601.55 0.05316 (07022819) 313831.45

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3995601.55        0.05638  (06120717)
        313851.45   3995601.55        0.05757  (06120717)                313871.45
3995601.55        0.05757  (06120717)
        313891.45   3995601.55        0.05783  (07022520)                313911.45
3995601.55        0.05807  (09010318)
        313931.45   3995601.55        0.05848  (07021419)                313951.45
3995601.55        0.05871  (07022018)
        313971.45   3995601.55        0.05669  (09121517)                313991.45
3995601.55        0.05328  (07021118)
        314011.45   3995601.55        0.04884  (09020520)                314031.45
3995601.55        0.04484  (08012217)
        314051.45   3995601.55        0.04170  (09020218)                314071.45
3995601.55        0.03917  (09020218)
        314091.45   3995601.55        0.03685  (09020218)                314111.45
3995601.55        0.03475  (09012502)
        314131.45   3995601.55        0.03298  (07021518)                314151.45
3995601.55        0.03156  (07021518)
        314171.45   3995601.55        0.03022  (07021518)                314191.45
3995601.55        0.02898  (09011917)
        314211.45   3995601.55        0.02785  (09011917)                314231.45
3995601.55        0.02678  (06010417)
        314251.45   3995601.55        0.02584  (09011717)                314271.45
3995601.55        0.02504  (09011717)
        313271.45   3995621.55        0.02563  (06022220)                313291.45
3995621.55        0.02652  (07012802)
        313311.45   3995621.55        0.02770  (07012802)                313331.45
3995621.55        0.02898  (08122502)
        313351.45   3995621.55        0.03033  (09020219)                313371.45
3995621.55        0.03182  (09020219)
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\LombardiPortervilleMitigated\LombardiPortervill ***        07/23/21
 *** AERMET - VERSION  18081 ***   ***
                       ***        10:19:35

                                  PAGE  63
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA1      ,

                                               *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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- -
313391.45 3995621.55 0.03348 (09012119) 313411.45
3995621.55 0.03534 (09012119)
313431.45 3995621.55 0.03735 (09012119) 313451.45
3995621.55 0.03979 (07021120)
313471.45 3995621.55 0.04272 (08022322) 313491.45
3995621.55 0.04638 (08022322)
313511.45 3995621.55 0.05076 (08120324) 313531.45
3995621.55 0.05579 (06010506)
313551.45 3995621.55 0.06105 (07121805) 313571.45
3995621.55 0.06181 (07121805)
313591.45 3995621.55 0.06137 (09012118) 313611.45
3995621.55 0.06129 (09022819)
313631.45 3995621.55 0.06141 (09022819) 313651.45
3995621.55 0.06116 (09022819)
313671.45 3995621.55 0.06016 (06121917) 313691.45
3995621.55 0.05822 (07022819)
313711.45 3995621.55 0.05313 (06120717) 313731.45
3995621.55 0.05012 (07022819)
313751.45 3995621.55 0.05018 (07022819) 313771.45
3995621.55 0.05050 (07022819)
313791.45 3995621.55 0.05190 (07022819) 313811.45
3995621.55 0.05775 (07022819)
313831.45 3995621.55 0.06159 (06120717) 313851.45
3995621.55 0.06238 (06120717)
313871.45 3995621.55 0.06246 (07022520) 313891.45
3995621.55 0.06271 (07022520)
313911.45 3995621.55 0.06321 (09010318) 313931.45
3995621.55 0.06384 (07022018)
313951.45 3995621.55 0.06395 (06021018) 313971.45
3995621.55 0.06071 (07021118)
313991.45 3995621.55 0.05445 (09120417) 314011.45
3995621.55 0.04898 (09020520)
314031.45 3995621.55 0.04486 (09021918) 314051.45
3995621.55 0.04172 (09020218)
314071.45 3995621.55 0.03900 (09020218) 314091.45
3995621.55 0.03657 (09012502)
314111.45 3995621.55 0.03456 (07021518) 314131.45
3995621.55 0.03294 (07021518)
314151.45 3995621.55 0.03144 (07021518) 314171.45
3995621.55 0.03007 (09011917)
314191.45 3995621.55 0.02882 (09011917) 314211.45
3995621.55 0.02765 (06010417)
314231.45 3995621.55 0.02669 (09011717) 314251.45
3995621.55 0.02580 (09011717)
314271.45 3995621.55 0.02494 (09011717) 313271.45
3995641.55 0.02560 (06022220)
313291.45 3995641.55 0.02646 (06022220) 313311.45
3995641.55 0.02743 (07012802)
313331.45 3995641.55 0.02872 (07012802) 313351.45

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3995641.55        0.03012  (08122502)
        313371.45   3995641.55        0.03160  (09020219)                313391.45
3995641.55        0.03324  (09020219)
        313411.45   3995641.55        0.03513  (09012119)                313431.45
3995641.55        0.03722  (09012119)
        313451.45   3995641.55        0.03955  (06010119)                313471.45
3995641.55        0.04244  (07021120)
        313491.45   3995641.55        0.04608  (08022322)                313511.45
3995641.55        0.05061  (08022322)
        313531.45   3995641.55        0.05669  (08120324)                313551.45
3995641.55        0.06466  (07121805)
        313571.45   3995641.55        0.06794  (07121805)                313591.45
3995641.55        0.06724  (07121805)
        313611.45   3995641.55        0.06672  (09012118)                313631.45
3995641.55        0.06651  (09022819)
        313651.45   3995641.55        0.06642  (09022819)                313671.45
3995641.55        0.06568  (07022019)
        313691.45   3995641.55        0.06324  (07022819)                313711.45
3995641.55        0.05573  (06120717)
        313731.45   3995641.55        0.05341  (07022819)                313751.45
3995641.55        0.05374  (07022819)
        313771.45   3995641.55        0.05408  (06120717)                313791.45
3995641.55        0.05488  (07022819)
        313811.45   3995641.55        0.06309  (07022819)                313971.45
3995641.55        0.06227  (09120417)
        313991.45   3995641.55        0.05435  (09020520)                314011.45
3995641.55        0.04877  (09021918)
        314031.45   3995641.55        0.04476  (09020218)                314051.45
3995641.55        0.04152  (09020218)
        314071.45   3995641.55        0.03870  (09020218)                314091.45
3995641.55        0.03633  (07021518)
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\LombardiPortervilleMitigated\LombardiPortervill ***        07/23/21
 *** AERMET - VERSION  18081 ***   ***
                       ***        10:19:35

                                  PAGE  64
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA1      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
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Y-COORD (M)   CONC   (YYMMDDHH)
- -
314111.45   3995641.55   0.03448 (07021518)   314131.45
3995641.55   0.03279 (07021518)
314151.45   3995641.55   0.03126 (09011917)   314171.45
3995641.55   0.02987 (09011917)
314191.45   3995641.55   0.02863 (09011717)   314211.45
3995641.55   0.02758 (09011717)
314231.45   3995641.55   0.02659 (09011717)   314251.45
3995641.55   0.02565 (09022618)
314271.45   3995641.55   0.02484 (09022618)   313271.45
3995661.55   0.02554 (06022220)
313291.45   3995661.55   0.02643 (06022220)   313311.45
3995661.55   0.02737 (06022220)
313331.45   3995661.55   0.02843 (07012802)   313351.45
3995661.55   0.02983 (07012802)
313371.45   3995661.55   0.03137 (08122502)   313391.45
3995661.55   0.03303 (09020219)
313411.45   3995661.55   0.03485 (09020219)   313431.45
3995661.55   0.03701 (09012119)
313451.45   3995661.55   0.03939 (09012119)   313471.45
3995661.55   0.04216 (07021120)
313491.45   3995661.55   0.04564 (07021120)   313511.45
3995661.55   0.05026 (08022322)
313531.45   3995661.55   0.05628 (08120324)   313971.45
3995661.55   0.06188 (09120417)
313991.45   3995661.55   0.05389 (09020520)   314011.45
3995661.55   0.04852 (09020218)
314031.45   3995661.55   0.04455 (09020218)   314051.45
3995661.55   0.04123 (09020218)
314071.45   3995661.55   0.03838 (09012502)   314091.45
3995661.55   0.03622 (07021518)
314111.45   3995661.55   0.03431 (07021518)   314131.45
3995661.55   0.03258 (09011917)
314151.45   3995661.55   0.03103 (09011917)   314171.45
3995661.55   0.02969 (09011717)
314191.45   3995661.55   0.02852 (09011717)   314211.45
3995661.55   0.02742 (09011717)
314231.45   3995661.55   0.02647 (09022618)   314251.45
3995661.55   0.02557 (09022618)
314271.45   3995661.55   0.02472 (09022618)   313271.45
3995681.55   0.02542 (06022220)
313291.45   3995681.55   0.02636 (06022220)   313311.45
3995681.55   0.02734 (06022220)
313331.45   3995681.55   0.02836 (06022220)   313351.45
3995681.55   0.02953 (07012802)
313371.45   3995681.55   0.03107 (07012802)   313391.45
3995681.55   0.03278 (08122502)
313411.45   3995681.55   0.03463 (09020219)   313431.45

3995681.55   0.03670 (09012119)
        313451.45   3995681.55   0.03918 (09012119)   313471.45
3995681.55   0.04196 (09012119)
        313491.45   3995681.55   0.04535 (07021120)   313511.45
3995681.55   0.04978 (08022322)
        313531.45   3995681.55   0.05582 (08022322)   313971.45
3995681.55   0.06136 (09120417)
        313991.45   3995681.55   0.05351 (09021918)   314011.45
3995681.55   0.04832 (09020218)
        314031.45   3995681.55   0.04427 (09020218)   314051.45
3995681.55   0.04086 (09012502)
        314071.45   3995681.55   0.03824 (07021518)   314091.45
3995681.55   0.03604 (07021518)
        314111.45   3995681.55   0.03407 (09011917)   314131.45
3995681.55   0.03233 (09011917)
        314151.45   3995681.55   0.03084 (09011717)   314171.45
3995681.55   0.02954 (09011717)
        314191.45   3995681.55   0.02836 (09022618)   314211.45
3995681.55   0.02731 (09022618)
        314231.45   3995681.55   0.02632 (09022618)   314251.45
3995681.55   0.02538 (06010917)
        314271.45   3995681.55   0.02457 (09120317)   313271.45
3995701.55   0.02534 (08120622)
        313291.45   3995701.55   0.02622 (06121403)   313311.45
3995701.55   0.02725 (06022220)
        313331.45   3995701.55   0.02832 (06022220)   313351.45
3995701.55   0.02945 (06022220)
        313371.45   3995701.55   0.03075 (07012802)   313391.45
3995701.55   0.03245 (08122502)
        313411.45   3995701.55   0.03435 (08122502)   313431.45
3995701.55   0.03646 (09020219)
        313451.45   3995701.55   0.03886 (09012119)   313471.45
3995701.55   0.04173 (09012119)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
313491.45	3995701.55	0.04504	(09012119)	313511.45	3995701.55	0.04934	(07021120)
313531.45	3995701.55	0.05530	(08022322)	313971.45	3995701.55	0.06085	(09020520)
313991.45	3995701.55	0.05321	(09020218)	314011.45	3995701.55	0.04807	(09020218)
314031.45	3995701.55	0.04389	(09020218)	314051.45	3995701.55	0.04062	(07021518)
314071.45	3995701.55	0.03805	(07021518)	314091.45	3995701.55	0.03577	(09011917)
314111.45	3995701.55	0.03379	(06010417)	314131.45	3995701.55	0.03212	(09011717)
314151.45	3995701.55	0.03065	(09011717)	314171.45	3995701.55	0.02938	(09022618)
314191.45	3995701.55	0.02820	(09022618)	314211.45	3995701.55	0.02709	(09022618)
314231.45	3995701.55	0.02615	(09120317)	314251.45	3995701.55	0.02528	(09120317)
314271.45	3995701.55	0.02445	(09120317)	313271.45	3995721.55	0.02526	(08120622)
313291.45	3995721.55	0.02616	(08120622)	313311.45	3995721.55	0.02712	(06121403)
313331.45	3995721.55	0.02822	(06022220)	313351.45	3995721.55	0.02941	(06022220)
313371.45	3995721.55	0.03067	(06022220)	313391.45	3995721.55	0.03210	(07012802)
313411.45	3995721.55	0.03401	(08122502)	313431.45	3995721.55	0.03615	(08122502)
313451.45	3995721.55	0.03856	(09020219)	313471.45	3995721.55	0.04140	(09012119)
313491.45	3995721.55	0.04480	(09012119)	313511.45	3995721.55	0.04893	(06010119)
313531.45	3995721.55	0.05458	(08022322)	313971.45	3995721.55	0.06028	(09020520)
313991.45	3995721.55	0.05296	(09020218)	314011.45	3995721.55	0.04770	(09020218)
314031.45	3995721.55	0.04349	(07021518)	314051.45	3995721.55	0.04043	(07021518)
314071.45	3995721.55	0.03774	(09011917)	314091.45	3995721.55	0.03545	(06010417)
314111.45	3995721.55	0.03356	(09011717)	314131.45	3995721.55	0.03191	(09022618)
314151.45	3995721.55	0.03048	(09022618)	314171.45	3995721.55	0.02915	(09022618)
314191.45	3995721.55	0.02799	(09120317)	314211.45			

3995721.55   0.02695 (09120317)
        314231.45   3995721.55   0.02600 (08011220)   314251.45
3995721.55   0.02516 (08011220)
        314271.45   3995721.55   0.02438 (08021818)   313271.45
3995741.55   0.02511 (08120622)
        313291.45   3995741.55   0.02606 (08120622)   313311.45
3995741.55   0.02704 (08120622)
        313331.45   3995741.55   0.02809 (06121403)   313351.45
3995741.55   0.02929 (06022220)
        313371.45   3995741.55   0.03061 (06022220)   313391.45
3995741.55   0.03202 (06022220)
        313411.45   3995741.55   0.03363 (07012802)   313431.45
3995741.55   0.03579 (08122502)
        313451.45   3995741.55   0.03823 (08122502)   313471.45
3995741.55   0.04104 (09020219)
        313491.45   3995741.55   0.04445 (09012119)   313511.45
3995741.55   0.04864 (09012119)
        313531.45   3995741.55   0.05409 (07021120)   313971.45
3995741.55   0.05963 (09021918)
        313991.45   3995741.55   0.05262 (09020218)   314011.45
3995741.55   0.04720 (09012502)
        314031.45   3995741.55   0.04330 (07021518)   314051.45
3995741.55   0.04009 (07021518)
        314071.45   3995741.55   0.03738 (06010417)   314091.45
3995741.55   0.03519 (09011717)
        314111.45   3995741.55   0.03332 (09022618)   314131.45
3995741.55   0.03169 (09022618)
        314151.45   3995741.55   0.03021 (09120317)   314171.45
3995741.55   0.02895 (09120317)
        314191.45   3995741.55   0.02786 (08021818)   314211.45
3995741.55   0.02687 (08021818)
        314231.45   3995741.55   0.02596 (08021818)   314251.45
3995741.55   0.02510 (08021818)
        314271.45   3995741.55   0.02431 (09012306)   313271.45
3995761.55   0.02492 (06120918)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
313291.45	3995761.55	0.02587	(08120622)	313311.45	3995761.55	0.02692	(08120622)
313331.45	3995761.55	0.02800	(08120622)	313351.45	3995761.55	0.02915	(06121403)
313371.45	3995761.55	0.03047	(06022220)	313391.45	3995761.55	0.03194	(06022220)
313411.45	3995761.55	0.03354	(06022220)	313431.45	3995761.55	0.03537	(07012802)
313451.45	3995761.55	0.03784	(08122502)	313471.45	3995761.55	0.04067	(08122502)
313491.45	3995761.55	0.04403	(09020219)	313511.45	3995761.55	0.04826	(09012119)
313531.45	3995761.55	0.05363	(09012119)	313971.45	3995761.55	0.05917	(09020218)
313991.45	3995761.55	0.05214	(09020218)	314011.45	3995761.55	0.04688	(07021518)
314031.45	3995761.55	0.04294	(07021518)	314051.45	3995761.55	0.03965	(06010417)
314071.45	3995761.55	0.03706	(09011717)	314091.45	3995761.55	0.03491	(09022618)
314111.45	3995761.55	0.03301	(09022618)	314131.45	3995761.55	0.03140	(09120317)
314151.45	3995761.55	0.03007	(08021818)	314171.45	3995761.55	0.02887	(08021818)
314191.45	3995761.55	0.02776	(09012306)	314211.45	3995761.55	0.02676	(09012306)
314231.45	3995761.55	0.02584	(09012306)	314251.45	3995761.55	0.02499	(08022918)
314271.45	3995761.55	0.02422	(08022918)	313271.45	3995781.55	0.02491	(06120918)
313291.45	3995781.55	0.02574	(06120918)	313311.45	3995781.55	0.02670	(08120622)
313331.45	3995781.55	0.02785	(08120622)	313351.45	3995781.55	0.02905	(08120622)
313371.45	3995781.55	0.03033	(08120622)	313391.45	3995781.55	0.03177	(06022220)
313411.45	3995781.55	0.03344	(06022220)	313431.45	3995781.55	0.03526	(06022220)
313451.45	3995781.55	0.03737	(07012802)	313471.45	3995781.55	0.04024	(08122502)
313491.45	3995781.55	0.04361	(09020219)	313511.45	3995781.55	0.04774	(09012119)
313531.45	3995781.55	0.05321	(09012119)	313971.45			

3995781.55   0.05873 (09020218)
        313991.45   3995781.55   0.05149 (07021518)   314011.45
3995781.55   0.04650 (07021518)
        314031.45   3995781.55   0.04240 (06010417)   314051.45
3995781.55   0.03925 (09011717)
        314071.45   3995781.55   0.03672 (09022618)   314091.45
3995781.55   0.03453 (08022918)
        314111.45   3995781.55   0.03287 (08022918)   314131.45
3995781.55   0.03140 (08022918)
        314151.45   3995781.55   0.03010 (08022918)   314171.45
3995781.55   0.02892 (08022918)
        314191.45   3995781.55   0.02784 (08022918)   314211.45
3995781.55   0.02686 (08022918)
        314231.45   3995781.55   0.02596 (08022918)   314251.45
3995781.55   0.02512 (08022918)
        314271.45   3995781.55   0.02434 (08022918)   313271.45
3995801.55   0.02482 (06120918)
        313291.45   3995801.55   0.02570 (06120918)   313311.45
3995801.55   0.02662 (06120918)
        313331.45   3995801.55   0.02759 (06120918)   313351.45
3995801.55   0.02886 (08120622)
        313371.45   3995801.55   0.03021 (08120622)   313391.45
3995801.55   0.03164 (08120622)
        313411.45   3995801.55   0.03323 (06121403)   313431.45
3995801.55   0.03513 (06022220)
        313451.45   3995801.55   0.03724 (06022220)   313471.45
3995801.55   0.03972 (07012802)
        313491.45   3995801.55   0.04314 (08122502)   313511.45
3995801.55   0.04727 (09020219)
        313531.45   3995801.55   0.05264 (09012119)   313971.45
3995801.55   0.05802 (09020218)
        313991.45   3995801.55   0.05109 (07021518)   314011.45
3995801.55   0.04581 (06010417)
        314031.45   3995801.55   0.04189 (09022618)   314051.45
3995801.55   0.03880 (09012307)
        314071.45   3995801.55   0.03652 (09012307)   314091.45
3995801.55   0.03457 (09012307)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS

***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
314111.45	3995801.55	0.03290	(08022918)	314131.45	3995801.55	0.03142	(08022918)
314151.45	3995801.55	0.03010	(08022918)	314171.45	3995801.55	0.02890	(08022918)
314191.45	3995801.55	0.02781	(08022918)	314211.45	3995801.55	0.02681	(08022918)
314231.45	3995801.55	0.02589	(08022918)	314251.45	3995801.55	0.02504	(08022918)
314271.45	3995801.55	0.02426	(08022918)	313271.45	3995821.55	0.02464	(06120918)
313291.45	3995821.55	0.02558	(06120918)	313311.45	3995821.55	0.02655	(06120918)
313331.45	3995821.55	0.02757	(06120918)	313351.45	3995821.55	0.02866	(06120918)
313371.45	3995821.55	0.02997	(08120622)	313391.45	3995821.55	0.03148	(08120622)
313411.45	3995821.55	0.03311	(08120622)	313431.45	3995821.55	0.03491	(06121403)
313451.45	3995821.55	0.03707	(06022220)	313471.45	3995821.55	0.03956	(06022220)
313491.45	3995821.55	0.04255	(07012802)	313511.45	3995821.55	0.04672	(08122502)
313531.45	3995821.55	0.05202	(09020219)	313971.45	3995821.55	0.05689	(07021518)
313991.45	3995821.55	0.05017	(06010417)	314011.45	3995821.55	0.04514	(09022618)
314031.45	3995821.55	0.04161	(07120517)	314051.45	3995821.55	0.03890	(07120517)
314071.45	3995821.55	0.03663	(09012307)	314091.45	3995821.55	0.03470	(09012307)
314111.45	3995821.55	0.03301	(09012307)	314131.45	3995821.55	0.03152	(09012307)
314151.45	3995821.55	0.03019	(09012307)	314171.45	3995821.55	0.02899	(09012307)
314191.45	3995821.55	0.02789	(09012307)	314211.45	3995821.55	0.02689	(09012307)
314231.45	3995821.55	0.02597	(09012307)	314251.45	3995821.55	0.02511	(09012307)
314271.45	3995821.55	0.02432	(09012307)	313271.45	3995841.55	0.02455	(06020820)
313291.45	3995841.55	0.02541	(06020820)	313311.45			

3995841.55 0.02638 (06120918)
313331.45 3995841.55 0.02747 (06120918) 313351.45
3995841.55 0.02861 (06120918)
313371.45 3995841.55 0.02983 (06120918) 313391.45
3995841.55 0.03119 (08120622)
313411.45 3995841.55 0.03290 (08120622) 313431.45
3995841.55 0.03476 (08120622)
313451.45 3995841.55 0.03684 (08120622) 313471.45
3995841.55 0.03935 (06022220)
313491.45 3995841.55 0.04233 (06022220) 313511.45
3995841.55 0.04606 (07012802)
313531.45 3995841.55 0.05137 (08122502) 313971.45
3995841.55 0.05568 (07021518)
313991.45 3995841.55 0.04921 (08010217) 314011.45
3995841.55 0.04498 (09011417)
314031.45 3995841.55 0.04164 (09011417) 314051.45
3995841.55 0.03893 (06010518)
314071.45 3995841.55 0.03665 (06010518) 314091.45
3995841.55 0.03470 (06010518)
314111.45 3995841.55 0.03300 (06010518) 314131.45
3995841.55 0.03149 (06010518)
314151.45 3995841.55 0.03015 (06010518) 314171.45
3995841.55 0.02893 (07120517)
314191.45 3995841.55 0.02783 (07120517) 314211.45
3995841.55 0.02683 (09012307)
314231.45 3995841.55 0.02592 (09012307) 314251.45
3995841.55 0.02507 (09012307)
314271.45 3995841.55 0.02429 (09012307) 313271.45
3995861.55 0.02442 (08022118)
313291.45 3995861.55 0.02529 (06020820) 313311.45
3995861.55 0.02624 (06020820)
313331.45 3995861.55 0.02725 (06020820) 313351.45
3995861.55 0.02845 (06120918)
313371.45 3995861.55 0.02973 (06120918) 313391.45
3995861.55 0.03111 (06120918)
313411.45 3995861.55 0.03262 (06120918) 313431.45
3995861.55 0.03449 (08120622)
313451.45 3995861.55 0.03665 (08120622) 313471.45
3995861.55 0.03909 (08120622)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
313491.45	3995861.55	0.04206	(06022220)	313511.45	3995861.55	0.04575	(06022220)
313531.45	3995861.55	0.05061	(08122502)	313991.45	3995861.55	0.04942	(08010217)
314011.45	3995861.55	0.04520	(08010217)	314031.45	3995861.55	0.04178	(08010217)
314051.45	3995861.55	0.03899	(09011417)	314071.45	3995861.55	0.03669	(09011417)
314091.45	3995861.55	0.03472	(09011417)	314111.45	3995861.55	0.03299	(09011417)
314131.45	3995861.55	0.03146	(09011417)	314151.45	3995861.55	0.03009	(09011417)
314171.45	3995861.55	0.02884	(09011417)	314191.45	3995861.55	0.02773	(06010518)
314211.45	3995861.55	0.02674	(06010518)	314231.45	3995861.55	0.02583	(06010518)
314251.45	3995861.55	0.02499	(06010518)	314271.45	3995861.55	0.02420	(06010518)
313271.45	3995881.55	0.02441	(08022118)	313291.45	3995881.55	0.02522	(08022118)
313311.45	3995881.55	0.02609	(08022118)	313331.45	3995881.55	0.02713	(06020820)
313351.45	3995881.55	0.02826	(06020820)	313371.45	3995881.55	0.02951	(06120918)
313391.45	3995881.55	0.03096	(06120918)	313411.45	3995881.55	0.03253	(06120918)
313431.45	3995881.55	0.03427	(06120918)	313451.45	3995881.55	0.03631	(08120622)
313471.45	3995881.55	0.03884	(08120622)	313491.45	3995881.55	0.04177	(08120622)
313511.45	3995881.55	0.04540	(06022220)	313531.45	3995881.55	0.05009	(06022220)
313991.45	3995881.55	0.04957	(08120204)	314011.45	3995881.55	0.04521	(08120204)
314031.45	3995881.55	0.04175	(08010217)	314051.45	3995881.55	0.03898	(08010217)
314071.45	3995881.55	0.03666	(08010217)	314091.45	3995881.55	0.03465	(08010217)
314111.45	3995881.55	0.03289	(08010217)	314131.45			

3995881.55 0.03131 (08010217)
314151.45 3995881.55 0.02997 (09011417) 314171.45
3995881.55 0.02878 (09011417)
314191.45 3995881.55 0.02770 (09011417) 314211.45
3995881.55 0.02670 (09011417)
314231.45 3995881.55 0.02577 (09011417) 314251.45
3995881.55 0.02491 (09011417)
314271.45 3995881.55 0.02410 (09011417) 313291.45
3995901.55 0.02517 (08022118)
313311.45 3995901.55 0.02607 (08022118) 313331.45
3995901.55 0.02704 (08022118)
313351.45 3995901.55 0.02808 (06020820) 313371.45
3995901.55 0.02934 (06020820)
313391.45 3995901.55 0.03071 (06020820) 313411.45
3995901.55 0.03231 (06120918)
313431.45 3995901.55 0.03412 (06120918) 313451.45
3995901.55 0.03614 (06120918)
313471.45 3995901.55 0.03845 (06120918) 313491.45
3995901.55 0.04145 (08120622)
313511.45 3995901.55 0.04506 (08120622) 313531.45
3995901.55 0.04967 (06022220)
313991.45 3995901.55 0.04911 (08012621) 314011.45
3995901.55 0.04470 (06121422)
314031.45 3995901.55 0.04127 (06010820) 314051.45
3995901.55 0.03854 (06010820)
314071.45 3995901.55 0.03626 (08120204) 314091.45
3995901.55 0.03428 (08120204)
314111.45 3995901.55 0.03256 (08010217) 314131.45
3995901.55 0.03113 (08010217)
314151.45 3995901.55 0.02982 (08010217) 314171.45
3995901.55 0.02863 (08010217)
314191.45 3995901.55 0.02752 (08010217) 314211.45
3995901.55 0.02648 (08010217)
314231.45 3995901.55 0.02554 (09011417) 314251.45
3995901.55 0.02475 (09011417)
314271.45 3995901.55 0.02401 (09011417) 313311.45
3995921.55 0.02604 (07120419)
313331.45 3995921.55 0.02703 (07120419) 313351.45
3995921.55 0.02810 (07120419)
313371.45 3995921.55 0.02926 (07120419) 313391.45
3995921.55 0.03058 (06021301)

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION

VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
313411.45	3995921.55	0.03208	(06020820)	313431.45	3995921.55	0.03382	(06120918)
313451.45	3995921.55	0.03591	(06120918)	313471.45	3995921.55	0.03829	(06120918)
313491.45	3995921.55	0.04108	(06120918)	313511.45	3995921.55	0.04465	(08120622)
313531.45	3995921.55	0.04923	(08120622)	313991.45	3995921.55	0.04562	(06010418)
314011.45	3995921.55	0.04274	(06010806)	314031.45	3995921.55	0.04022	(08012621)
314051.45	3995921.55	0.03772	(08120308)	314071.45	3995921.55	0.03557	(06121422)
314091.45	3995921.55	0.03374	(06010820)	314111.45	3995921.55	0.03214	(06010820)
314131.45	3995921.55	0.03072	(08120204)	314151.45	3995921.55	0.02943	(08120204)
314171.45	3995921.55	0.02821	(08120204)	314191.45	3995921.55	0.02722	(08010217)
314211.45	3995921.55	0.02631	(08010217)	314231.45	3995921.55	0.02545	(08010217)
314251.45	3995921.55	0.02463	(08010217)	314271.45	3995921.55	0.02384	(08010217)
313331.45	3995941.55	0.02705	(06021301)	313351.45	3995941.55	0.02812	(06021301)
313371.45	3995941.55	0.02930	(07021520)	313391.45	3995941.55	0.03060	(07021520)
313411.45	3995941.55	0.03207	(07013024)	313431.45	3995941.55	0.03377	(07013024)
313451.45	3995941.55	0.03570	(06010522)	313471.45	3995941.55	0.03798	(06120918)
313491.45	3995941.55	0.04084	(06120918)	313511.45	3995941.55	0.04427	(06120918)
313531.45	3995941.55	0.04871	(08120622)	313991.45	3995941.55	0.04157	(06010418)
314011.45	3995941.55	0.04012	(06010418)	314031.45	3995941.55	0.03802	(06010418)
314051.45	3995941.55	0.03640	(08012621)	314071.45			

3995941.55   0.03474 (08012621)
        314091.45   3995941.55   0.03306 (08120308)   314111.45
3995941.55   0.03154 (06121422)
        314131.45   3995941.55   0.03017 (06010820)   314151.45
3995941.55   0.02902 (06010820)
        314171.45   3995941.55   0.02789 (08120204)   314191.45
3995941.55   0.02692 (08120204)
        314211.45   3995941.55   0.02598 (08120204)   314231.45
3995941.55   0.02506 (08120204)
        314251.45   3995941.55   0.02434 (08010217)   314271.45
3995941.55   0.02365 (08010217)
        313351.45   3995961.55   0.02812 (07021520)   313371.45
3995961.55   0.02932 (07013024)
        313391.45   3995961.55   0.03065 (07013024)   313411.45
3995961.55   0.03213 (06010522)
        313431.45   3995961.55   0.03383 (06010522)   313451.45
3995961.55   0.03578 (06122620)
        313471.45   3995961.55   0.03806 (06022607)   313491.45
3995961.55   0.04080 (09020523)
        313511.45   3995961.55   0.04416 (08122503)   313531.45
3995961.55   0.04846 (08122503)
        313991.45   3995961.55   0.03968 (06010418)   314011.45
3995961.55   0.03789 (06010418)
        314031.45   3995961.55   0.03646 (06010418)   314051.45
3995961.55   0.03485 (06010418)
        314071.45   3995961.55   0.03344 (06010806)   314091.45
3995961.55   0.03221 (08012621)
        314111.45   3995961.55   0.03094 (08012621)   314131.45
3995961.55   0.02968 (08120308)
        314151.45   3995961.55   0.02853 (06121422)   314171.45
3995961.55   0.02744 (06010820)
        314191.45   3995961.55   0.02655 (06010820)   314211.45
3995961.55   0.02567 (06010820)
        314231.45   3995961.55   0.02486 (08120204)   314251.45
3995961.55   0.02411 (08120204)
        314271.45   3995961.55   0.02337 (08120204)   313371.45
3995981.55   0.02937 (06010522)
        313391.45   3995981.55   0.03071 (06010522)   313411.45
3995981.55   0.03220 (06122620)
        313431.45   3995981.55   0.03390 (06122620)   313451.45
3995981.55   0.03585 (09020523)
        313471.45   3995981.55   0.03813 (09020523)   313491.45
3995981.55   0.04090 (08122503)

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
313511.45	3995981.55	0.04427	(08122503)	313531.45	3995981.55	0.04868	(09020418)
313991.45	3995981.55	0.03940	(06010418)	314011.45	3995981.55	0.03697	(06010418)
314031.45	3995981.55	0.03521	(06010418)	314051.45	3995981.55	0.03381	(06010418)
314071.45	3995981.55	0.03242	(06010418)	314091.45	3995981.55	0.03115	(06010806)
314111.45	3995981.55	0.03013	(08012621)	314131.45	3995981.55	0.02913	(08012621)
314151.45	3995981.55	0.02808	(08012621)	314171.45	3995981.55	0.02708	(08120308)
314191.45	3995981.55	0.02617	(06121422)	314211.45	3995981.55	0.02527	(06010820)
314231.45	3995981.55	0.02456	(06010820)	314251.45	3995981.55	0.02384	(06010820)
314271.45	3995981.55	0.02315	(08120204)	313391.45	3996001.55	0.03077	(06122620)
313411.45	3996001.55	0.03226	(06022607)	313431.45	3996001.55	0.03396	(09020523)
313451.45	3996001.55	0.03590	(08122503)	313471.45	3996001.55	0.03824	(08122503)
313491.45	3996001.55	0.04095	(08122503)	313511.45	3996001.55	0.04445	(09020418)
313531.45	3996001.55	0.04889	(09020418)	313991.45	3996001.55	0.03998	(06010417)
314011.45	3996001.55	0.03842	(09011717)	314031.45	3996001.55	0.03657	(09022618)
314051.45	3996001.55	0.03463	(09022618)	314071.45	3996001.55	0.03294	(09120317)
314091.45	3996001.55	0.03140	(09120317)	314111.45	3996001.55	0.02996	(08120323)
314131.45	3996001.55	0.02873	(08011220)	314151.45	3996001.55	0.02760	(08011220)
314171.45	3996001.55	0.02672	(08012621)	314191.45			

3996001.55   0.02585 (08120308)
        314211.45   3996001.55   0.02501 (06121422)   314231.45
3996001.55   0.02426 (06121422)
        314251.45   3996001.55   0.02352 (06010820)   314271.45
3996001.55   0.02292 (06010820)
        313411.45   3996021.55   0.03230 (09020523)   313431.45
3996021.55   0.03403 (08122503)
        313451.45   3996021.55   0.03601 (08122503)   313471.45
3996021.55   0.03825 (08122503)
        313491.45   3996021.55   0.04115 (09020418)   313511.45
3996021.55   0.04463 (09020418)
        313531.45   3996021.55   0.04892 (09020418)   313991.45
3996021.55   0.04441 (09022618)
        314011.45   3996021.55   0.04123 (09022618)   314031.45
3996021.55   0.03847 (09120317)
        314051.45   3996021.55   0.03602 (09120317)   314071.45
3996021.55   0.03400 (08011220)
        314091.45   3996021.55   0.03224 (08011220)   314111.45
3996021.55   0.03072 (08021818)
        314131.45   3996021.55   0.02934 (08021818)   314151.45
3996021.55   0.02813 (09012306)
        314171.45   3996021.55   0.02703 (09012306)   314191.45
3996021.55   0.02601 (09012306)
        314211.45   3996021.55   0.02505 (09012306)   314231.45
3996021.55   0.02424 (08022918)
        314251.45   3996021.55   0.02352 (08022918)   314271.45
3996021.55   0.02286 (08022918)
        313431.45   3996041.55   0.03409 (08122503)   313451.45
3996041.55   0.03602 (09020418)
        313471.45   3996041.55   0.03848 (09020418)   313491.45
3996041.55   0.04129 (09020418)
        313511.45   3996041.55   0.04465 (09020418)   313531.45
3996041.55   0.04901 (07020819)
        313991.45   3996041.55   0.04743 (08011220)   314011.45
3996041.55   0.04320 (08021818)
        314031.45   3996041.55   0.03985 (08021818)   314051.45
3996041.55   0.03713 (09012306)
        314071.45   3996041.55   0.03488 (09012306)   314091.45
3996041.55   0.03295 (09012306)
        314111.45   3996041.55   0.03126 (09012306)   314131.45
3996041.55   0.02986 (08022918)
        314151.45   3996041.55   0.02863 (08022918)   314171.45
3996041.55   0.02752 (08022918)
        314191.45   3996041.55   0.02651 (08022918)   314211.45
3996041.55   0.02558 (08022918)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
314231.45	3996041.55	0.02473	(08022918)	314251.45	3996041.55	0.02395	(08022918)
314271.45	3996041.55	0.02321	(08022918)	313991.45	3996061.55	0.04868	(09012307)
314011.45	3996061.55	0.04430	(08022918)	314031.45	3996061.55	0.04086	(08022918)
314051.45	3996061.55	0.03804	(08022918)	314071.45	3996061.55	0.03570	(08022918)
314091.45	3996061.55	0.03372	(08022918)	314111.45	3996061.55	0.03200	(08022918)
314131.45	3996061.55	0.03050	(08022918)	314151.45	3996061.55	0.02916	(08022918)
314171.45	3996061.55	0.02796	(08022918)	314191.45	3996061.55	0.02687	(08022918)
314211.45	3996061.55	0.02588	(08022918)	314231.45	3996061.55	0.02497	(08022918)
314251.45	3996061.55	0.02413	(08022918)	314271.45	3996061.55	0.02334	(08022918)
313991.45	3996081.55	0.04963	(08012621)	314011.45	3996081.55	0.04496	(08010217)
314031.45	3996081.55	0.04148	(07120517)	314051.45	3996081.55	0.03865	(09012307)
314071.45	3996081.55	0.03628	(09012307)	314091.45	3996081.55	0.03425	(09012307)
314111.45	3996081.55	0.03250	(09012307)	314131.45	3996081.55	0.03095	(09012307)
314151.45	3996081.55	0.02959	(09012307)	314171.45	3996081.55	0.02837	(09012307)
314191.45	3996081.55	0.02726	(09012307)	314211.45	3996081.55	0.02627	(09012307)
314231.45	3996081.55	0.02536	(09012307)	314251.45	3996081.55	0.02452	(09012307)
314271.45	3996081.55	0.02375	(09012307)	313991.45			

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3996101.55         0.05180  (08022018)
        314011.45   3996101.55        0.04594  (08012621)                314031.45
3996101.55         0.04196  (08010217)
        314051.45   3996101.55        0.03902  (08010217)                314071.45
3996101.55         0.03660  (09011417)
        314091.45   3996101.55        0.03455  (06010518)                314111.45
3996101.55         0.03280  (06010518)
        314131.45   3996101.55        0.03125  (06010518)                314151.45
3996101.55         0.02987  (07120517)
        314171.45   3996101.55        0.02864  (09012307)                314191.45
3996101.55         0.02754  (09012307)
        314211.45   3996101.55        0.02653  (09012307)                314231.45
3996101.55         0.02560  (09012307)
        314251.45   3996101.55        0.02475  (09012307)                314271.45
3996101.55         0.02397  (09012307)
        313991.45   3996121.55        0.05340  (07121617)                314011.45
3996121.55         0.04744  (08022018)
        314031.45   3996121.55        0.04290  (06010418)                314051.45
3996121.55         0.03947  (08012621)
        314071.45   3996121.55        0.03696  (08010217)                314091.45
3996121.55         0.03489  (08010217)
        314111.45   3996121.55        0.03307  (09011417)                314131.45
3996121.55         0.03152  (09011417)
        314151.45   3996121.55        0.03013  (09011417)                314171.45
3996121.55         0.02887  (09011417)
        314191.45   3996121.55        0.02772  (06010518)                314211.45
3996121.55         0.02671  (06010518)
        314231.45   3996121.55        0.02579  (06010518)                314251.45
3996121.55         0.02493  (06010518)
        314271.45   3996121.55        0.02414  (06010518)                313991.45
3996141.55         0.05463  (09012404)
        314011.45   3996141.55        0.04858  (07121617)                314031.45
3996141.55         0.04398  (08022018)
        314051.45   3996141.55        0.04038  (06010418)                314071.45
3996141.55         0.03747  (08012621)
        314091.45   3996141.55        0.03514  (07022619)                314111.45
3996141.55         0.03334  (08010217)
        314131.45   3996141.55        0.03177  (08010217)                314151.45
3996141.55         0.03036  (08010217)
        314171.45   3996141.55        0.02908  (09011417)                314191.45
3996141.55         0.02797  (09011417)
        314211.45   3996141.55        0.02695  (09011417)                314231.45
3996141.55         0.02601  (09011417)
        314251.45   3996141.55        0.02514  (09011417)                314271.45
3996141.55         0.02433  (09011417)
        313991.45   3996161.55        0.05528  (09012404)                314011.45
3996161.55         0.04949  (09012404)
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
314031.45	3996161.55	0.04485	(07121617)	314051.45	3996161.55	0.04118	(08022018)
314071.45	3996161.55	0.03823	(06010418)	314091.45	3996161.55	0.03568	(08012621)
314111.45	3996161.55	0.03367	(08012621)	314131.45	3996161.55	0.03195	(07022619)
314151.45	3996161.55	0.03054	(08010217)	314171.45	3996161.55	0.02930	(08010217)
314191.45	3996161.55	0.02817	(08010217)	314211.45	3996161.55	0.02713	(08010217)
314231.45	3996161.55	0.02617	(08010217)	314251.45	3996161.55	0.02527	(08010217)
314271.45	3996161.55	0.02446	(09011417)	313991.45	3996181.55	0.05593	(08120520)
314011.45	3996181.55	0.05014	(09012404)	314031.45	3996181.55	0.04553	(09012404)
314051.45	3996181.55	0.04186	(07121617)	314071.45	3996181.55	0.03884	(08022018)
314091.45	3996181.55	0.03636	(06010418)	314111.45	3996181.55	0.03414	(06010418)
314131.45	3996181.55	0.03236	(08012621)	314151.45	3996181.55	0.03078	(08012621)
314171.45	3996181.55	0.02945	(07022619)	314191.45	3996181.55	0.02829	(08120204)
314211.45	3996181.55	0.02725	(08010217)	314231.45	3996181.55	0.02632	(08010217)
314251.45	3996181.55	0.02545	(08010217)	314271.45	3996181.55	0.02464	(08010217)
313991.45	3996201.55	0.05642	(08120520)	314011.45	3996201.55	0.05052	(09012404)
314031.45	3996201.55	0.04617	(09012404)	314051.45			

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3996201.55        0.04238  (07121617)
        314071.45   3996201.55        0.03940  (07121617)                314091.45
3996201.55        0.03685  (08022018)
        314111.45   3996201.55        0.03472  (06010418)                314131.45
3996201.55        0.03281  (06010418)
        314151.45   3996201.55        0.03115  (08012621)                314171.45
3996201.55        0.02977  (08012621)
        314191.45   3996201.55        0.02848  (06121422)                314211.45
3996201.55        0.02740  (06010820)
        314231.45   3996201.55        0.02643  (08120204)                314251.45
3996201.55        0.02554  (08120204)
        314271.45   3996201.55        0.02471  (08120204)                313991.45
3996221.55        0.05711  (09121905)
        314011.45   3996221.55        0.05103  (08120520)                314031.45
3996221.55        0.04655  (09012404)
        314051.45   3996221.55        0.04299  (09012404)                314071.45
3996221.55        0.03987  (07121617)
        314091.45   3996221.55        0.03731  (07121617)                314111.45
3996221.55        0.03513  (08022018)
        314131.45   3996221.55        0.03326  (06010418)                314151.45
3996221.55        0.03159  (06010418)
        314171.45   3996221.55        0.03004  (06010617)                314191.45
3996221.55        0.02881  (08012621)
        314211.45   3996221.55        0.02766  (08012621)                314231.45
3996221.55        0.02660  (06121422)
        314251.45   3996221.55        0.02568  (06010820)                314271.45
3996221.55        0.02485  (06010820)
        313991.45   3996241.55        0.05769  (06010817)                314011.45
3996241.55        0.05141  (08120520)
        314031.45   3996241.55        0.04688  (08120520)                314051.45
3996241.55        0.04337  (09012404)
        314071.45   3996241.55        0.04036  (09012404)                314091.45
3996241.55        0.03774  (07121617)
        314111.45   3996241.55        0.03552  (07121617)                314131.45
3996241.55        0.03361  (08022018)
        314151.45   3996241.55        0.03196  (08022018)                314171.45
3996241.55        0.03048  (06010418)
        314191.45   3996241.55        0.02908  (06010418)                314211.45
3996241.55        0.02791  (08012621)
        314231.45   3996241.55        0.02688  (08012621)                314251.45
3996241.55        0.02591  (08012621)
        314271.45   3996241.55        0.02501  (06121422)                313991.45
3996261.55        0.05836  (09012308)
        314011.45   3996261.55        0.05197  (09121905)                314031.45
3996261.55        0.04727  (08120520)
        314051.45   3996261.55        0.04362  (09012404)                314071.45
3996261.55        0.04075  (09012404)
        314091.45   3996261.55        0.03814  (09012404)                314111.45
3996261.55        0.03591  (07121617)
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
314131.45	3996261.55	0.03395	(07121617)	314151.45	3996261.55	0.03226	(08022018)
314171.45	3996261.55	0.03079	(08022018)	314191.45	3996261.55	0.02946	(06010418)
314211.45	3996261.55	0.02821	(06010418)	314231.45	3996261.55	0.02706	(06010617)
314251.45	3996261.55	0.02612	(08012621)	314271.45	3996261.55	0.02525	(08012621)
313991.45	3996281.55	0.05858	(09012308)	314011.45	3996281.55	0.05238	(06010817)
314031.45	3996281.55	0.04757	(09121905)	314051.45	3996281.55	0.04397	(09121717)
314071.45	3996281.55	0.04099	(09012404)	314091.45	3996281.55	0.03852	(09012404)
314111.45	3996281.55	0.03622	(09012404)	314131.45	3996281.55	0.03430	(07121617)
314151.45	3996281.55	0.03255	(07121617)	314171.45	3996281.55	0.03105	(08022018)
314191.45	3996281.55	0.02973	(08022018)	314211.45	3996281.55	0.02852	(06010418)
314231.45	3996281.55	0.02739	(06010418)	314251.45	3996281.55	0.02631	(06010418)
314271.45	3996281.55	0.02538	(08012621)	313811.45	3996301.55	0.05826	(09012406)
313831.45	3996301.55	0.05851	(09020419)	313851.45	3996301.55	0.05868	(09020419)
313871.45	3996301.55	0.05875	(07121918)	313891.45	3996301.55	0.05898	(08120121)
313911.45	3996301.55	0.05917	(08022420)	313931.45			

3996301.55 0.05949 (08022420)
313951.45 3996301.55 0.05962 (07122007) 313971.45
3996301.55 0.05961 (08010504)
313991.45 3996301.55 0.05687 (07022620) 314011.45
3996301.55 0.05238 (09012308)
314031.45 3996301.55 0.04788 (09121905) 314051.45
3996301.55 0.04416 (09121717)
314071.45 3996301.55 0.04120 (09121717) 314091.45
3996301.55 0.03874 (09012404)
314111.45 3996301.55 0.03659 (09012404) 314131.45
3996301.55 0.03454 (09012404)
314151.45 3996301.55 0.03287 (07121617) 314171.45
3996301.55 0.03131 (07121617)
314191.45 3996301.55 0.02993 (08022018) 314211.45
3996301.55 0.02875 (08022018)
314231.45 3996301.55 0.02764 (06010418) 314251.45
3996301.55 0.02662 (06010418)
314271.45 3996301.55 0.02564 (06010418) 313811.45
3996321.55 0.05434 (09022305)
313831.45 3996321.55 0.05447 (09020419) 313851.45
3996321.55 0.05471 (09020419)
313871.45 3996321.55 0.05479 (09020419) 313891.45
3996321.55 0.05488 (07121918)
313911.45 3996321.55 0.05503 (08120121) 313931.45
3996321.55 0.05524 (08022420)
313951.45 3996321.55 0.05535 (08022420) 313971.45
3996321.55 0.05530 (08010504)
313991.45 3996321.55 0.05380 (08010504) 314011.45
3996321.55 0.05113 (07022620)
314031.45 3996321.55 0.04772 (09012308) 314051.45
3996321.55 0.04427 (09121905)
314071.45 3996321.55 0.04132 (09121717) 314091.45
3996321.55 0.03883 (09121717)
314111.45 3996321.55 0.03677 (09012404) 314131.45
3996321.55 0.03488 (09012404)
314151.45 3996321.55 0.03305 (09012404) 314171.45
3996321.55 0.03158 (07121617)
314191.45 3996321.55 0.03017 (07121617) 314211.45
3996321.55 0.02889 (08022018)
314231.45 3996321.55 0.02783 (08022018) 314251.45
3996321.55 0.02680 (08022018)
314271.45 3996321.55 0.02588 (06010418) 313811.45
3996341.55 0.05109 (09022305)
313831.45 3996341.55 0.05122 (09012406) 313851.45
3996341.55 0.05140 (09020419)
313871.45 3996341.55 0.05153 (09020419) 313891.45
3996341.55 0.05152 (09020419)
313911.45 3996341.55 0.05166 (08120121) 313931.45
3996341.55 0.05169 (08022420)
313951.45 3996341.55 0.05192 (08022420) 313971.45

3996341.55 0.05163 (07122007)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
313991.45	3996341.55	0.05120	(08010504)	314011.45	3996341.55	0.04941	(07022620)
314031.45	3996341.55	0.04686	(09012308)	314051.45	3996341.55	0.04404	(06010817)
314071.45	3996341.55	0.04128	(09121905)	314091.45	3996341.55	0.03889	(09121717)
314111.45	3996341.55	0.03676	(09121717)	314131.45	3996341.55	0.03500	(09012404)
314151.45	3996341.55	0.03335	(09012404)	314171.45	3996341.55	0.03171	(09012404)
314191.45	3996341.55	0.03040	(07121617)	314211.45	3996341.55	0.02913	(07121617)
314231.45	3996341.55	0.02791	(08022018)	314251.45	3996341.55	0.02696	(08022018)
314271.45	3996341.55	0.02604	(08022018)	313811.45	3996361.55	0.04834	(09022305)
313831.45	3996361.55	0.04849	(09022305)	313851.45	3996361.55	0.04860	(09020419)
313871.45	3996361.55	0.04877	(09020419)	313891.45	3996361.55	0.04880	(09020419)
313911.45	3996361.55	0.04884	(07121918)	313931.45	3996361.55	0.04891	(08120121)
313951.45	3996361.55	0.04899	(08022420)	313971.45	3996361.55	0.04881	(07122007)
313991.45	3996361.55	0.04850	(08010504)	314011.45	3996361.55	0.04724	(08010504)
314031.45	3996361.55	0.04565	(07022620)	314051.45			

3996361.55 0.04348 (09012308)
314071.45 3996361.55 0.04102 (06010817) 314091.45
3996361.55 0.03874 (09121905)
314111.45 3996361.55 0.03677 (09121717) 314131.45
3996361.55 0.03492 (09121717)
314151.45 3996361.55 0.03341 (09012404) 314171.45
3996361.55 0.03196 (09012404)
314191.45 3996361.55 0.03048 (09012404) 314211.45
3996361.55 0.02929 (07121617)
314231.45 3996361.55 0.02816 (07121617) 314251.45
3996361.55 0.02702 (07121617)
314271.45 3996361.55 0.02613 (08022018) 313731.45
3996381.55 0.04603 (09121317)
313751.45 3996381.55 0.04600 (09021718) 313771.45
3996381.55 0.04598 (09021718)
313791.45 3996381.55 0.04587 (09021718) 313811.45
3996381.55 0.04597 (09022305)
313831.45 3996381.55 0.04616 (09022305) 313851.45
3996381.55 0.04625 (09012406)
313871.45 3996381.55 0.04639 (09020419) 313891.45
3996381.55 0.04646 (09020419)
313911.45 3996381.55 0.04642 (07121918) 313931.45
3996381.55 0.04650 (08120121)
313951.45 3996381.55 0.04644 (08022420) 313971.45
3996381.55 0.04641 (08022420)
313991.45 3996381.55 0.04590 (08010504) 314011.45
3996381.55 0.04547 (08010504)
314031.45 3996381.55 0.04408 (07022620) 314051.45
3996381.55 0.04242 (07022620)
314071.45 3996381.55 0.04062 (09012308) 314091.45
3996381.55 0.03849 (09121905)
314111.45 3996381.55 0.03653 (09121905) 314131.45
3996381.55 0.03490 (09121717)
314151.45 3996381.55 0.03328 (09121717) 314171.45
3996381.55 0.03196 (09012404)
314191.45 3996381.55 0.03069 (09012404) 314211.45
3996381.55 0.02936 (09012404)
314231.45 3996381.55 0.02826 (07121617) 314251.45
3996381.55 0.02725 (07121617)
314271.45 3996381.55 0.02622 (07121617) 313731.45
3996401.55 0.04398 (09021718)
313751.45 3996401.55 0.04402 (09021718) 313771.45
3996401.55 0.04398 (09021718)
313791.45 3996401.55 0.04384 (09021718) 313811.45
3996401.55 0.04391 (07121804)
313831.45 3996401.55 0.04410 (09022305) 313851.45
3996401.55 0.04420 (09012406)
313871.45 3996401.55 0.04429 (09020419) 313891.45
3996401.55 0.04440 (09020419)
313911.45 3996401.55 0.04434 (09020419) 313931.45

3996401.55 0.04439 (07121918)
313951.45 3996401.55 0.04430 (08120121) 313971.45
3996401.55 0.04430 (08022420)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
313991.45	3996401.55	0.04389	(07122007)	314011.45	3996401.55	0.04354	(08010504)
314031.45	3996401.55	0.04252	(08010504)	314051.45	3996401.55	0.04138	(07022620)
314071.45	3996401.55	0.03975	(09012308)	314091.45	3996401.55	0.03814	(09012308)
314111.45	3996401.55	0.03635	(09121905)	314131.45	3996401.55	0.03458	(09121905)
314151.45	3996401.55	0.03323	(09121717)	314171.45	3996401.55	0.03180	(09121717)
314191.45	3996401.55	0.03063	(09012404)	314211.45	3996401.55	0.02951	(09012404)
314231.45	3996401.55	0.02832	(09012404)	314251.45	3996401.55	0.02729	(07121617)
314271.45	3996401.55	0.02639	(07121617)	313731.45	3996421.55	0.04222	(09021718)
313751.45	3996421.55	0.04226	(09021718)	313771.45	3996421.55	0.04221	(09021718)
313791.45	3996421.55	0.04206	(08010603)	313811.45	3996421.55	0.04214	(07121804)
313831.45	3996421.55	0.04227	(09022305)	313851.45	3996421.55	0.04239	(09022305)
313871.45	3996421.55	0.04244	(09012406)	313891.45	3996421.55	0.04257	(09020419)
313911.45	3996421.55	0.04255	(09020419)	313931.45			

3996421.55 0.04252 (07121918)
313951.45 3996421.55 0.04248 (08120121) 313971.45
3996421.55 0.04236 (08022420)
313991.45 3996421.55 0.04205 (07122007) 314011.45
3996421.55 0.04157 (08010504)
314031.45 3996421.55 0.04118 (08010504) 314051.45
3996421.55 0.03997 (07022620)
314071.45 3996421.55 0.03894 (07022620) 314091.45
3996421.55 0.03754 (09012308)
314111.45 3996421.55 0.03600 (06010817) 314131.45
3996421.55 0.03447 (09121905)
314151.45 3996421.55 0.03284 (09121905) 314171.45
3996421.55 0.03174 (09121717)
314191.45 3996421.55 0.03045 (09121717) 314211.45
3996421.55 0.02941 (09012404)
314231.45 3996421.55 0.02842 (09012404) 314251.45
3996421.55 0.02735 (09012404)
314271.45 3996421.55 0.02636 (07121617) 313751.45
3996441.55 0.04068 (09021718)
313771.45 3996441.55 0.04062 (09021718) 313791.45
3996441.55 0.04047 (08011305)
313811.45 3996441.55 0.04055 (07121804) 313831.45
3996441.55 0.04062 (09022305)
313851.45 3996441.55 0.04078 (09022305) 313871.45
3996441.55 0.04083 (09012406)
313891.45 3996441.55 0.04092 (09020419) 313911.45
3996441.55 0.04093 (09020419)
313931.45 3996441.55 0.04082 (07121918) 313951.45
3996441.55 0.04082 (08120121)
313971.45 3996441.55 0.04057 (07122018) 313991.45
3996441.55 0.04049 (08022420)
314011.45 3996441.55 0.03999 (07122007) 314031.45
3996441.55 0.03968 (08010504)
314051.45 3996441.55 0.03886 (08010504) 314071.45
3996441.55 0.03792 (07022620)
314091.45 3996441.55 0.03671 (07022620) 314111.45
3996441.55 0.03556 (09012308)
314131.45 3996441.55 0.03413 (06010817) 314151.45
3996441.55 0.03279 (09121905)
314171.45 3996441.55 0.03134 (09121717) 314191.45
3996441.55 0.03039 (09121717)
314211.45 3996441.55 0.02922 (09121717) 314231.45
3996441.55 0.02828 (09012404)
314251.45 3996441.55 0.02741 (09012404) 314271.45
3996441.55 0.02645 (09012404)
313751.45 3996461.55 0.03925 (09021718) 313771.45
3996461.55 0.03918 (09021718)
313791.45 3996461.55 0.03905 (08011305) 313811.45
3996461.55 0.03910 (07121804)
313831.45 3996461.55 0.03913 (07121804) 313851.45

3996461.55   0.03930 (09022305)
        313871.45   3996461.55   0.03937 (09012406)   313891.45
3996461.55   0.03941 (09020419)
        313911.45   3996461.55   0.03947 (09020419)   313931.45
3996461.55   0.03928 (09020419)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
313951.45	3996461.55	0.03931	(07121918)	313971.45	3996461.55	0.03909	(08120121)
313991.45	3996461.55	0.03899	(08022420)	314011.45	3996461.55	0.03859	(07122007)
314031.45	3996461.55	0.03810	(08010504)	314051.45	3996461.55	0.03777	(08010504)
314071.45	3996461.55	0.03663	(07022620)	314091.45	3996461.55	0.03600	(07022620)
314111.45	3996461.55	0.03478	(09012308)	314131.45	3996461.55	0.03377	(09012308)
314151.45	3996461.55	0.03245	(06010817)	314171.45	3996461.55	0.03128	(09121905)
314191.45	3996461.55	0.03001	(09121717)	314211.45	3996461.55	0.02915	(09121717)
314231.45	3996461.55	0.02809	(09121717)	314251.45	3996461.55	0.02723	(09012404)
314271.45	3996461.55	0.02647	(09012404)	313751.45	3996481.55	0.03795	(09021718)
313771.45	3996481.55	0.03787	(09021718)	313791.45	3996481.55	0.03775	(08011305)
313811.45	3996481.55	0.03778	(07121804)	313831.45	3996481.55	0.03783	(07121804)
313851.45	3996481.55	0.03795	(09022305)	313871.45			

3996481.55 0.03802 (09022305)
313891.45 3996481.55 0.03801 (09012406) 313911.45
3996481.55 0.03812 (09020419)
313931.45 3996481.55 0.03799 (09020419) 313951.45
3996481.55 0.03794 (07121918)
313971.45 3996481.55 0.03779 (08120121) 313991.45
3996481.55 0.03756 (08022420)
314011.45 3996481.55 0.03729 (08022420) 314031.45
3996481.55 0.03679 (07122007)
314051.45 3996481.55 0.03655 (08010504) 314071.45
3996481.55 0.03588 (08010504)
314091.45 3996481.55 0.03502 (07022620) 314111.45
3996481.55 0.03421 (07022620)
314131.45 3996481.55 0.03319 (09012308) 314151.45
3996481.55 0.03215 (09012308)
314171.45 3996481.55 0.03096 (09121905) 314191.45
3996481.55 0.02991 (09121905)
314211.45 3996481.55 0.02880 (09121717) 314231.45
3996481.55 0.02802 (09121717)
314251.45 3996481.55 0.02706 (09121717) 314271.45
3996481.55 0.02625 (09012404)
313771.45 3996501.55 0.03666 (09021718) 313791.45
3996501.55 0.03655 (08011305)
313811.45 3996501.55 0.03657 (07121804) 313831.45
3996501.55 0.03663 (07121804)
313851.45 3996501.55 0.03670 (09022305) 313871.45
3996501.55 0.03681 (09022305)
313891.45 3996501.55 0.03681 (09012406) 313911.45
3996501.55 0.03687 (09020419)
313931.45 3996501.55 0.03679 (09020419) 313951.45
3996501.55 0.03666 (07121918)
313971.45 3996501.55 0.03656 (08120121) 313991.45
3996501.55 0.03626 (07122018)
314011.45 3996501.55 0.03613 (08022420) 314031.45
3996501.55 0.03570 (07122007)
314051.45 3996501.55 0.03523 (08010504) 314071.45
3996501.55 0.03497 (08010504)
314091.45 3996501.55 0.03402 (08010504) 314111.45
3996501.55 0.03348 (07022620)
314131.45 3996501.55 0.03254 (07022620) 314151.45
3996501.55 0.03172 (09012308)
314171.45 3996501.55 0.03070 (06010817) 314191.45
3996501.55 0.02966 (09121905)
314211.45 3996501.55 0.02865 (09121905) 314231.45
3996501.55 0.02769 (09121717)
314251.45 3996501.55 0.02698 (09121717) 314271.45
3996501.55 0.02609 (09121717)
313771.45 3996521.55 0.03554 (09021718) 313791.45
3996521.55 0.03545 (08011305)
313811.45 3996521.55 0.03544 (08010603) 313831.45

```
3996521.55        0.03552  (07121804)
        313851.45   3996521.55        0.03553  (09022305)                313871.45
3996521.55        0.03567  (09022305)
        313891.45   3996521.55        0.03568  (09012406)                313911.45
3996521.55        0.03570  (09020419)
        313931.45   3996521.55        0.03567  (09020419)                313951.45
3996521.55        0.03544  (07121918)
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\LombardiPortervilleMitigated\LombardiPortervill ***        07/23/21
 *** AERMET - VERSION  18081 ***   ***
                       ***        10:19:35

                                  PAGE  77
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA1      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        313971.45   3996521.55        0.03541  (07121918)                313991.45
3996521.55        0.03511  (08120121)
        314011.45   3996521.55        0.03498  (08022420)                314031.45
3996521.55        0.03458  (07122007)
        314051.45   3996521.55        0.03410  (07122007)                314071.45
3996521.55        0.03393  (08010504)
        314091.45   3996521.55        0.03339  (08010504)                314111.45
3996521.55        0.03253  (07022620)
        314131.45   3996521.55        0.03201  (07022620)                314151.45
3996521.55        0.03102  (09012308)
        314171.45   3996521.55        0.03036  (09012308)                314191.45
3996521.55        0.02939  (06010817)
        314211.45   3996521.55        0.02847  (09121905)                314231.45
3996521.55        0.02750  (09121905)
        314251.45   3996521.55        0.02667  (09121717)                314271.45
3996521.55        0.02603  (09121717)
        313791.45   3996541.55        0.03442  (08011305)                313811.45
3996541.55        0.03442  (08011305)
        313831.45   3996541.55        0.03449  (07121804)                313851.45
3996541.55        0.03445  (08120305)
        313871.45   3996541.55        0.03461  (09022305)                313891.45
```

3996541.55 0.03463 (09012406)
313911.45 3996541.55 0.03460 (09020419) 313931.45
3996541.55 0.03463 (09020419)
313951.45 3996541.55 0.03434 (09020419) 313971.45
3996541.55 0.03435 (07121918)
313991.45 3996541.55 0.03413 (08120121) 314011.45
3996541.55 0.03384 (08022420)
314031.45 3996541.55 0.03365 (08022420) 314051.45
3996541.55 0.03324 (07122007)
314071.45 3996541.55 0.03279 (08010504) 314091.45
3996541.55 0.03260 (08010504)
314111.45 3996541.55 0.03182 (08010504) 314131.45
3996541.55 0.03127 (07022620)
314151.45 3996541.55 0.03062 (07022620) 314171.45
3996541.55 0.02981 (09012308)
314191.45 3996541.55 0.02910 (09012308) 314211.45
3996541.55 0.02818 (06010817)
314231.45 3996541.55 0.02737 (09121905) 314251.45
3996541.55 0.02644 (09121905)
314271.45 3996541.55 0.02572 (09121717) 313791.45
3996561.55 0.03345 (08011305)
313811.45 3996561.55 0.03347 (08011305) 313831.45
3996561.55 0.03352 (07121804)
313851.45 3996561.55 0.03349 (07121804) 313871.45
3996561.55 0.03362 (09022305)
313891.45 3996561.55 0.03365 (09012406) 313911.45
3996561.55 0.03356 (09012406)
313931.45 3996561.55 0.03364 (09020419) 313951.45
3996561.55 0.03343 (09020419)
313971.45 3996561.55 0.03334 (07121918) 313991.45
3996561.55 0.03318 (08120121)
314011.45 3996561.55 0.03286 (07122018) 314031.45
3996561.55 0.03272 (08022420)
314051.45 3996561.55 0.03232 (07122007) 314071.45
3996561.55 0.03181 (07122007)
314091.45 3996561.55 0.03169 (08010504) 314111.45
3996561.55 0.03125 (08010504)
314131.45 3996561.55 0.03041 (09121007) 314151.45
3996561.55 0.03006 (07022620)
314171.45 3996561.55 0.02929 (07022620) 314191.45
3996561.55 0.02866 (09012308)
314211.45 3996561.55 0.02792 (09012308) 314231.45
3996561.55 0.02706 (06010817)
314251.45 3996561.55 0.02635 (09121905) 314271.45
3996561.55 0.02545 (09121905)
313791.45 3996581.55 0.03254 (08011305) 313811.45
3996581.55 0.03257 (08011305)
313831.45 3996581.55 0.03261 (07121804) 313851.45
3996581.55 0.03260 (07121804)
313871.45 3996581.55 0.03268 (09022305) 313891.45

```
3996581.55        0.03273  (09022305)
        313911.45   3996581.55        0.03267  (09012406)                313931.45
3996581.55        0.03271  (09020419)
        313951.45   3996581.55        0.03256  (09020419)                313971.45
3996581.55        0.03236  (07121918)
        313991.45   3996581.55        0.03226  (07121918)                314011.45
3996581.55        0.03194  (08120121)
        314031.45   3996581.55        0.03177  (08022420)                314051.45
3996581.55        0.03148  (08022420)
```



```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA1      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        314071.45   3996581.55        0.03110  (07122007)                314091.45
3996581.55        0.03069  (08010504)
        314111.45   3996581.55        0.03055  (08010504)                314131.45
3996581.55        0.02991  (08010504)
        314151.45   3996581.55        0.02932  (07022620)                314171.45
3996581.55        0.02889  (07022620)
        314191.45   3996581.55        0.02807  (08010919)                314211.45
3996581.55        0.02759  (09012308)
        314231.45   3996581.55        0.02684  (06010817)                314251.45
3996581.55        0.02605  (09121905)
        314271.45   3996581.55        0.02540  (09121905)                313529.06
3996060.33        0.04842  (07020819)
        313510.22   3996059.07        0.04449  (07020819)                313491.38
3996062.84        0.04128  (07020819)
```

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 4 YEARS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

```
                         NETWORK
GROUP ID                         AVERAGE CONC                RECEPTOR  (XR, YR, ZELEV,
ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -

ALL       1ST HIGHEST VALUE IS       0.01106 AT (  313531.45,  3996041.55,   125.79,
  125.79,    0.00)  DC
          2ND HIGHEST VALUE IS       0.01096 AT (  313531.45,  3996021.55,   125.79,
  125.79,    0.00)  DC
          3RD HIGHEST VALUE IS       0.01095 AT (  313529.06,  3996060.33,   125.78,
  125.78,    0.00)  DC
          4TH HIGHEST VALUE IS       0.01085 AT (  313531.45,  3996001.55,   125.79,
  125.79,    0.00)  DC
          5TH HIGHEST VALUE IS       0.01071 AT (  313531.45,  3995981.55,   125.78,
  125.78,    0.00)  DC
          6TH HIGHEST VALUE IS       0.01056 AT (  313531.45,  3995961.55,   125.76,
  125.76,    0.00)  DC
          7TH HIGHEST VALUE IS       0.01038 AT (  313531.45,  3995941.55,   125.73,
  125.73,    0.00)  DC
          8TH HIGHEST VALUE IS       0.01017 AT (  313531.45,  3995921.55,   125.73,
  125.73,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00994 AT (  313531.45,  3995901.55,   125.73,
  125.73,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00967 AT (  313531.45,  3995881.55,   125.73,
  125.73,    0.00)  DC
```

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

```
                                                                DATE
                                                  NETWORK
GROUP ID                          AVERAGE CONC     (YYMMDDHH)             RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

ALL      HIGH   1ST HIGH VALUE IS       0.06794  ON 07121805: AT (  313571.45,
3995641.55,   125.90,   125.90,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
```



```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of         7410 Informational Message(s)

 A Total of        35088 Hours Were Processed

 A Total of         6527 Calm Hours Identified

 A Total of          883 Missing Hours Identified (  2.52 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***
```

```
   ********   WARNING MESSAGES   ********
ME W187      70       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

MX W481   35089         MAIN: Data Remaining After End of Year. Number of Hours=
      24

   ************************************
   *** AERMOD Finishes Successfully ***
   ************************************
```

Cancer Risk Calculations:

A. Equation 5.4.1.1: $\boxed{\textbf{Dose-air} = C_{air} \times \{BR/BW\} \times A \times EF \times 10^{-6}}$

1. Dose-air = Dose through inhalation (mg/kg/d)
2. C_{air} = Concentration in air ($\mu g/m^3$)
3. {BR/BW} = Daily Breathing rate normalized to body weight (L/kg body weight - day)
4. A = Inhalation absorption factor (unitless)
5. EF = Exposure frequency (unitless), days/365 days
6. 10^{-6} = Micrograms to milligrams conversion, liters to cubic meters conversion

a: Recommended default values for EQ 5.4.1.1:

1. {BR/BW} = Daily breathing rates by age groupings, see As supplemental information, the assessor may wish to evaluate the inhalation dose by using the mean point estimates in Table 5.6 to provide a range of breathing rates for cancer risk assessment to the risk manager.
2. Table (point estimates) and Table 5.7 (parametric model distributions for Tier III stochastic risk assessment). For Tier 1 residential estimates, use 95th percentile breathing rates in Table 5.6.
3. A = 1
4. EF = 0.96 (350 days/365 days in a year for a resident)

A. Equation 8.2.4 A: $\boxed{\textbf{RISK}_{inh\text{-}res} = \textbf{DOSE}_{air} \times CPF \times ASF \times ED/AT \times FAH}$

7. RISK inh-res = Residential inhalation cancer risk
8. DOSEair = Daily inhalation dose (mg/kg-day)
9. CPF = Inhalation cancer potency factor ($mg/kg\text{-}day^{-1}$)
10. ASF = Age sensitivity factor for a specified age group (unitless)
11. ED = Exposure duration (in years) for a specified age group
12. AT = Averaging time for lifetime cancer risk (years)
13. FAH = Fraction of time spent at home (unitless)

a: Recommended default values for EQ 8.2.4 A:

5. DOSEair = Calculated for each age group from Eq. 5.4.1
6. CPF = Substance-specific (see Table 7.1)
7. ASF = See Section 8.2.1
8. ED = 0.25 years for 3rd trimester, 2 years for 0<2, 7 years for 2<9, 14 years for 2<16, 14 years for 16<30, 54 years for 16-70
9. AT = 70 years*
10. FAH = See Table 8.4

Note: DPM has a CPF of 1.1.

Cancer Risk Results:

Dose (Equation 5.4.1.1)

Exposure Age	Concentration (ug/m3)	Breathing Rate L/kg body weight-day)	Inhalation Absorption Factor	EF	Multiplier	DOSE (mg/kg/day)
Unmitigated						
Infant	0.078	1090	1	0.95890411	0.000001	8.1526E-05
Child	0.078	572	1	0.95890411	0.000001	4.27825E-05
Adult	0.078	261	1	0.95890411	0.000001	1.95214E-05
Mitigated						
Infant	0.01106	1090	1	0.95890411	0.000001	1.156E-05
Child	0.01106	572	1	0.95890411	0.000001	6.06633E-06
Adult	0.01106	233	1	0.95890411	0.000001	2.47108E-06

Cancer Risk (Equation 8.2.4A)

Exposure Age	DOSE (mg/kg/day)	CPF (mg/kg-day^-1)	ASF	Exposure Duration (years)/Averaging Time (years)	RISK
Unmitigated					
Infant	8.1526E-05	1.1	10	0.028571429	2.56E-05
Child	4.27825E-05	1.1	3	0.028571429	4.03E-06
Adult	1.95214E-05	1.1	1	0.028571429	6.14E-07
Mitigated					
Infant	1.156E-05	1.1	10	0.028571429	3.63E-06
Child	6.06633E-06	1.1	3	0.028571429	5.72E-07
Adult	2.47108E-06	1.1	1	0.028571429	7.77E-08

APPENDIX C

ENERGY ESTIMATES

Lombardi Development—Energy Consumption Summary

Date of Last Revision: July 21, 2021

Summary of Energy Use During Construction		(Annually)
Construction vehicle fuel	66,050	gallons (gasoline, diesel)
Construction equipment fuel	31,269	gallons (diesel)
Construction office trailer electricity	15,644	kilowatt hours
Summary of Energy Use During Proposed Operations		(Annually)
Operational vehicle fuel consumption	224,626	gallons (gasoline, diesel)
Operational natural gas consumption	3,048,506	kilo-British Thermal Units
Operational electricity consumption	1,849,780	kilowatt hours

Construction Vehicle Fuel Calculations (Page 1 of 3)

California Air Resource Board (CARB). 2021. EMFAC2017 Web Database. Website: https://arb.ca.gov/emfac/2017/. Accessed April 25, 2021.

Source: EMFAC2017 (v1.0.3) Emissions Inventory
Region Type: County
Region: Tulare
Calendar Year: 2021
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

VMT = Vehicle Miles Traveled
FE = Fuel Economy

Given									*Calculations*	
Region	Calendar Year	Vehicle Class	Model Year	Speed	Fuel	Population	VMT (mi/day)	Fuel Consumption (1000 gallons/day)	FE (mi/gallon)	VMT*FE
Tulare	2021	HHDT	Aggregated	Aggregated	GAS	1.06831211	85.648247	0.019901798	4.30354322	368.5909
Tulare	2021	HHDT	Aggregated	Aggregated	DSL	5893.81043	795437.43	121.6395666	6.53929842	5201603
Tulare	2021	LDA	Aggregated	Aggregated	GAS	182755.156	7415331.5	242.2313633	30.6125985	2.27E+08
Tulare	2021	LDA	Aggregated	Aggregated	DSL	1390.41315	59078.168	1.153818851	51.2022904	3024938
Tulare	2021	LDT1	Aggregated	Aggregated	GAS	19741.5224	690485.93	26.81948246	25.7456844	17777033
Tulare	2021	LDT1	Aggregated	Aggregated	DSL	17.4016233	332.70154	0.012853001	25.8851263	8612.021
Tulare	2021	LDT2	Aggregated	Aggregated	GAS	63741.7354	2354770.9	99.18037868	23.7423063	55907693
Tulare	2021	LDT2	Aggregated	Aggregated	DSL	272.840811	12303.956	0.325600357	37.788522	464948.3
Tulare	2021	LHDT1	Aggregated	Aggregated	GAS	6093.247	198807.46	24.12382269	8.24112581	1638397
Tulare	2021	LHDT1	Aggregated	Aggregated	DSL	7867.65424	266632.46	15.25818818	17.4747128	4659326
Tulare	2021	LHDT2	Aggregated	Aggregated	GAS	976.651213	32330.918	4.496863853	7.18965905	232448.3
Tulare	2021	LHDT2	Aggregated	Aggregated	DSL	2410.4848	84128.147	5.386703653	15.6177418	1313892
Tulare	2021	MDV	Aggregated	Aggregated	GAS	74140.2113	2539086.2	133.9670344	18.9530672	48123471
Tulare	2021	MDV	Aggregated	Aggregated	DSL	1358.02716	56457.982	2.096798733	26.9257993	1520176
Tulare	2021	MHDT	Aggregated	Aggregated	GAS	431.144302	20774.514	4.385103171	4.73752005	98419.68
Tulare	2021	MHDT	Aggregated	Aggregated	DSL	4474.21904	271780.24	30.09939727	9.02942451	2454019

Worker
Weighted Average Fuel Economy 26.95259

Vendor
Weighted Average Fuel Economy 9.340533

Haul
Weighted Average Fuel Economy 6.539058

Construction Vehicle Fuel Calculations (Page 2 of 3)

Construction Schedule

Source: CalEEMod Output

Lombardi Phase 1

CalEEMod Run	Phase Name	Start Date	End Date	Num Days Week	Num Days
Project Construction	Site Preparation	10/1/2021	10/14/2021	5	10
Project Construction	Grading	10/15/2021	11/18/2021	5	25
Project Construction	Building Construction	11/19/2021	8/25/2022	5	200
Project Construction	Paving	8/26/2022	9/12/2022	5	12
Project Construction	Architectural Coating	9/13/2022	9/30/2022	5	14

Construction Trips and VMT

	Trips per Day		Total Trips	Construction Trip Length in Miles				Trips per Phase			VMT per Phase			Fuel Consumption (gallons)		
Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Number of Days per Phase	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trips	Vendor Trips	Hauling Trips	Worker Trips	Vendor Trips	Hauling Trips
Site Preparation	18	0	0	10.8	7.3	20	10	180	0	0	1,944	0	0	72.13	0.00	0.00
Grading	20	0	0	10.8	7.3	20	25	500	0	0	5,400	0	0	200.35	0.00	0.00
Building Construction	212	79	0	10.8	7.3	20	200	42,400	15,800	0	457,920	115,340	0	16,989.84	12,348.33	0.00
Paving	15	0	0	10.8	7.3	20	12	180	0	0	1,944	0	0	72.13	0.00	0.00
Architectural Coating	42	0	0	10.8	7.3	20	14	588	0	0	6,350	0	0	235.61	0.00	0.00

Total Project Construction VMT (miles)
588,898

Total Project Fuel Consumption (gallons)
29,918

Construction Vehicle Fuel Calculations (Page 3 of 3)
Construction Schedule
Source: CalEEMod Output
Lombardi Phase 2

CalEEMod Run	Phase Name	Start Date	End Date	Num Days Week	Num Days
Project Construction	Site Preparation	1/1/2023	1/13/2023	5	10
Project Construction	Grading	1/14/2023	2/17/2023	5	25
Project Construction	Building Construction	2/18/2023	11/24/2023	5	200
Project Construction	Paving	11/25/2023	12/12/2023	5	12
Project Construction	Architectural Coating	12/13/2023	12/31/2023	5	13

Construction Trips and VMT

	Trips per Day		Total Trips	Construction Trip Length in Miles			Number	Trips per Phase			VMT per Phase			Fuel Consumption (gallons)		
Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	of Days per Phase	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trips	Vendor Trips	Hauling Trips	Worker Trips	Vendor Trips	Hauling Trips
Site Preparation	18	0	0	10.8	7.3	20	10	180	0	0	1,944	0	0	72.13	0.00	0.00
Grading	20	0	0	10.8	7.3	20	25	500	0	0	5,400	0	0	200.35	0.00	0.00
Building Construction	256	96	0	10.8	7.3	20	200	51,200	19,200	0	552,960	140,160	0	20,516.03	15,005.57	0.00
Paving	15	0	0	10.8	7.3	20	12	180	0	0	1,944	0	0	72.13	0.00	0.00
Architectural Coating	51	0	0	10.8	7.3	20	13	663	0	0	7,160	0	0	265.67	0.00	0.00

Total Project Construction VMT (miles)
709,568

Total Project Fuel Consumption (gallons)
36,132

Construction Equipment Fuel Calculation (Page 1 of 3)

Source: CalEEMod Output
Lombardi Development

Construction Schedule Phase 1

Construction Area	Phase Type	Start Date	End Date	Num Days Week	Num Days
Project Construction	Site Preparation	10/1/2021	10/14/2021	5	10
Project Construction	Grading	10/15/2021	11/18/2021	5	25
Project Construction	Building Construction	11/19/2021	8/25/2022	5	200
Project Construction	Paving	8/26/2022	9/12/2022	5	12
Project Construction	Architectural Coating	9/13/2022	9/30/2022	5	14

Construction Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of Days	HP Hours	Fuel (gallons/HP-hour)	Diesel Fuel Usage
Site Preparation	Rubber Tired Dozers	3	8	247	0.40	10	23,712.00	0.020	485.18
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37	10	11,484.80	0.019	217.54
Grading	Excavators	2	8	158	0.38	25	24,016.00	0.020	474.63
Grading	Graders	1	8	187	0.41	25	15,334.00	0.021	325.06
Grading	Rubber Tired Dozers	1	8	247	0.40	25	19,760.00	0.020	404.32
Grading	Scrapers	2	8	367	0.48	25	70,464.00	0.025	1,752.00
Grading	Tractors/Loaders/Backhoes	2	8	97	0.37	25	14,356.00	0.019	271.92
Building Construction	Cranes	1	7	231	0.29	200	93,786.00	0.015	1,406.35
Building Construction	Forklifts	3	8	89	0.20	200	85,440.00	0.021	1,777.93
Building Construction	Generator Sets	1	8	84	0.74	200	99,456.00	0.042	4,217.22
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37	200	150,738.00	0.019	2,855.17
Building Construction	Welders	1	8	46	0.45	200	33,120.00	0.026	857.23
Paving	Pavers	2	8	130	0.42	12	10,483.20	0.022	225.52
Paving	Paving Equipment	2	8	132	0.36	12	9,123.84	0.018	167.24
Paving	Rollers	2	8	80	0.38	12	5,836.80	0.019	113.33
Architectural Coating	Air Compressors	1	6	78	0.48	14	3,144.96	0.028	86.98
				Total Construction Equipment Fuel Consumption (gallons)					**15,637.63**

Notes:
Equipment assumptions are provided in the CalEEMod output files.
Source of usage estimates: California Air Resource Board (CARB). 2021. OFFROAD2017 (v1.0.1) Emissions Inventory
Website: https://www.arb.ca.gov/orion/. Accessed April 17, 2021.

Construction Equipment Fuel Calculation (Page 2 of 3)

Source: CalEEMod Output

Lombardi Development

Constructio n Schedule Phase 2

Construction	Phase Type	Start Date	End Date	Num Days Week	Num Days	
Project Constr	Site Preparati	1/1/2023	1/13/2023	5	10	
Project Constr	Grading	1/14/2023	2/17/2023	5	25	
Project Constr	Building Cons	2/18/2023	11/24/2023	5	200	
Project Constr	Paving	11/25/2023	12/12/2023	5	12	
Project Constr	Architectural C	12/13/2023	12/31/2023	5	13	

Constructio n Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of Days	HP Hours	Fuel (gallons/HP-hour)	Diesel Fuel Usage
Site Preparati	Rubber Tired I	3	8	247	0.40	10	23,712.00	0.020	485.18
Site Preparati	Tractors/Load	4	8	97	0.37	10	11,484.80	0.019	217.54
Grading	Excavators	2	8	158	0.38	25	24,016.00	0.020	474.63
Grading	Graders	1	8	187	0.41	25	15,334.00	0.021	325.06
Grading	Rubber Tired I	1	8	247	0.40	25	19,760.00	0.020	404.32
Grading	Scrapers	2	8	367	0.48	25	70,464.00	0.025	1,752.00
Grading	Tractors/Load	2	8	97	0.37	25	14,356.00	0.019	271.92
Building Cons	Cranes	1	7	231	0.29	200	93,786.00	0.015	1,406.35
Building Cons	Forklifts	3	8	89	0.20	200	85,440.00	0.021	1,777.93
Building Cons	Generator Set	1	8	84	0.74	200	99,456.00	0.042	4,217.22
Building Cons	Tractors/Load	3	7	97	0.37	200	150,738.00	0.019	2,855.17
Building Cons	Welders	1	8	46	0.45	200	33,120.00	0.026	857.23
Paving	Pavers	2	8	130	0.42	12	10,483.20	0.022	225.52
Paving	Paving Equipr	2	8	132	0.36	12	9,123.84	0.018	167.24
Paving	Rollers	2	8	80	0.38	12	5,836.80	0.019	113.33
Architectural C	Air Compress	1	6	78	0.48	13	2,920.32	0.028	80.77
					Total Construction Equipment Fuel Consumption (gallons)				**15,631.41**

Notes:

Equipment assumptions are provided in the CalEEMod output files.

Source of usage estimates: California Air Resource Board (CARB). 2021. OFFROAD2017 (v1.0.1) Emissions Inventory

Website: https://www.arb.ca.gov/orion/. Accessed April 17, 2021.

Construction Equipment Fuel Calculation (Page 2 of 2)

OFFROAD2017 (v1.0.1) Emissions Inventory
Region Type: County
Region: Tulare
Calendar Year: 2021
Scenario: All Adopted Rules - Exhaust
Vehicle Classification: OFFROAD2017 Equipment Types
Units: Emissions: tons/day, Fuel Consumption: gallons/year, Activity: hours/year, HP-Hours: HP-hours/year

Region	CalYr	Vehicle Class	Model Year	HP_Bin	Fuel	Fuel (gallons/year)	Horsepower Hours (HP-hours/year)	Fuel (gallons/HP-hour)
Tulare	2021	ConstMin - Cranes	Aggregated	75	Diesel	172.6282983	11512.1442	0.014995321
Tulare	2021	ConstMin - Excavators	Aggregated	175	Diesel	150834.1451	7632194.972	0.019762879
Tulare	2021	ConstMin - Graders	Aggregated	175	Diesel	92273.22152	4352810.346	0.021198539
Tulare	2021	ConstMin - Pavers	Aggregated	175	Diesel	19953.26312	927498.984	0.021512976
Tulare	2021	ConstMin - Paving Equipment	Aggregated	175	Diesel	8349.280237	455506.229	0.018329673
Tulare	2021	ConstMin - Rollers	Aggregated	100	Diesel	48164.43704	2480571.162	0.019416672
Tulare	2021	ConstMin - Rough Terrain Forklifts	Aggregated	100	Diesel	122510.6515	5887366.34	0.020809076
Tulare	2021	ConstMin - Rubber Tired Dozers	Aggregated	300	Diesel	6297.798487	307787.7504	0.020461498
Tulare	2021	ConstMin - Scrapers	Aggregated	300	Diesel	55461.8366	2230628.091	0.024863776
Tulare	2021	ConstMin - Tractors/Loaders/Backhoes	Aggregated	175	Diesel	128891.1789	6804768.512	0.018941303
Tulare	2021	ConstMin - Tractors/Loaders/Backhoes	Aggregated	300	Diesel	77674.84815	4079422.512	0.019040648
Tulare	2021	ConstMin - Trenchers	Aggregated	100	Diesel	10949.12169	420477.0096	0.026039763
Tulare	2021	OFF - ConstMin - Cement and Mortar Mixers	Aggregated	25	Diesel	514.65	15895.75	0.032376579
Tulare	2021	OFF - ConstMin - Concrete/Industrial Saws	Aggregated	50	Diesel	262.8	6142.95	0.042780749
Tulare	2021	OFF - Light Commercial - Generator Sets	Aggregated	50	Diesel	23557.1	555394.95	0.042415042
Tulare	2021	OFF - Light Commercial - Welders	Aggregated	50	Diesel	39274	1517816	0.025875337
Tulare	2021	OFF - Light Commercial - Air Compressors	Aggregated	50	Diesel	8551.95	309804.7	0.027604326

Construction Office Electricity Calculation

Energy Appendix: CalEEMod Typical Construction Trailer
Typical Construction Trailer - Tulare County, Annual

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	6955.2	1.2335	1.0000e-004	1.0000e-005	1.2398
Total		**1.2335**	**1.0000e-004**	**1.0000e-005**	**1.2398**

kWh/yr = kilowatt hours per year

Energy by Land Use - Electricity

Annual	6,955	kWh/yr
Total Over Construction	**15,644**	**kWh**

Total Construction Schedule

Start (Phase 1)	10/1/2021
End (Phase 2)	12/31/2023
Total Calendar Days	821
Years	2.25

Operational Fuel Calculation—Project-generated Operational Trips (Page 1 of 2)

California Air Resource Board (CARB). 2021. EMFAC2021Web Database. Website: https://arb.ca.gov/emfac/emissions-inventory/0a50ed20a0489e6e0c536dc7f303dcf8eeef4948. Accessed July 21, 2021.

Source: EMFAC2017 (v1.0.3) Emissions Inventory
Region Type: County
Region: Tulare
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

VMT = Vehicle Miles Traveled
FE = Fuel Economy

				Given					*Calculations*	
Region	Calendar Year	Vehicle Class	Model Year	Speed	Fuel	Population	VMT	Fuel Consumption	FE	VMT*FE
TULARE	2024	LDA	Aggregated	Aggregated	GAS	200091.6846	7948734.092	239.1322005	33.23991531	264215248
TULARE	2024	LDA	Aggregated	Aggregated	DSL	1810.35844	75763.13804	1.36718972	55.41523386	4198432.012
									Sum of VMT*FE	**268413680.1**
									Total VMT	**8024497.23**
									Weighted Average Fuel Economy	**33.44928316**
TULARE	2024	LDT1	Aggregated	Aggregated	GAS	20488.93803	722692.4059	25.74238503	28.07402675	20288885.93
TULARE	2024	LDT1	Aggregated	Aggregated	DSL	13.23692085	250.8640441	0.0094275	26.60981668	6675.446225
TULARE	2024	LDT2	Aggregated	Aggregated	GAS	66393.26811	2416747.22	91.611379	26.38042617	63754821.62
TULARE	2024	LDT2	Aggregated	Aggregated	DSL	389.7745793	16615.97335	0.403370826	41.19279894	684458.4493
TULARE	2024	MDV	Aggregated	Aggregated	GAS	68671.60082	2268444.35	110.7232681	20.4875126	46474782.21
TULARE	2024	MDV	Aggregated	Aggregated	DSL	1548.204988	59869.73818	2.07427453	28.86297706	1728018.88
									Sum of VMT*FE	**132937642.5**
									Total VMT	**5484620.552**
									Weighted Average Fuel Economy	**24.23825701**
TULARE	2024	LHDT1	Aggregated	Aggregated	GAS	5501.778399	178434.998	21.00934343	8.493125858	1515470.895
TULARE	2024	LHDT1	Aggregated	Aggregated	DSL	7281.999596	233593.306	13.01713437	17.94506375	4191846.767
TULARE	2024	LHDT2	Aggregated	Aggregated	GAS	904.5065134	29016.25369	3.931789602	7.379910073	214137.3429
TULARE	2024	LHDT2	Aggregated	Aggregated	DSL	2329.309164	76981.39716	4.785693072	16.08573638	1238302.461
TULARE	2024	MHDT	Aggregated	Aggregated	GAS	422.5089333	21789.92018	4.371477934	4.984565978	108613.2948
TULARE	2024	MHDT	Aggregated	Aggregated	DSL	4433.183324	267883.1613	27.49937598	9.741426913	2609564.237
TULARE	2024	HHDT	Aggregated	Aggregated	GAS	0.862408169	124.8688936	0.02657245	4.699186305	586.7821946
TULARE	2024	HHDT	Aggregated	Aggregated	DSL	6329.263049	845760.5033	118.792027	7.119673978	6021539.047
									Sum of VMT*FE	**15900060.83**
									Total VMT	**1653584.408**
									Weighted Average Fuel Economy	**9.615512063**
TULARE	2024	MCY	Aggregated	Aggregated	GAS	9526.022125	64209.76551	1.696535377	37.84758419	2430184.506
									Weighted Average Fuel Economy	**37.84758419**
TULARE	2024	MH	Aggregated	Aggregated	GAS	920.456244	8046.620171	1.642127819	4.900118054	39429.38877
TULARE	2024	MH	Aggregated	Aggregated	DSL	532.2699813	4307.384326	0.438299798	9.827484177	42330.75131
TULARE	2024	OBUS	Aggregated	Aggregated	GAS	141.0723618	6105.664976	1.256606333	4.858852624	29666.52629
TULARE	2024	OBUS	Aggregated	Aggregated	DSL	116.0424236	8826.770702	1.092540604	8.079123716	71312.57251
TULARE	2024	SBUS	Aggregated	Aggregated	GAS	83.93123145	4049.068487	0.440521583	9.191532589	37217.14495
TULARE	2024	SBUS	Aggregated	Aggregated	DSL	508.5736574	15810.98292	1.945828199	8.125580116	128473.4085
TULARE	2024	UBUS	Aggregated	Aggregated	GAS	75.71909004	6827.011037	1.479097952	4.615658502	31511.15154
TULARE	2024	UBUS	Aggregated	Aggregated	DSL	22.03429153	2084.75395	0.208996869	9.975048728	20795.52224
									Sum of VMT*FE	**400736.4661**
									Total VMT	**56058.25657**
									Weighted Average Fuel Economy	**7.148571693**

Operational Fuel Calculation—Project-generated Operational Trips (Page 2 of 2)

Total Operational VMT

Lombardi Development - Build Out Year (Phase 1 and Phase 2)

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	1,232.64	1,232.64	1232.64	3,474,484	3,474,484
Total	1,232.64	1,232.64	1,232.64	3,474,484	3,474,484

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	2.74	6.88	7.69	8,617	8,617
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	991.20	1,001.70	897.75	2,760,527	2,760,527
Total	993.94	1,008.58	905.44	2,769,145	2,769,145

Total VMT 6,243,629

By Vehicle Type (Average Fleet Mix for the 2022 Operation Year for All Project Components)

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.602332	0.038115	0.207813	0.116157	0.015815	0.001829	0.004249	0.003068	0.002363	0.001519	0.005062	0.001083	0.000594

	Fraction of 1	Percent of Vehicle Trips	Annual VMT	Daily VMT	Average Fuel Economy (miles/gallon)	Total Daily Fuel Consumption (gallons)	Total Annual Fuel Consumption (gallons)
Passenger Cars (LDA)	0.5099	51.0	3,183,626	8,722	33.45	260.8	95,178
Light Trucks and Medium Vehicles (LDT1, LDT2, and MDV)	0.3931	39.3	2,454,614	6,725	24.24	277.5	101,270
Light-Heavy to Heavy-Heavy Diesel Trucks	0.0673	6.7	420,234	1,151	9.62	119.7	43,704
Motorcycles	0.0236	2.4	147,037	403	37.85	10.6	3,885
Other	0.0061	0.6	38,117	104	7.15	14.6	5,332
Total	—	100	6,243,629	17,106			249,369

Project Operations Natural Gas Use

Source: CalEEMod Output
Lombardi Development - Buildout Year Operations

kBTU/yr = kilo-British Thermal Units/year

	Natural Gas Use (kBTU/yr)	
Phase 1 - Single- Family Residential	3,041,670	
Phase 1 - Other Asphalt Surfaces	0	
Phase 2 - Single Family Residenti	6,836	
Phase 2 - City Park	0	
Phase 2 - Other Asphalt Surfaces	0	
Total	**3,048,506**	**kBTU/yr**

Project Operations Electricity Use

Source: CalEEMod Output

Lombardi Development (Phase 1 and 2)

kWh/yr = kilowatt hours per year

	Electricity Use (kWh/yr)	
Phase 1 - Single- Family Residential	0	
Phase 1 - Other Asphalt Surfaces	1,016,190	
Phase 2 - Single Family Residenti	833,590	
Phase 2 - City Park	0	
Phase 2 - Other Asphalt Surfaces	0	
Total	**1,849,780**	**kWh/yr**

EnergyUseLandUseSubType	T24E	NT24E	LightingElect	T24NG	NT24NG
Convenience Market With Gas Pumps	1.91	2.3	3.71	8.53	2.08
Fast Food Restaurant with Drive Thru	5.85	16.25	6.17	35.36	174.7
General Office Building	2.34	3.58	2.92	12.64	0.28
Parking Lot	0	0	0.35	0	0
Regional Shopping Center	1.91	2.3	3.71	8.53	2.08
Unrefrigerated Warehouse-No Rail	0.93	5.13	3.22	16.86	1.05

Appendix C

Traffic Impact Study

Project No: 524-15

TRAFFIC STUDY

PROPOSED RESIDENTIAL DEVELOPMENT
WESTWOOD STREET & WESTFIELD AVENUE
CITY OF PORTERVILLE

Prepared for:

Crawford & Bowen Planning, Inc.

August 2021

Prepared by:

RUETTGERS & SCHULER
CIVIL ENGINEERS

1800 30th Street, Suite 260
Bakersfield, California 93301

Ian J. Parks, RCE 58155

REGISTERED PROFESSIONAL ENGINEER
IAN JEFFREY PARKS
No. C58155
Exp. 6-30-22
CIVIL
STATE OF CALIFORNIA

TABLE OF CONTENTS

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INTRODUCTION

The purpose of this study is to evaluate the potential traffic impacts of a proposed residential development located on the northeast corner of Westwood Street and Westfield Avenue in the City of Porterville, California. A vicinity map is presented in Figure 1 and a location map is presented in Figure 2.

The study methodology and vehicle miles traveled analysis is consistent with the California Department of Transportation (Caltrans) "Guide for the Preparation of Traffic Impact Studies," dated December 2002, County of Tulare "SB 743 Guidelines" dated June 8, 2020, and Section 15064.3(b) of the California Environmental Quality Act (CEQA), which became effective July 1, 2020. The scope of the study includes seven intersections (four signalized, three stop-controlled) and was developed in coordination with staff from the City of Porterville.

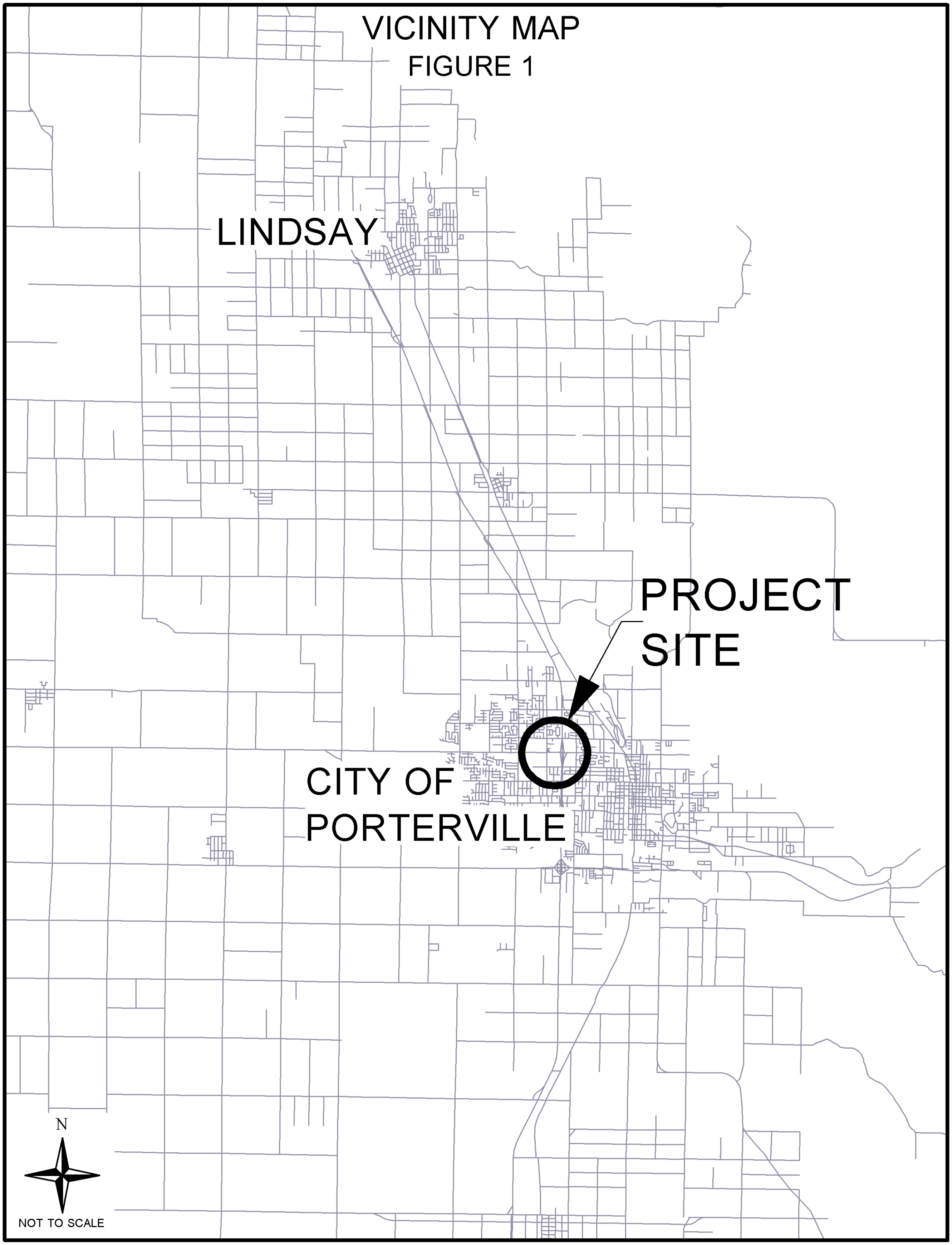
A. Project Land Use and Site Access

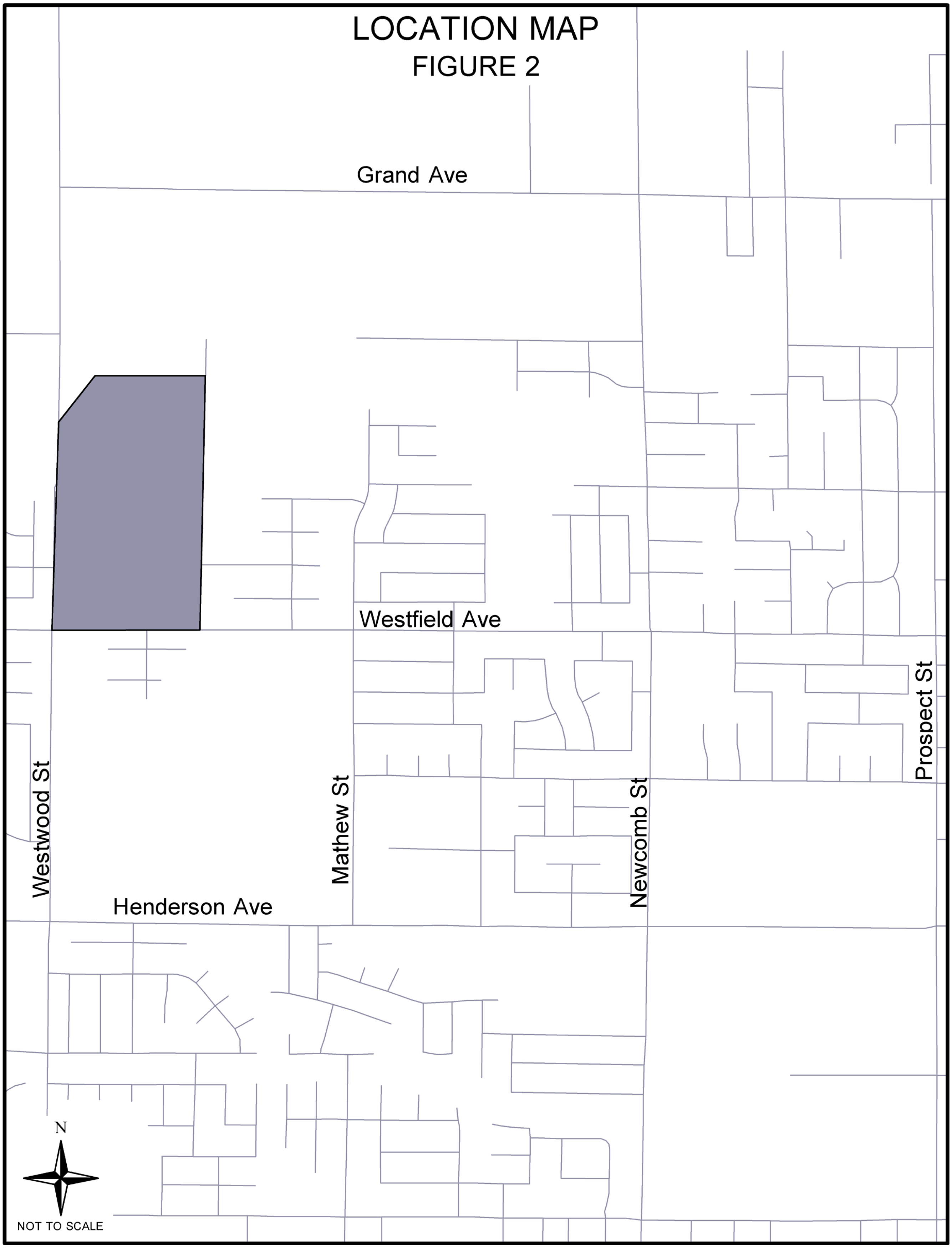
The project site is situated on approximately 56.06 gross acres of undeveloped vacant land. The property is zoned RS-1 (Very Low Density Residential) and has a General Plan Land Use designation of Low Density Residential. The proposed development would include 261 dwelling units. A tentative subdivision plan is provided in Figure 3, which shows street and lot configurations.

The site is bounded by Westwood Street to the west, Westfield Avenue to the south, Summit Charter Academy – Lombardi Campus to the north, and Lombardi Street to the east.

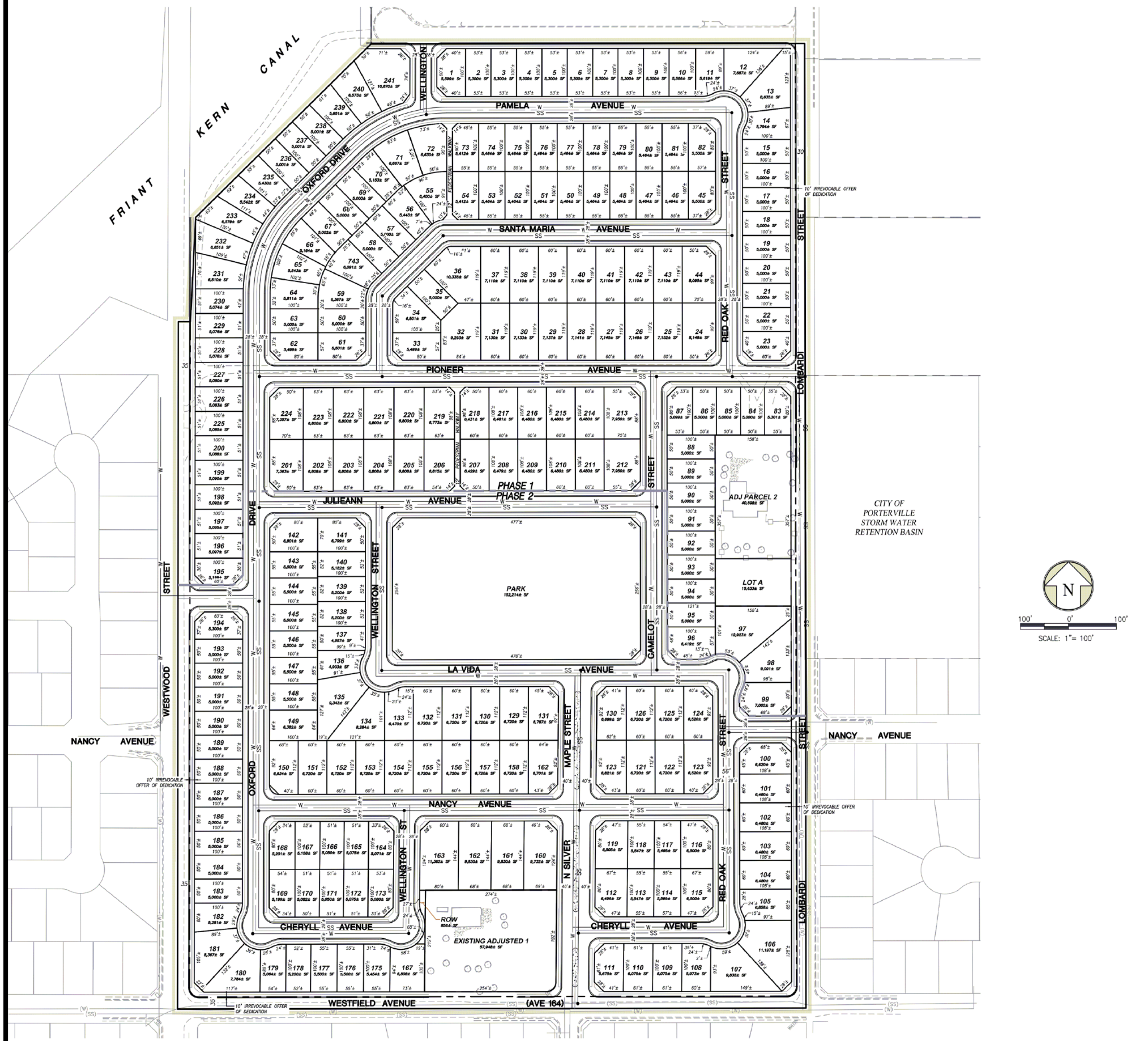
B. Existing Land Uses in Project Vicinity

Residential land uses bound the project site to the east, west, and south. Educational land use bounds the site to the north.


VICINITY MAP
FIGURE 1
LINDSAY
PROJECT SITE
CITY OF PORTERVILLE
N
NOT TO SCALE


LOCATION MAP
FIGURE 2
Grand Ave
Westfield Ave
Henderson Ave
Westwood St
Mathew St
Newcomb St
Prospect St
N
NOT TO SCALE

SITE PLAN
FIGURE 3



C. Roadway Descriptions

Henderson Avenue is a major (four-lane) east-west arterial that provides access to residential and commercial land uses. Henderson Avenue includes an interchange with State Route 65.

Newcomb Street is a major (four-lane) north-south arterial located approximately 0.75 miles west of State Route 65. Within the study area, it provides access to generally residential land uses and Monache High School.

Prospect Street is a north-south roadway located approximately 0.25 miles west of State Route 65. It is designated as a major (four-lane) arterial between Morton Avenue and Westfield Avenue and provides access to residential and commercial land uses within the study area.

Westfield Street is a minor (two-lane) east-west arterial. Within the study area, Westfield Street provides access to residential land uses and Westfield Elementary School.

Westwood Street is a major (four-lane) north-south arterial that extends across western Porterville providing access to both residences and commercial land uses. It exists as a 4-lane roadway within the project vicinity with curb and gutter along developed areas.

PROJECT TRIP GENERATION

The project trip generation volumes shown in Table 1 were estimated using the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition (2017). Trip rates, equations and directional splits for ITE Land Use Code 210 Single Family Detached Housing were used to estimate project trips for weekday peak hour of adjacent street traffic based on information provided by the project applicant. The AM and PM peak hours of adjacent street traffic were determined to be between 7:15 AM and 8:15 AM, and between 4:30 PM and 5:30 PM, based on a review of two-hour AM & PM peak hour vehicle turn movement counts taken May 2021.

Table 1
Project Trip Generation

General Information			Daily Trips		AM Peak Hour Trips			PM Peak Hour Trips		
ITE Code	Development Type	Variable	ADT RATE	ADT	Rate	In % Split/ Trips	Out % Split/ Trips	Rate	In % Split/ Trips	Out % Split/ Trips
210	Single-Family detached Housing	261 Dwelling Units	eq	2513	eq	25% 48	75% 143	eq	63% 161	37% 94

PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

The distribution of project peak hour trips is shown in Table 2 and represents the movement of traffic accessing the project site by direction. The project trip distribution was developed based on site location and travel patterns anticipated for the proposed land uses.

Table 2
Project Trip Distribution

Direction	Percent
North	10
East	50
South	35
West	5

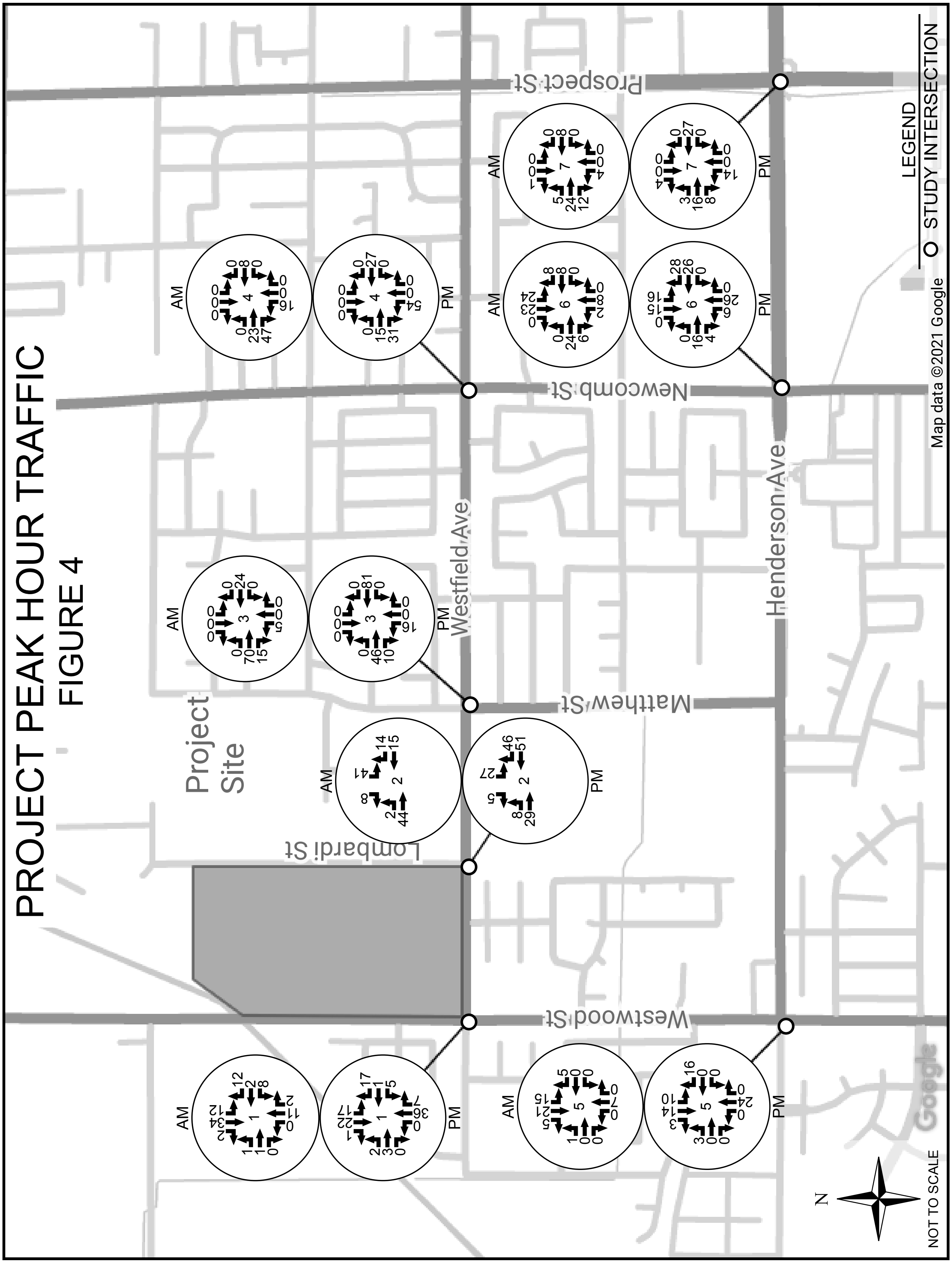
Project peak hour trips were assigned to the study intersections as shown in Figure 4. Project trip assignment was developed based on trip generation, trip distribution and likely travel routes for traffic accessing the project site.

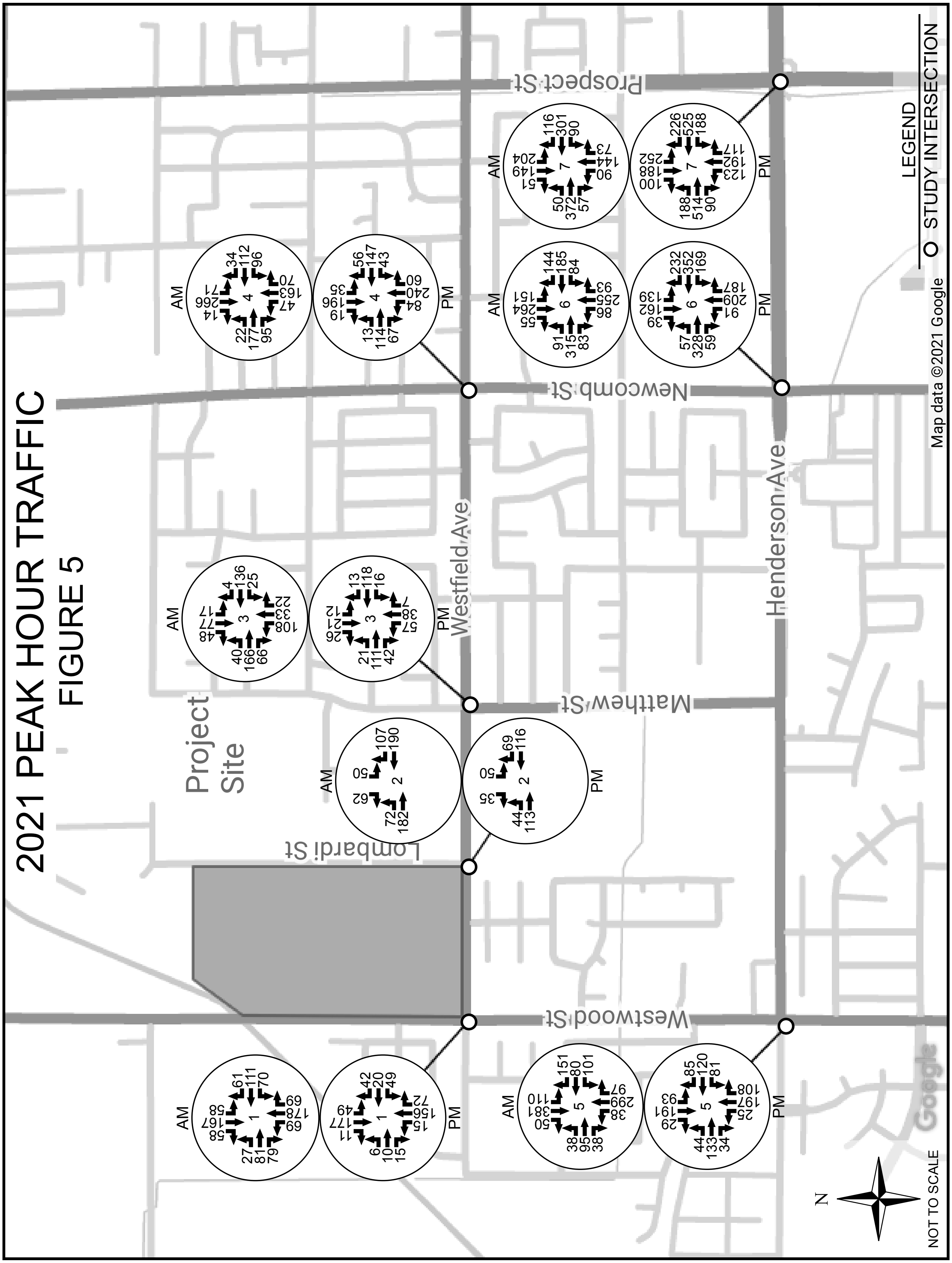
EXISTING AND FUTURE TRAFFIC

Existing peak hour turning movement counts were obtained in May 2021 and compared to pre-COVID turning movement volumes. It was determined that no adjustment factor was necessary due to traffic being generally similar to historical count data with applicable growth rates.

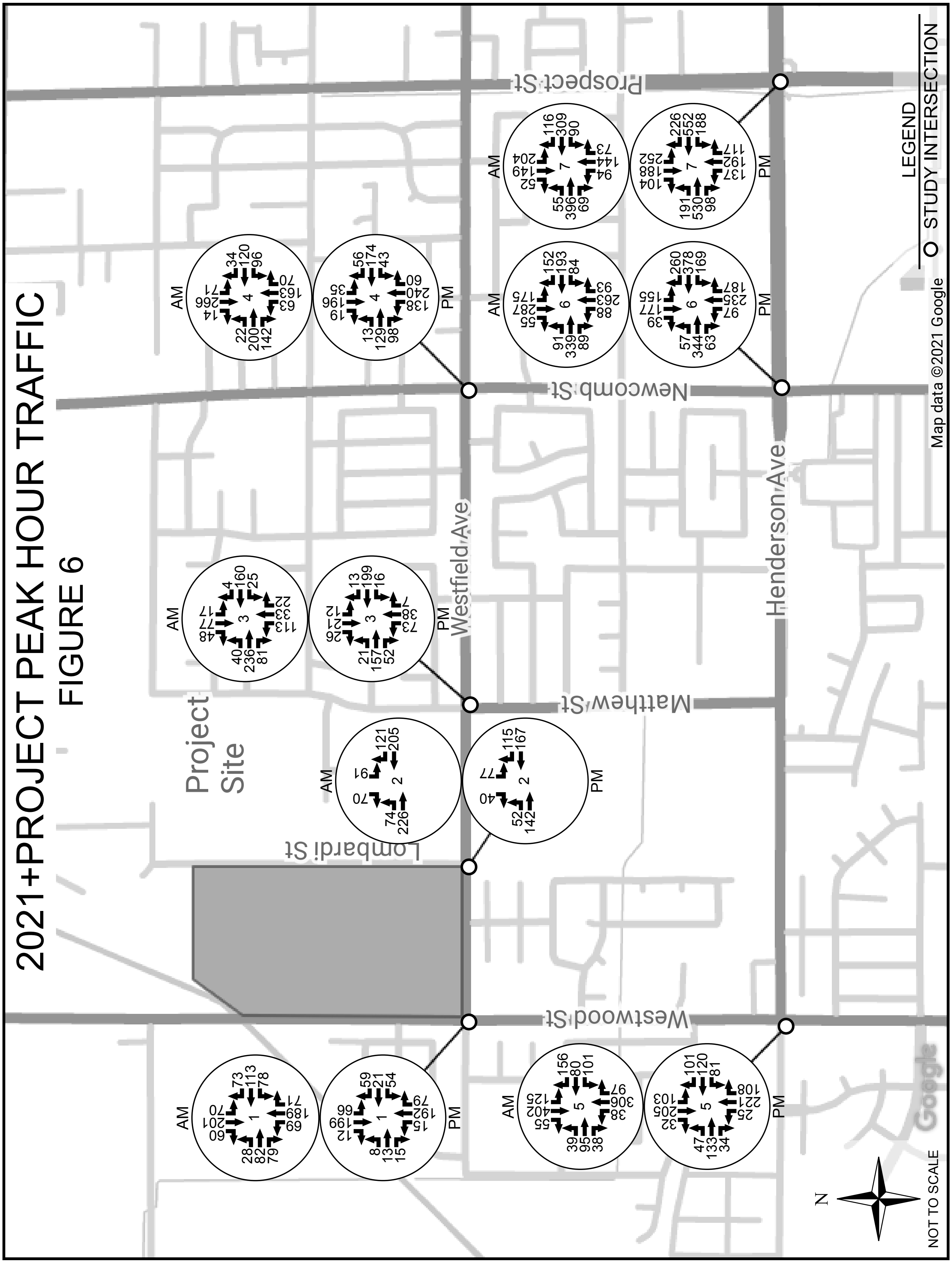
Average annual growth rates ranging between 1.5 and 4.58 percent were applied to the 2021 peak hour volumes to estimate peak hour volumes for the year 2041. These growth rates were developed based on a review of historical count data and output from TCAG's regional travel demand model. Cumulative volumes were estimated based on information provided by the City of Porterville regarding build year, land use, size and location for each pending development.

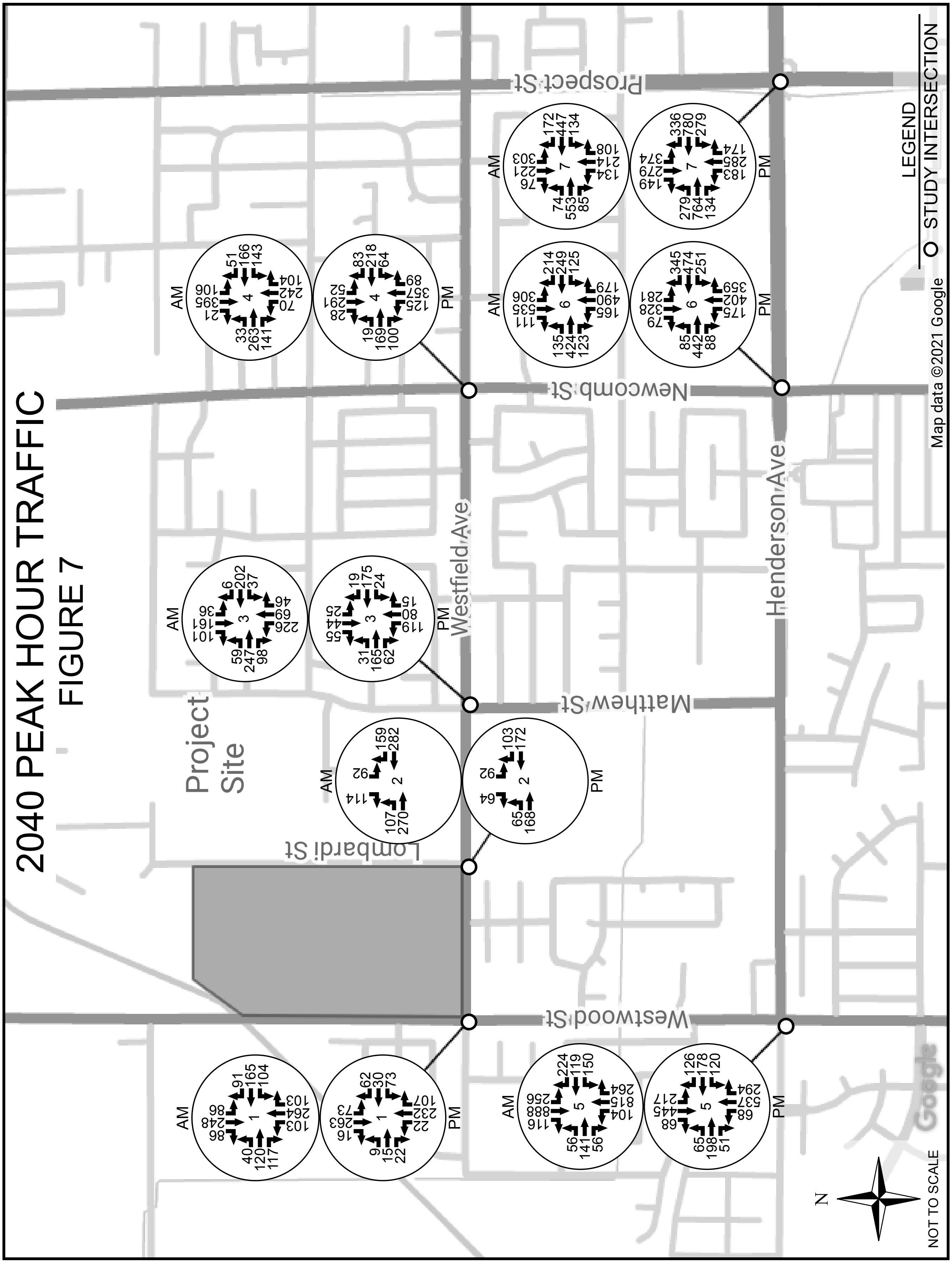
Existing peak hour volumes are shown in Figure 5, and existing plus project peak hour volumes are shown in Figure 6. Future volumes for the year 2041, both without and with project traffic, are shown in Figures 7 and 8, respectively.


PROJECT PEAK HOUR TRAFFIC
FIGURE 4
Project Site
Prospect St
Newcomb St
Matthew St
Lombardi St
Westwood St
Westfield Ave
Henderson Ave
AM
PM
LEGEND
STUDY INTERSECTION
Map data ©2021 Google
N
NOT TO SCALE



RUETTGERS & SCHULER CIVIL ENGINEERS


2021+PROJECT PEAK HOUR TRAFFIC
FIGURE 6
Project Site
Prospect St
Newcomb St
Matthew St
Lombardi St
Westwood St
Westfield Ave
Henderson Ave
LEGEND
STUDY INTERSECTION
Map data ©2021 Google
NOT TO SCALE
N



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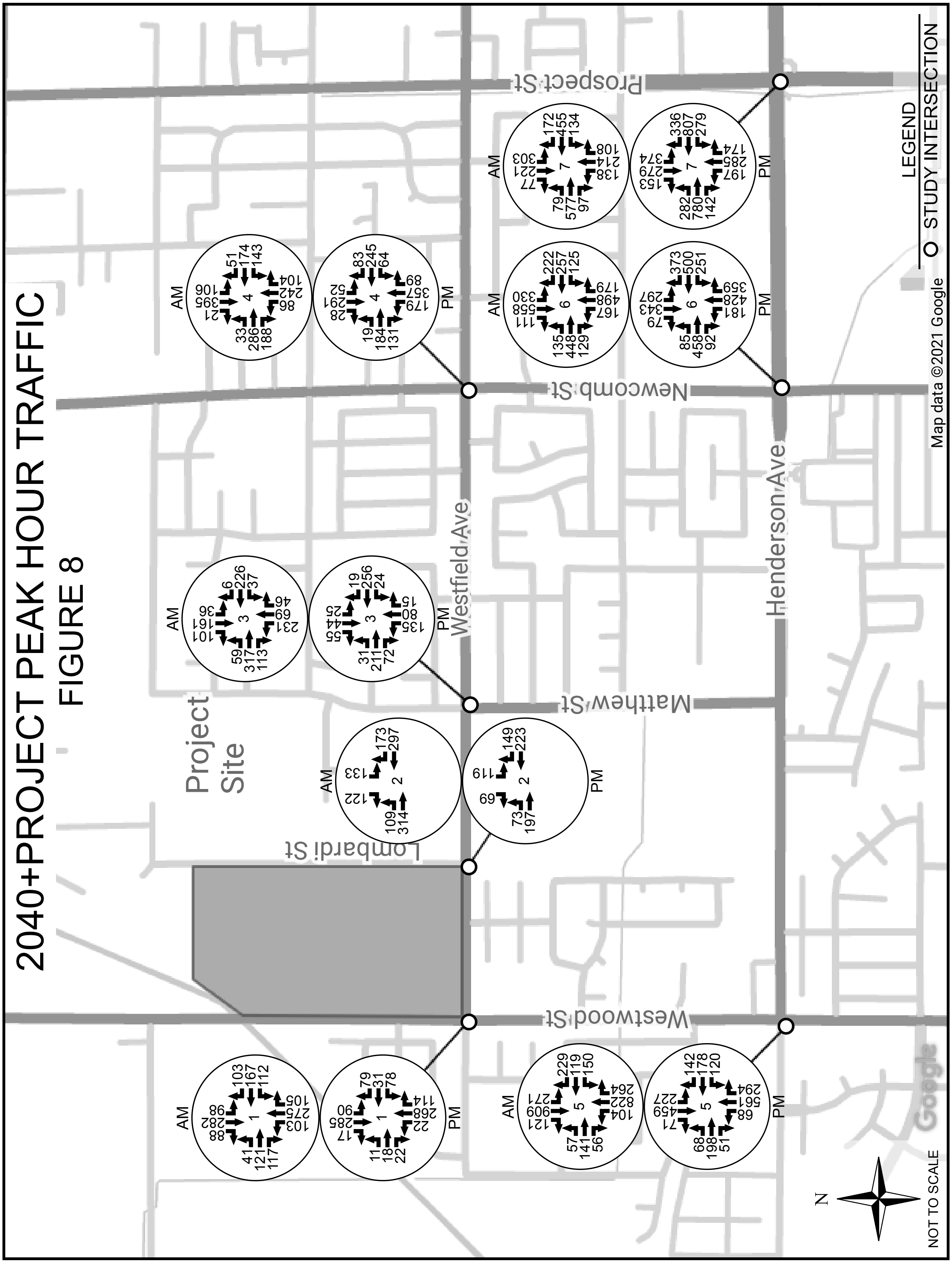


Ruettgers & Schuler Civil Engineers

INTERSECTION ANALYSIS

A capacity analysis of the study intersections was conducted using Synchro 9 software from Trafficware. This software utilizes the capacity analysis methodology in the Transportation Research Board's Highway Capacity Manual 2010 (HCM 2010). The analysis was performed for each of the following traffic scenarios.

- Existing (2021)
- Existing (2021) + Project
- Future (2041)
- Future (2041) + Project

Level of service (LOS) criteria for unsignalized and signalized intersections, as defined in HCM 2010, are presented in the tables below. The City of Porterville and Tulare County Regional Transportation Plan designate LOS D as the minimum acceptable intersection peak hour level of service.

LEVEL OF SERVICE CRITERIA
UNSIGNALIZED INTERSECTION

Level of Service	Average Control Delay (sec/veh)	Expected Delay to Minor Street Traffic
A	≤ 10	Little or no delay
B	> 10 and ≤ 15	Short delays
C	> 15 and ≤ 25	Average delays
D	> 25 and ≤ 35	Long delays
E	> 35 and ≤ 50	Very long delays
F	> 50	Extreme delays

LEVEL OF SERVICE CRITERIA
SIGNALIZED INTERSECTIONS

Level of Service	Average Control Delay (sec/veh)	Volume-to-Capacity Ratio
A	≤ 10	< 0.60
B	> 10 and ≤ 20	0.61 - 0.70
C	> 20 and ≤ 35	0.71 - 0.80
D	> 35 and ≤ 55	0.81 - 0.90
E	> 55 and ≤ 80	0.91 - 1.00
F	> 80	> 1.00

Peak hour level of service for the study intersections is presented in Tables 3a and 3b. Intersection delay in seconds per vehicle is shown within parentheses for intersections operating below LOS D.

Table 3a
Intersection Level of Service
Weekday PM Peak Hour

#	Intersection	Control	2021	2021+ Project	2041	2041+ Project	2040+ Project w/Mitigation[1]
1	Westwood St & Westfield Ave	AWSC	A	B	B	C	B[2]
2	Lombardi St & Westfield Ave	SB	B	B	B	C	B[2]
3	Matthew St & Westfield Ave	AWSC	A	A	B	B	C[2]
4	Newcomb St & Westfield Ave	Signal	B	C	C	C	-
5	Westwood St & Henderson Ave	Signal	C	C	C	D	D[2]
6	Newcomb St & Henderson Ave	Signal	C	C	D	D	-
7	Prospect St & Henderson Ave	Signal	D	D	D	D	-

[1]See Table 6 for mitigation measures
[2]Mitigation necessary due to AM Peak Hour traffic

Table 3b
Intersection Level of Service
Weekday AM Peak Hour

#	Intersection	Control	2021	2021+ Project	2041	2041+ Project	2040+ Project w/Mitigation[1]
1	Westwood St & Westfield Ave	AWSC	B	C	F (55.0)	F (62.1)	B
2	Lombardi St & Westfield Ave	SB	B	C	D	F (51.1)	C
3	Matthew St & Westfield Ave	AWSC	B	B	E (38.9)	E (48.8)	B
4	Newcomb St & Westfield Ave	Signal	B	B	C	C	-
5	Westwood St & Henderson Ave	Signal	C	C	E (57.7)	E (59.8)	D
6	Newcomb St & Henderson Ave	Signal	C	C	D	D	-
7	Prospect St & Henderson Ave	Signal	C	C	C	C	-

[1]See Table 6 for mitigation measures

TRAFFIC SIGNAL WARRANT ANALYSIS

Peak hour signal warrants were evaluated for the one unsignalized intersection within the study based on the 2014 California Manual on Uniform Traffic Control Devices (2014 CA MUTCD). Peak hour signal warrants assess delay to traffic on minor street approaches when entering or crossing a major street. Signal warrant analysis results are shown in Tables 4a and 4b.

Table 4a
Traffic Signal Warrants
Weekday PM Peak Hour

		2021			2021+Project			2041			2041+Project		
#	Intersection	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met
1	Westwood St at Westfield Ave	480	111	NO	563	134	NO	713	165	NO	796	188	YES
2	Lombardi St at Westfield Ave	342	85	NO	476	117	NO	508	156	NO	642	188	YES
3	Matthew St at Westfield Ave	321	102	NO	458	118	NO	476	214	NO	613	230	YES

Table 4b
Traffic Signal Warrants
Weekday AM Peak Hour

		2021			2021+Project			2041			2041+Project		
#	Intersection	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met
1	Westwood St at Westfield Ave	599	242	YES	660	264	YES	890	360	YES	951	382	YES
2	Lombardi St at Westfield Ave	551	112	NO	626	161	NO	818	206	YES	893	255	YES
3	Matthew St at Westfield Ave	437	163	NO	546	168	NO	649	341	YES	758	346	YES

It is important to note that a signal warrant defines the minimum condition under which signalization of an intersection might be warranted. Meeting this threshold does not suggest traffic signals are required, but rather, that other traffic factors and conditions be considered in order to determine whether signals are truly justified.

It is also noted that signal warrants do not necessarily correlate with level of service. An intersection may satisfy a signal warrant condition and operate at or above an acceptable level of service, or operate below an acceptable level of service and not meet signal warrant criteria.

ROADWAY ANALYSIS

An analysis of peak hour level of service for roadway segments within the study area was conducted using HCS software from McTrans. This software utilizes the capacity analysis methodology contained in HCM 2010. The analysis was performed for the following traffic scenarios:

- Existing (2021)
- Existing (2021) + Project
- Future (2041)
- Future (2041) + Project

Level of service analysis results are presented in Table 5. The City of Porterville and Tulare County Regional Transportation Plan designate LOS D as the minimum acceptable level of service for roadways.

Table 5
Roadway Level of Service

Street	2021 Directional LOS		2021+Project Directional LOS		2041 Directional LOS		2041+Project Directional LOS		2035+Project w/Mitigation[1] Directional LOS	
	N or E AM/PM	S or W AM/PM	N or E AM/PM	S or W AM/PM	N or E AM/PM	S or W AM/PM	N or E AM/PM	S or W AM/PM	N or E AM/PM	S or W AM/PM
Henderson Ave: Westwood St - Newcomb St	A/A	A/A	A/A	A/A	A/A	A/A	A/A	A/A	-	-
Henderson Ave: Newcomb St - Prospect St	A/A	A/A	A/A	A/A	A/B	A/B	A/B	A/B	-	-
Newcomb St: Westfield Ave - Henderson Ave	C/C	C/C	C/C	C/C	E/D	E/D	E/D	E/D	A/A	B/A
Westfield Ave: Westwood St - Lombardi St	B/A	B/A	B/B	B/B	C/B	C/B	C/B	C/B	-	-
Westfield Ave: Lombardi St - Matthew St	B/B	B/B	B/B	B/B	C/B	C/B	C/B	C/C	-	-
Westwood St: Westfield Ave - Henderson Ave	C/B	C/B	C/B	C/B	E/C	E/C	E/C	E/C	B/A	B/A

MITIGATION

Intersection and roadway segment improvements needed by the year 2041 to maintain or improve the operational level of service of the street system in the vicinity of the project are presented in Tables 6 & 7, respectively. Shown also is the project's percent share of the cost for these improvements.

Table 6
Future Intersection Improvements and Local Mitigation

#	Intersection	Mitigation Required by 2041	Percent Share
1	Westwood St & Westfield Ave	Install Traffic Signal	26.88%
2	Lombardi St & Westfield Ave	Install Traffic Signal	41.19%
3	Matthew St & Westfield Ave	Install Traffic Signal	31.55%
5	Westwood St & Henderson Ave	Modify Northbound Right Turn Lane to a Shared Northbound Through Left Turn Lane – Striping Modification Only	5.40%

Table 7
Future Roadway Improvements and Local Mitigation

Roadway Segment	Mitigation Required by 2041	Percent Share
Newcomb St: Westfield Ave – Henderson Ave	Add Two Lanes	11.08%
Westwood St: Westfield Ave – Henderson Ave	Add Two Lanes	7.87%

Project percent share is calculated using the following formula:

$$\%\ \text{Share} = \frac{\text{Project Traffic}}{(\text{Future+Project Traffic}) - \text{Existing Traffic}} \times 100\%$$

VMT ANALYSIS

An evaluation of vehicle miles traveled (VMT) for project traffic was conducted in accordance with California Environmental Quality Act (CEQA) requirements. The City of Porterville has adopted the "County of Tulare SB 743 Guidelines", dated June 8, 2020, which contain recommendations regarding VMT assessment, significance thresholds and mitigation measures.

Analysis

Baseline VMT is was determined utilizing data from the California Statewide Travel Demand Model (CSTDM). The proposed residential project is located in Traffic Analysis Zone (TAZ) 2729, which has an average VMT/capita of 8.09 miles. The proposed residential project is considered a typical project within the TAZ and therefore the project would be expected to have the same VMT per capita. There are no special considerations with the project to assume the project would produce a VMT/capita lower than the average for the TAZ. The threshold of significance for residential project VMT/capita is if the project VMT is below the average in the TAZ where the project is located. Since VMT/capita is assumed to be equal to the average for the aforementioned zone, it is anticipated that the proposed project will have a significant transportation impact prior to mitigation.

Mitigation

The Tulare County guidelines include detailed instructions for mitigation if a project has significant impacts. The guidelines state "The preferred method of VMT mitigation in Tulare County is for project applicants to provide transportation improvements that facilitate travel by walking, bicycling, or transit." In accordance with these guidelines, a survey was conducted within a half mile of the project to determine any pedestrian, bicycle or transit facilities deficiencies exist. After review, the existing bus stop located along Westfield Avenue was identified as a facility which could be improved to encourage increased transit use. The current bus stop does not include any improvements. The proposed improvements will include a new shelter, bench, signage and improved bus pullout. Total project cost is estimated at approximately $60,000. The guidelines include a minimum cost for mitigation of $20 per daily trip generated by the project. As shown in Table 1, the project is anticipated to generate 2,513 daily trips, which equates to a target value of improvements of $50,260.

Pursuant to the guidelines, if a project provides mitigation which meets the minimum threshold listed above, the project can presume a 1% reduction in VMT. The assumed VMT/capita reduction is 1% of 8.09 or 0.08. The resulting VMT/capita after mitigation is 8.01 which is below the average VMT/capita in the TAZ which the project is located. After mitigation, the project will have a less than significant transportation impact.

SUMMARY AND CONCLUSIONS

The purpose of this study is to evaluate the potential traffic impacts of a proposed residential development located on the northeast corner of Westwood Street and Westfield Avenue in the City of Porterville, California.

All eight study intersections currently operate at or above LOS D during peak hours with and without project traffic. In the future 2041 scenario, four intersections fall below LOS D and will require mitigation. With the addition of the mitigation measures identified in Table 6, all intersections will operate at acceptable levels.

All roadway segments within the scope of the study currently operate above LOS D during peak hours prior to, and with the addition of project traffic. Two roadway segments are anticipated to fall below an acceptable level of service in the year 2041 prior to the addition of project traffic as shown in Table 5. Both roadway segments can be mitigated to operate above a LOS D with improvements shown in Table 7.

Project VMT analysis showed a VMT which was equal to the existing local VMT in the area, which indicates a transportation impact under CEQA. With implementation of the mitigation measures identified above for reduction of VMT, the project will have a less than significant transportation impact.

REFERENCES

1. California Manual on Uniform Traffic Control Devices for Streets and Highways, 2014 Edition, California Department of Transportation (Caltrans)
2. City of Porterville 2030 General Plan
3. County of Tulare SB 743 Guidelines, June 8, 2020
4. Highway Capacity Manual 2010, Transportation Research Board
5. Interactive Traffic Counts Map, Tulare County Association of Governments (TCAG)
6. Trip Generation Manual, 10th Edition, Institute of Transportation Engineers (ITE)

APPENDIX

RUETTGERS & SCHULER CIVIL ENGINEERS

Intersection 1
Westwood St & Westfield Ave

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	6	10	15	0	49	20	42	0	15	156	72	0	49	177	11
Future Vol, veh/h	0	6	10	15	0	49	20	42	0	15	156	72	0	49	177	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	11	16	0	53	22	46	0	16	170	78	0	53	192	12
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	8.4	9.2	10.2	9.8
HCM LOS	A	A	B	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	19%	44%	100%	0%
Vol Thru, %	0%	68%	32%	18%	0%	94%
Vol Right, %	0%	32%	48%	38%	0%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	228	31	111	49	188
LT Vol	15	0	6	49	49	0
Through Vol	0	156	10	20	0	177
RT Vol	0	72	15	42	0	11
Lane Flow Rate	16	248	34	121	53	204
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.026	0.341	0.048	0.17	0.084	0.291
Departure Headway (Hd)	5.678	4.952	5.106	5.078	5.667	5.123
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	628	724	696	703	630	699
Service Time	3.431	2.704	3.175	3.133	3.421	2.876
HCM Lane V/C Ratio	0.025	0.343	0.049	0.172	0.084	0.292
HCM Control Delay	8.6	10.3	8.4	9.2	8.9	10
HCM Lane LOS	A	B	A	A	A	A
HCM 95th-tile Q	0.1	1.5	0.2	0.6	0.3	1.2

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	8	13	15	0	54	21	59	0	15	192	79	0	66	199	12
Future Vol, veh/h	0	8	13	15	0	54	21	59	0	15	192	79	0	66	199	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	9	14	16	0	59	23	64	0	16	209	86	0	72	216	13
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	8.9	9.8	11.5	10.4
HCM LOS	A	A	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	22%	40%	100%	0%
Vol Thru, %	0%	71%	36%	16%	0%	94%
Vol Right, %	0%	29%	42%	44%	0%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	271	36	134	66	211
LT Vol	15	0	8	54	66	0
Through Vol	0	192	13	21	0	199
RT Vol	0	79	15	59	0	12
Lane Flow Rate	16	295	39	146	72	229
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.026	0.419	0.06	0.213	0.116	0.336
Departure Headway (Hd)	5.83	5.121	5.533	5.257	5.818	5.274
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	609	698	651	676	611	677
Service Time	3.611	2.9	3.533	3.342	3.6	3.055
HCM Lane V/C Ratio	0.026	0.423	0.06	0.216	0.118	0.338
HCM Control Delay	8.8	11.6	8.9	9.8	9.4	10.7
HCM Lane LOS	A	B	A	A	A	B
HCM 95th-tile Q	0.1	2.1	0.2	0.8	0.4	1.5

Intersection	
Intersection Delay, s/veh	13.2
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	9	15	22	0	73	30	62	0	22	232	107	0	73	263	16
Future Vol, veh/h	0	9	15	22	0	73	30	62	0	22	232	107	0	73	263	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	10	16	24	0	79	33	67	0	24	252	116	0	79	286	17
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	9.7	11.3	14.8	12.8
HCM LOS	A	B	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	20%	44%	100%	0%
Vol Thru, %	0%	68%	33%	18%	0%	94%
Vol Right, %	0%	32%	48%	38%	0%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	339	46	165	73	279
LT Vol	22	0	9	73	73	0
Through Vol	0	232	15	30	0	263
RT Vol	0	107	22	62	0	16
Lane Flow Rate	24	368	50	179	79	303
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.041	0.564	0.084	0.292	0.137	0.478
Departure Headway (Hd)	6.237	5.507	6.075	5.858	6.227	5.68
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	574	656	588	613	576	634
Service Time	3.972	3.241	4.133	3.902	3.962	3.415
HCM Lane V/C Ratio	0.042	0.561	0.085	0.292	0.137	0.478
HCM Control Delay	9.2	15.2	9.7	11.3	10	13.5
HCM Lane LOS	A	C	A	B	A	B
HCM 95th-tile Q	0.1	3.5	0.3	1.2	0.5	2.6

Intersection	
Intersection Delay, s/veh	15.4
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	11	18	22	0	78	31	79	0	22	268	114	0	90	285	17
Future Vol, veh/h	0	11	18	22	0	78	31	79	0	22	268	114	0	90	285	17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	20	24	0	85	34	86	0	24	291	124	0	98	310	18
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	10.3	12.4	18.6	14.3
HCM LOS	B	B	C	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	22%	41%	100%	0%
Vol Thru, %	0%	70%	35%	16%	0%	94%
Vol Right, %	0%	30%	43%	42%	0%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	382	51	188	90	302
LT Vol	22	0	11	78	90	0
Through Vol	0	268	18	31	0	285
RT Vol	0	114	22	79	0	17
Lane Flow Rate	24	415	55	204	98	328
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.043	0.662	0.1	0.346	0.175	0.539
Departure Headway (Hd)	6.461	5.742	6.48	6.101	6.458	5.911
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	553	627	549	586	555	607
Service Time	4.214	3.494	4.568	4.166	4.212	3.664
HCM Lane V/C Ratio	0.043	0.662	0.1	0.348	0.177	0.54
HCM Control Delay	9.5	19.1	10.3	12.4	10.6	15.4
HCM Lane LOS	A	C	B	B	B	C
HCM 95th-tile Q	0.1	4.9	0.3	1.5	0.6	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	18	22	78	31	79	22	268	114	90	285	17
Future Volume (veh/h)	11	18	22	78	31	79	22	268	114	90	285	17
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1750	1863	1750	1750	1863	1750	1716	1863	1750	1716	1863	1750
Adj Flow Rate, veh/h	12	20	24	85	34	86	24	291	124	98	310	18
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	83	124	119	148	56	106	734	912	389	663	1282	74
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.74	0.74	0.74	0.74	0.74	0.74
Sat Flow, veh/h	211	756	725	556	338	647	964	1239	528	890	1743	101
Grp Volume(v), veh/h	56	0	0	205	0	0	24	0	415	98	0	328
Grp Sat Flow(s),veh/h/ln	1693	0	0	1541	0	0	964	0	1767	890	0	1844
Q Serve(g_s), s	0.0	0.0	0.0	8.9	0.0	0.0	0.7	0.0	7.3	3.8	0.0	5.1
Cycle Q Clear(g_c), s	2.5	0.0	0.0	11.4	0.0	0.0	5.9	0.0	7.3	11.1	0.0	5.1
Prop In Lane	0.21		0.43	0.41		0.42	1.00		0.30	1.00		0.05
Lane Grp Cap(c), veh/h	327	0	0	310	0	0	734	0	1300	663	0	1357
V/C Ratio(X)	0.17	0.00	0.00	0.66	0.00	0.00	0.03	0.00	0.32	0.15	0.00	0.24
Avail Cap(c_a), veh/h	799	0	0	761	0	0	734	0	1300	663	0	1357
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.54	0.00	0.00	0.90	0.00	0.90	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.5	0.0	0.0	36.0	0.0	0.0	4.8	0.0	4.1	6.0	0.0	3.8
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.3	0.0	0.0	0.1	0.0	0.6	0.5	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	5.0	0.0	0.0	0.2	0.0	3.7	1.0	0.0	2.7
LnGrp Delay(d),s/veh	32.7	0.0	0.0	37.4	0.0	0.0	4.8	0.0	4.7	6.5	0.0	4.2
LnGrp LOS	C			D			A		A	A		A
Approach Vol, veh/h		56			205			439			426	
Approach Delay, s/veh		32.7			37.4			4.7			4.8	
Approach LOS		C			D			A			A	

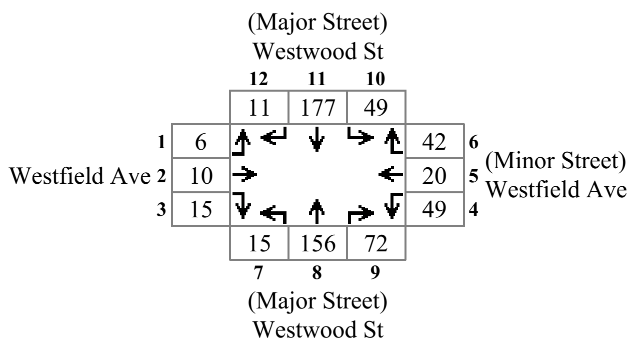
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		70.7		19.3		70.7		19.3
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		39.1		41.9		39.1		41.9
Max Q Clear Time (g_c+I1), s		9.3		4.5		13.1		13.4
Green Ext Time (p_c), s		3.7		1.0		3.6		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	12.1
HCM 2010 LOS	B

Rural Peak Hour Signal Warrant
Intersection Does Not Meet Signal Warrant

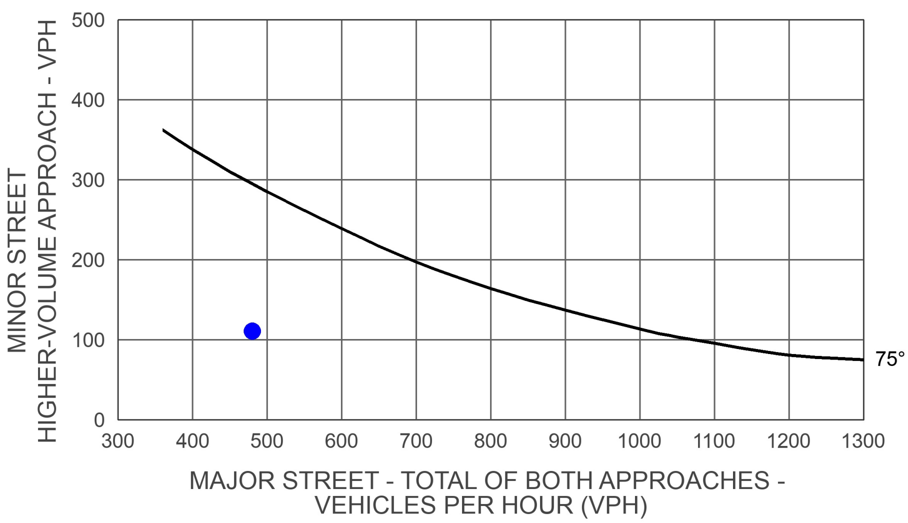
Scenario: PM Existing

Intersection #: 1



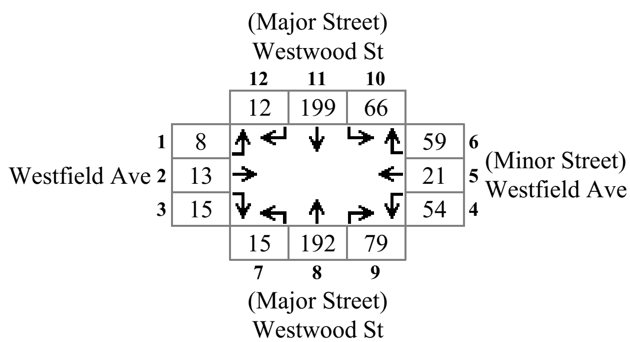
Major Total: 480

Minor High Volume: 111

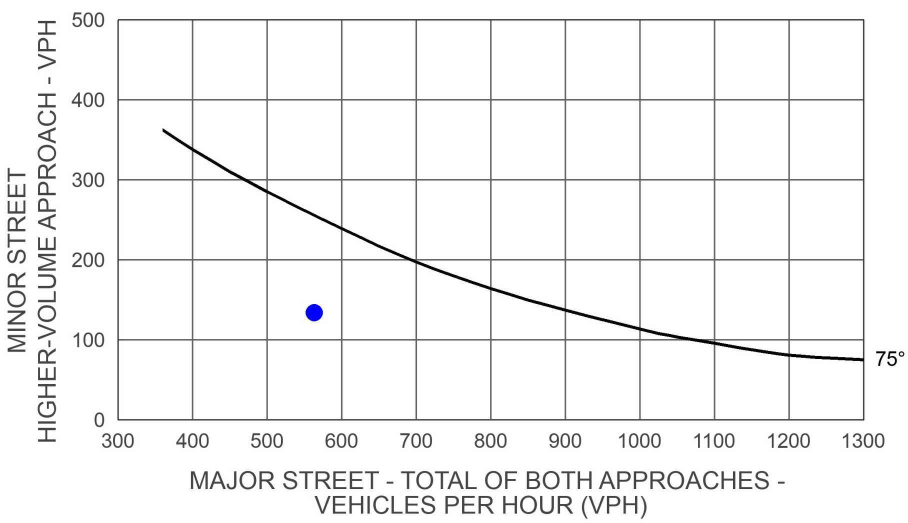


Rural Peak Hour Signal Warrant
Intersection Does Not Meet Signal Warrant

Scenario: PM Existing+Project
Intersection #: 1

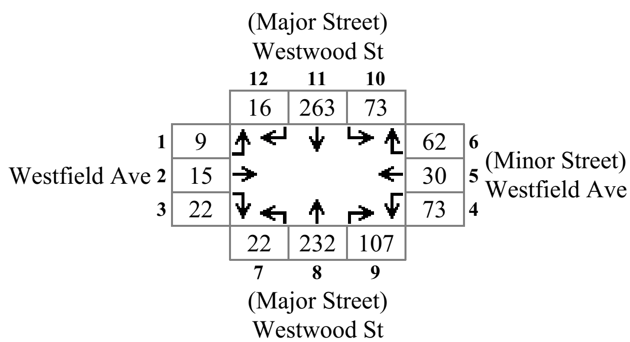


Major Total: 563
Minor High Volume: 134

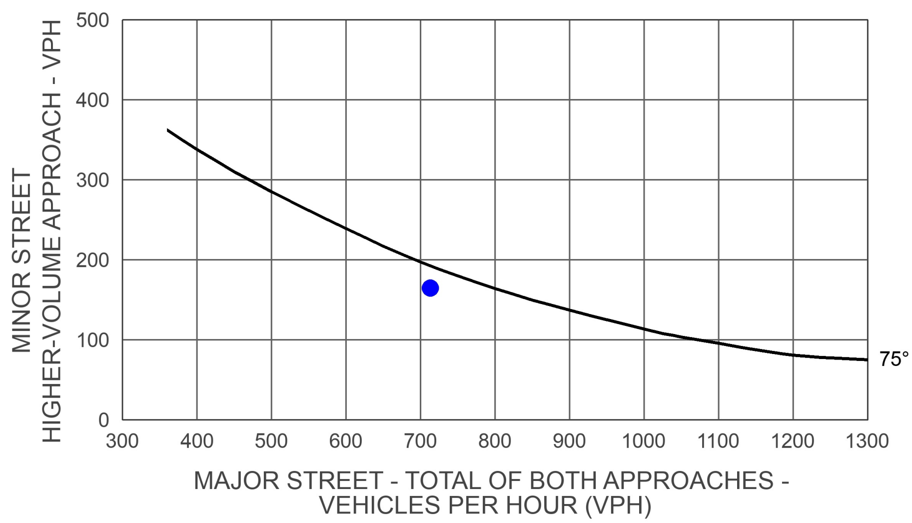


Rural Peak Hour Signal Warrant
Intersection Does Not Meet Signal Warrant

Scenario: PM Future
Intersection #: 1

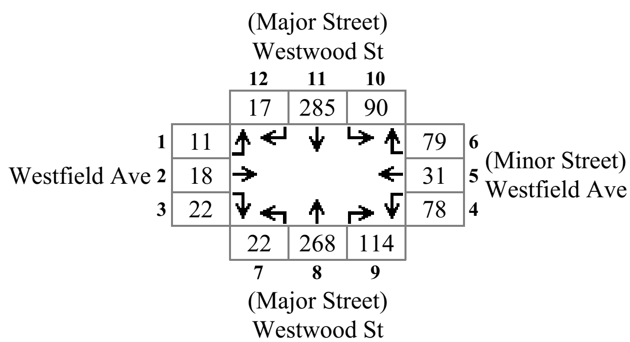


Major Total: 713
Minor High Volume: 165

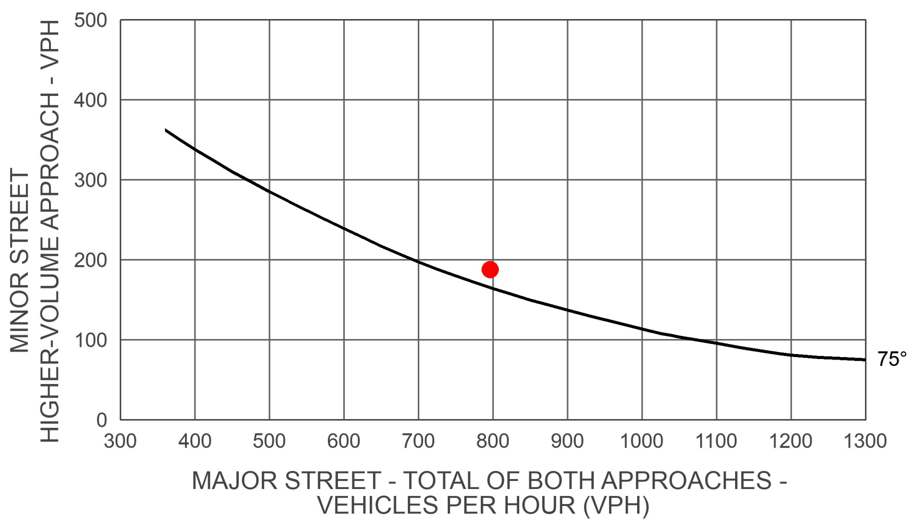


Rural Peak Hour Signal Warrant
Intersection Meets Signal Warrant

Scenario: PM Future+Project
Intersection #: 1



Major Total: 796
Minor High Volume: 188



Intersection	
Intersection Delay, s/veh	13.8
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	27	81	79	0	70	111	61	0	69	178	69	0	58	167	58
Future Vol, veh/h	0	27	81	79	0	70	111	61	0	69	178	69	0	58	167	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	29	88	86	0	76	121	66	0	75	193	75	0	63	182	63
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	12.7	14.4	14.1	13.6
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	14%	29%	100%	0%
Vol Thru, %	0%	72%	43%	46%	0%	74%
Vol Right, %	0%	28%	42%	25%	0%	26%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	69	247	187	242	58	225
LT Vol	69	0	27	70	58	0
Through Vol	0	178	81	111	0	167
RT Vol	0	69	79	61	0	58
Lane Flow Rate	75	268	203	263	63	245
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.148	0.478	0.353	0.455	0.126	0.441
Departure Headway (Hd)	7.124	6.413	6.256	6.231	7.182	6.487
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	504	561	575	579	500	555
Service Time	4.86	4.149	4.296	4.268	4.919	4.223
HCM Lane V/C Ratio	0.149	0.478	0.353	0.454	0.126	0.441
HCM Control Delay	11.1	14.9	12.7	14.4	11	14.3
HCM Lane LOS	B	B	B	B	B	B
HCM 95th-tile Q	0.5	2.6	1.6	2.4	0.4	2.2

Intersection	
Intersection Delay, s/veh	15.6
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	28	82	79	0	78	113	73	0	69	189	71	0	70	201	60
Future Vol, veh/h	0	28	82	79	0	78	113	73	0	69	189	71	0	70	201	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	30	89	86	0	85	123	79	0	75	205	77	0	76	218	65
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	13.7	16.4	15.7	15.8
HCM LOS	B	C	C	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	15%	30%	100%	0%
Vol Thru, %	0%	73%	43%	43%	0%	77%
Vol Right, %	0%	27%	42%	28%	0%	23%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	69	260	189	264	70	261
LT Vol	69	0	28	78	70	0
Through Vol	0	189	82	113	0	201
RT Vol	0	71	79	73	0	60
Lane Flow Rate	75	283	205	287	76	284
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.155	0.527	0.378	0.519	0.157	0.531
Departure Headway (Hd)	7.418	6.71	6.626	6.505	7.412	6.734
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	483	537	540	554	483	533
Service Time	5.176	4.467	4.689	4.562	5.169	4.491
HCM Lane V/C Ratio	0.155	0.527	0.38	0.518	0.157	0.533
HCM Control Delay	11.5	16.8	13.7	16.4	11.6	16.9
HCM Lane LOS	B	C	B	C	B	C
HCM 95th-tile Q	0.5	3	1.7	3	0.6	3.1

Intersection	
Intersection Delay, s/veh	55
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	40	120	117	0	104	165	91	0	103	264	103	0	86	248	86
Future Vol, veh/h	0	40	120	117	0	104	165	91	0	103	264	103	0	86	248	86
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	43	130	127	0	113	179	99	0	112	287	112	0	93	270	93
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	37.1	65.8	62.9	48.7
HCM LOS	E	F	F	E

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	14%	29%	100%	0%
Vol Thru, %	0%	72%	43%	46%	0%	74%
Vol Right, %	0%	28%	42%	25%	0%	26%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	103	367	277	360	86	334
LT Vol	103	0	40	104	86	0
Through Vol	0	264	120	165	0	248
RT Vol	0	103	117	91	0	86
Lane Flow Rate	112	399	301	391	93	363
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.306	1	0.772	0.963	0.254	0.918
Departure Headway (Hd)	9.846	9.116	9.227	8.861	9.788	9.103
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	368	403	397	415	371	403
Service Time	7.531	6.801	7.159	6.806	7.433	6.748
HCM Lane V/C Ratio	0.304	0.99	0.758	0.942	0.251	0.901
HCM Control Delay	16.8	75.8	37.1	65.8	15.7	57.2
HCM Lane LOS	C	F	E	F	C	F
HCM 95th-tile Q	1.3	12.2	6.4	11.2	1	9.8

Intersection	
Intersection Delay, s/veh	62.1
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	41	121	117	0	112	167	103	0	103	275	105	0	98	282	88
Future Vol, veh/h	0	41	121	117	0	112	167	103	0	103	275	105	0	98	282	88
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	45	132	127	0	122	182	112	0	112	299	114	0	107	307	96
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	39.4	75.5	63.2	63.4
HCM LOS	E	F	F	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	15%	29%	100%	0%
Vol Thru, %	0%	72%	43%	44%	0%	76%
Vol Right, %	0%	28%	42%	27%	0%	24%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	103	380	279	382	98	370
LT Vol	103	0	41	112	98	0
Through Vol	0	275	121	167	0	282
RT Vol	0	105	117	103	0	88
Lane Flow Rate	112	413	303	415	107	402
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.304	1	0.786	1	0.29	1
Departure Headway (Hd)	9.766	9.038	9.332	8.868	9.796	9.096
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	369	401	388	407	370	402
Service Time	7.492	6.799	7.401	6.965	7.492	6.826
HCM Lane V/C Ratio	0.304	1.03	0.781	1.02	0.289	1
HCM Control Delay	16.7	75.8	39.4	75.5	16.4	75.9
HCM Lane LOS	C	F	E	F	C	F
HCM 95th-tile Q	1.3	12.2	6.7	12.3	1.2	12.2

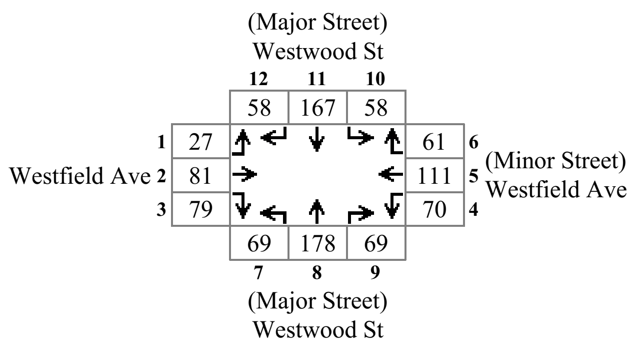
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	121	117	112	167	103	103	275	105	98	282	88
Future Volume (veh/h)	41	121	117	112	167	103	103	275	105	98	282	88
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1750	1863	1750	1750	1863	1750	1716	1863	1750	1716	1863	1750
Adj Flow Rate, veh/h	45	132	127	122	182	112	112	299	114	107	307	96
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	252	216	172	225	127	485	737	281	477	781	244
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	151	774	664	370	692	391	900	1284	490	892	1360	425
Grp Volume(v), veh/h	304	0	0	416	0	0	112	0	413	107	0	403
Grp Sat Flow(s),veh/h/ln	1590	0	0	1453	0	0	900	0	1774	892	0	1785
Q Serve(g_s), s	0.0	0.0	0.0	11.0	0.0	0.0	7.0	0.0	11.6	6.8	0.0	11.2
Cycle Q Clear(g_c), s	13.6	0.0	0.0	24.5	0.0	0.0	18.2	0.0	11.6	18.4	0.0	11.2
Prop In Lane	0.15		0.42	0.29		0.27	1.00		0.28	1.00		0.24
Lane Grp Cap(c), veh/h	564	0	0	525	0	0	485	0	1019	477	0	1025
V/C Ratio(X)	0.54	0.00	0.00	0.79	0.00	0.00	0.23	0.00	0.41	0.22	0.00	0.39
Avail Cap(c_a), veh/h	812	0	0	760	0	0	485	0	1019	477	0	1025
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.75	0.00	0.00	0.79	0.00	0.79	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.9	0.0	0.0	28.7	0.0	0.0	15.5	0.0	10.6	15.8	0.0	10.5
Incr Delay (d2), s/veh	0.8	0.0	0.0	2.8	0.0	0.0	0.9	0.0	1.0	1.1	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	0.0	0.0	10.1	0.0	0.0	1.9	0.0	5.9	1.8	0.0	5.8
LnGrp Delay(d),s/veh	25.7	0.0	0.0	31.4	0.0	0.0	16.4	0.0	11.6	16.8	0.0	11.7
LnGrp LOS	C			C			B		B	B		B
Approach Vol, veh/h		304			416			525			510	
Approach Delay, s/veh		25.7			31.4			12.6			12.8	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		56.2		33.8		56.2		33.8
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		37.5		43.5		37.5		43.5
Max Q Clear Time (g_c+I1), s		20.2		15.6		20.4		26.5
Green Ext Time (p_c), s		4.3		3.1		4.3		2.8

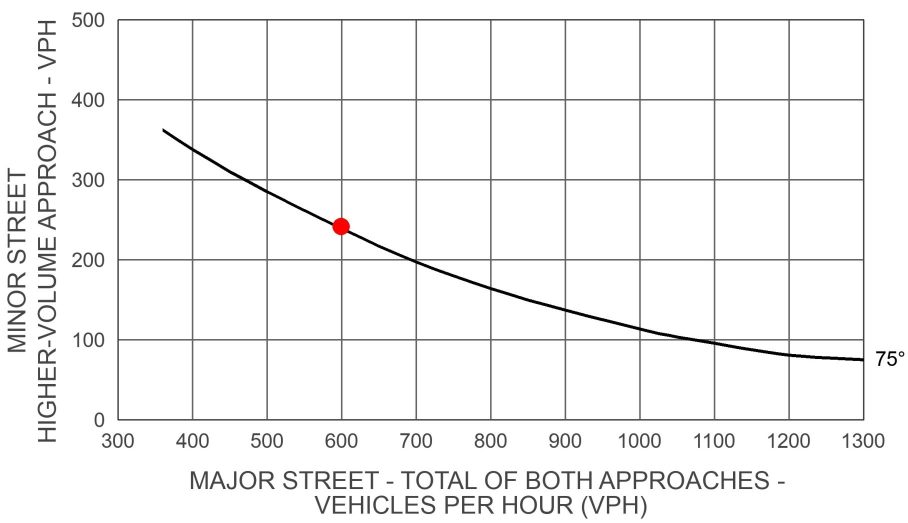
Intersection Summary	
HCM 2010 Ctrl Delay	19.4
HCM 2010 LOS	B

Rural Peak Hour Signal Warrant
Intersection Meets Signal Warrant

Scenario: AM Existing
Intersection #: 1

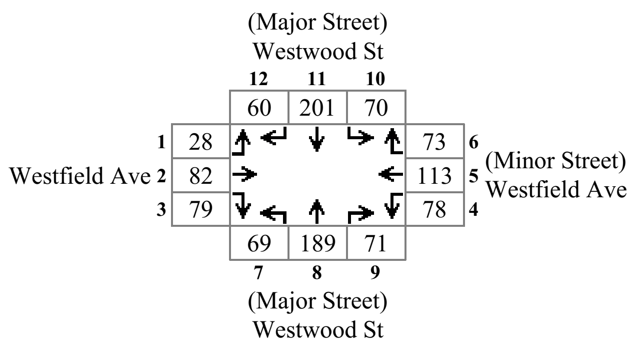


Major Total: 599
Minor High Volume: 242

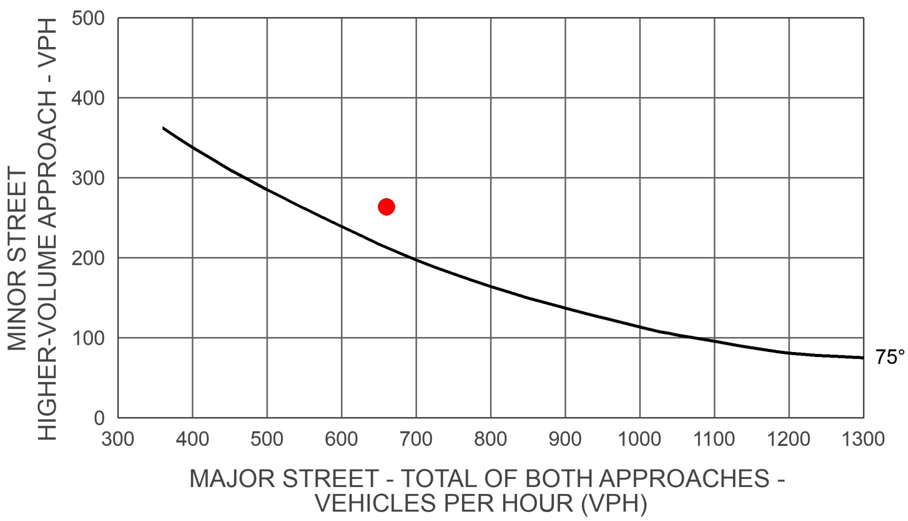


Rural Peak Hour Signal Warrant
Intersection Meets Signal Warrant

Scenario: AM Existing+Project
Intersection #: 1

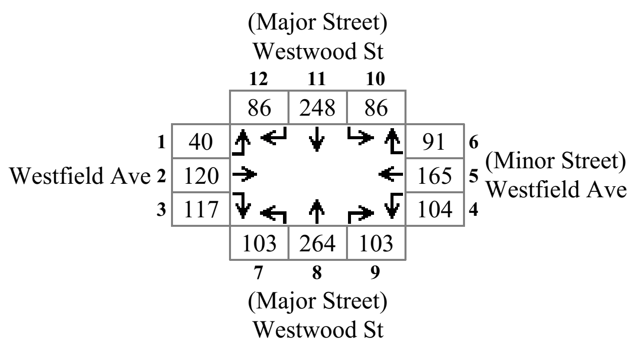


Major Total: 660
Minor High Volume: 264

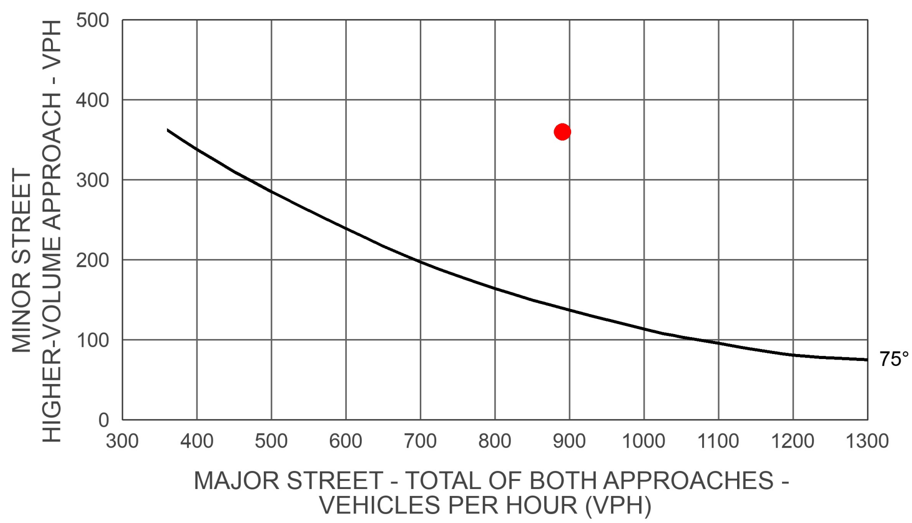


Rural Peak Hour Signal Warrant
Intersection Meets Signal Warrant

Scenario: AM Future
Intersection #: 1

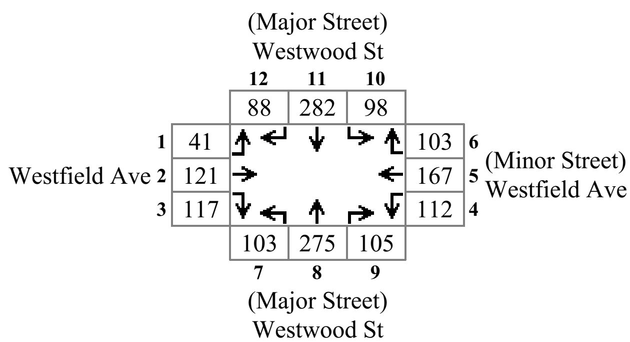


Major Total: 890
Minor High Volume: 360

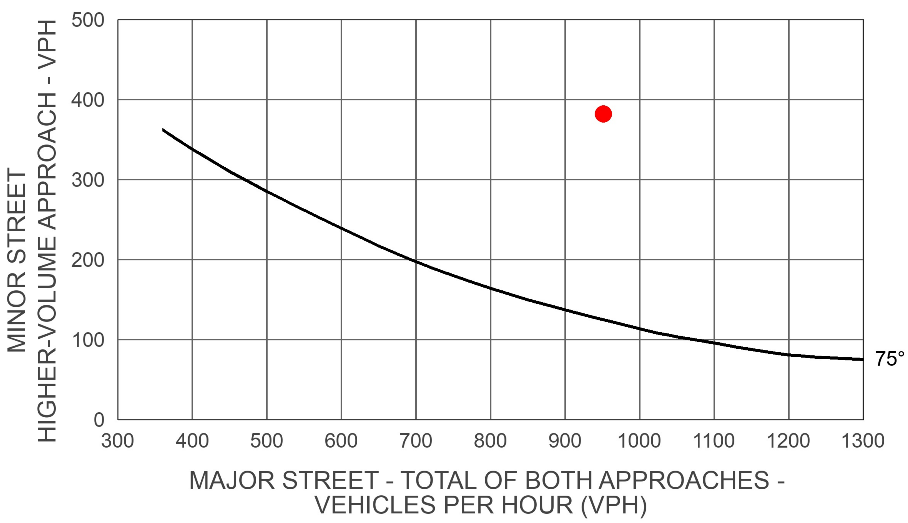


Rural Peak Hour Signal Warrant
Intersection Meets Signal Warrant

Scenario: AM Future+Project
Intersection #: 1



Major Total: 951
Minor High Volume: 382



Intersection 2
Lombardi St & Westfield Ave

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	44	113	116	69	50	35
Future Vol, veh/h	44	113	116	69	50	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	123	126	75	54	38

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	201	0	-	0	382	164
Stage 1	-	-	-	-	164	-
Stage 2	-	-	-	-	218	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1371	-	-	-	620	881
Stage 1	-	-	-	-	865	-
Stage 2	-	-	-	-	818	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1371	-	-	-	596	881
Mov Cap-2 Maneuver	-	-	-	-	596	-
Stage 1	-	-	-	-	865	-
Stage 2	-	-	-	-	787	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1371	-	-	-	688
HCM Lane V/C Ratio	0.035	-	-	-	0.134
HCM Control Delay (s)	7.7	0	-	-	11
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	52	142	167	115	77	40
Future Vol, veh/h	52	142	167	115	77	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	57	154	182	125	84	43

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	307	0	-	0	511	244
Stage 1	-	-	-	-	244	-
Stage 2	-	-	-	-	267	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1254	-	-	-	523	795
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	778	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1254	-	-	-	497	795
Mov Cap-2 Maneuver	-	-	-	-	497	-
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	739	-

Approach	EB	WB	SB
HCM Control Delay, s	2.1	0	13.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1254	-	-	-	570
HCM Lane V/C Ratio	0.045	-	-	-	0.223
HCM Control Delay (s)	8	0	-	-	13.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	65	168	172	103	92	64
Future Vol, veh/h	65	168	172	103	92	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	183	187	112	100	70

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	299	0	-	0	567	243
Stage 1	-	-	-	-	243	-
Stage 2	-	-	-	-	324	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1262	-	-	-	485	796
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	733	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1262	-	-	-	454	796
Mov Cap-2 Maneuver	-	-	-	-	454	-
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	687	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	14.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1262	-	-	-	551
HCM Lane V/C Ratio	0.056	-	-	-	0.308
HCM Control Delay (s)	8	0	-	-	14.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1.3

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	73	197	223	149	119	69
Future Vol, veh/h	73	197	223	149	119	69
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	79	214	242	162	129	75

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	404	0	-	0	696	323
Stage 1	-	-	-	-	323	-
Stage 2	-	-	-	-	373	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1155	-	-	-	408	718
Stage 1	-	-	-	-	734	-
Stage 2	-	-	-	-	696	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1155	-	-	-	376	718
Mov Cap-2 Maneuver	-	-	-	-	376	-
Stage 1	-	-	-	-	734	-
Stage 2	-	-	-	-	642	-

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	19.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1155	-	-	-	456
HCM Lane V/C Ratio	0.069	-	-	-	0.448
HCM Control Delay (s)	8.3	0	-	-	19.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	73	197	223	149	119	69
Future Volume (veh/h)	73	197	223	149	119	69
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1750	1863	1863	1750	1716	1750
Adj Flow Rate, veh/h	79	214	242	162	129	75
Adj No. of Lanes	0	1	1	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	0	0
Cap, veh/h	113	279	329	220	576	335
Arrive On Green	0.63	0.63	0.63	0.63	0.58	0.58
Sat Flow, veh/h	197	884	1042	698	985	573
Grp Volume(v), veh/h	293	0	0	404	205	0
Grp Sat Flow(s),veh/h/ln	1080	0	0	1740	1565	0
Q Serve(g_s), s	9.1	0.0	0.0	14.4	5.6	0.0
Cycle Q Clear(g_c), s	23.7	0.0	0.0	14.4	5.6	0.0
Prop In Lane	0.27			0.40	0.63	0.37
Lane Grp Cap(c), veh/h	392	0	0	549	915	0
V/C Ratio(X)	0.75	0.00	0.00	0.74	0.22	0.00
Avail Cap(c_a), veh/h	616	0	0	810	915	0
HCM Platoon Ratio	2.00	2.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.99	0.00	0.00	0.61	1.00	0.00
Uniform Delay (d), s/veh	16.0	0.0	0.0	14.0	8.9	0.0
Incr Delay (d2), s/veh	2.9	0.0	0.0	1.2	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	0.0	0.0	6.9	2.6	0.0
LnGrp Delay(d),s/veh	18.9	0.0	0.0	15.2	9.5	0.0
LnGrp LOS	B			B	A	
Approach Vol, veh/h		293	404		205	
Approach Delay, s/veh		18.9	15.2		9.5	
Approach LOS		B	B		A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				32.8		57.2		32.8
Change Period (Y+Rc), s				4.5		4.5		4.5
Max Green Setting (Gmax), s				41.9		39.1		41.9
Max Q Clear Time (g_c+I1), s				25.7		7.6		16.4
Green Ext Time (p_c), s				2.5		0.7		2.8

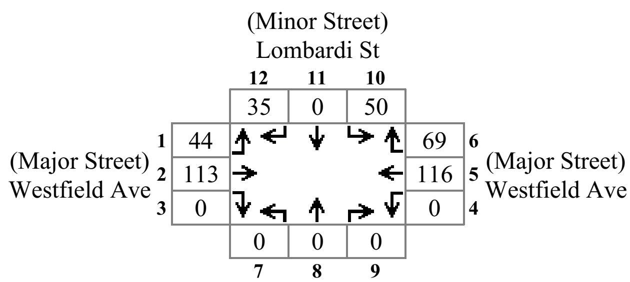
Intersection Summary	
HCM 2010 Ctrl Delay	15.1
HCM 2010 LOS	B

Notes

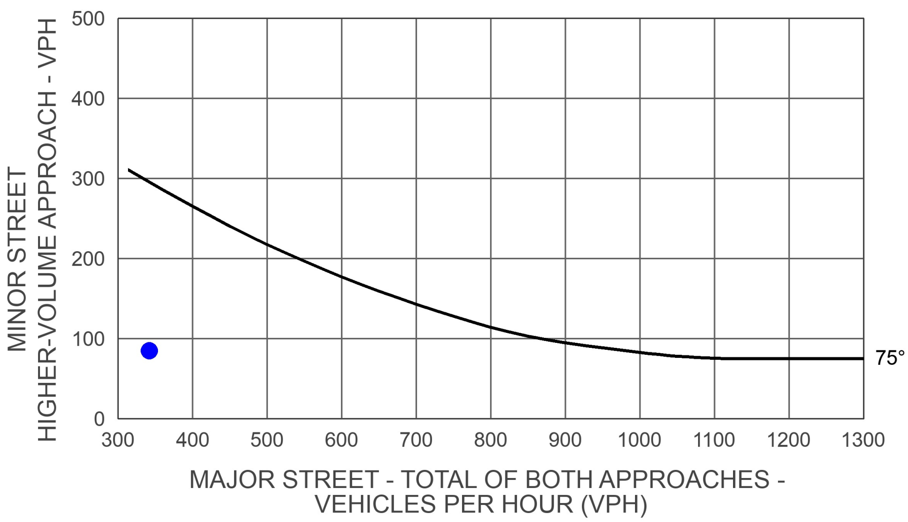
User approved volume balancing among the lanes for turning movement.

Rural Peak Hour Signal Warrant
Intersection Does Not Meet Signal Warrant

Scenario: PM Existing
Intersection #: 2

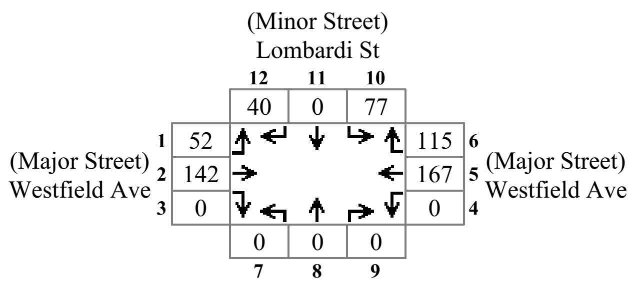


Major Total: 342
Minor High Volume: 85

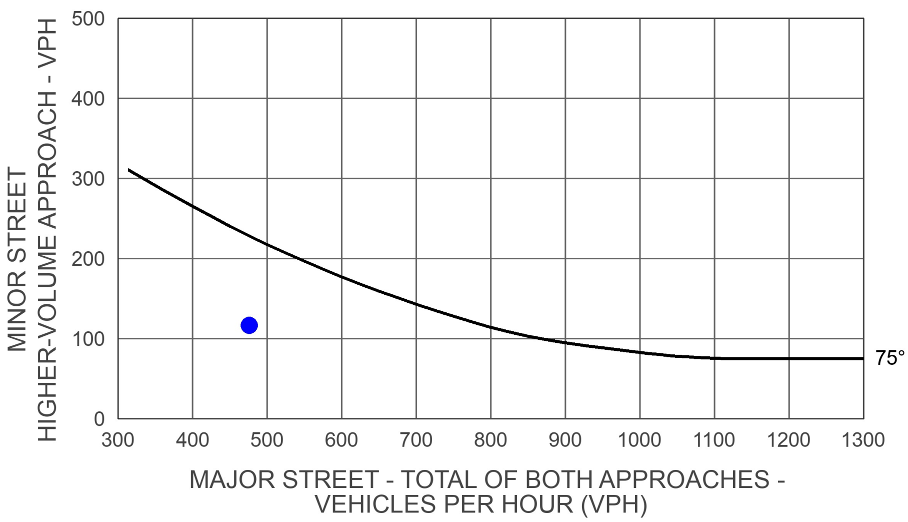


Rural Peak Hour Signal Warrant
Intersection Does Not Meet Signal Warrant

Scenario: PM Existing+Project
Intersection #: 2

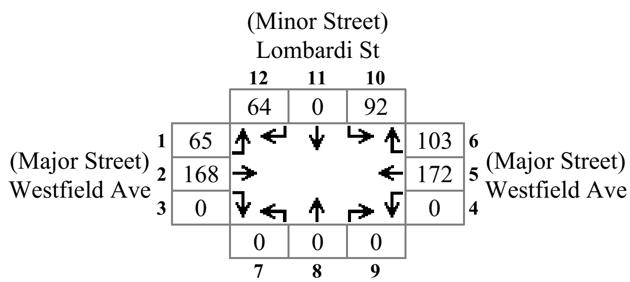


Major Total: 476
Minor High Volume: 117

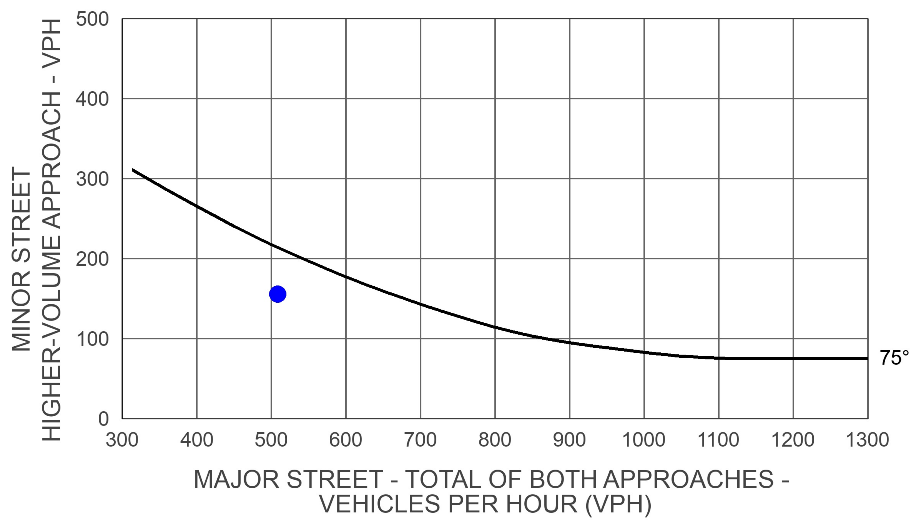


Rural Peak Hour Signal Warrant
Intersection Does Not Meet Signal Warrant

Scenario: PM Future
Intersection #: 2



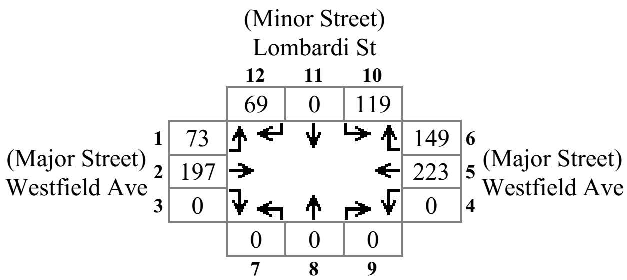
Major Total: 508
Minor High Volume: 156



Rural Peak Hour Signal Warrant
Intersection Meets Signal Warrant

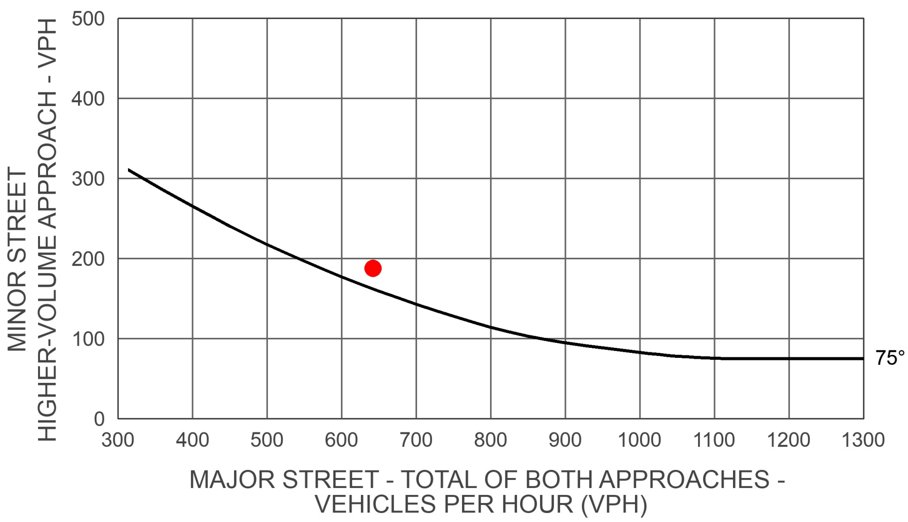
Scenario: PM Future+Project

Intersection #: 2



Major Total: 642

Minor High Volume: 188



Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	72	182	190	107	50	62
Future Vol, veh/h	72	182	190	107	50	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	78	198	207	116	54	67

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	323	0	-	0	619	265
Stage 1	-	-	-	-	265	-
Stage 2	-	-	-	-	354	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1237	-	-	-	452	774
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	710	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1237	-	-	-	420	774
Mov Cap-2 Maneuver	-	-	-	-	420	-
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	660	-

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1237	-	-	-	562
HCM Lane V/C Ratio	0.063	-	-	-	0.217
HCM Control Delay (s)	8.1	0	-	-	13.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.8

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	74	226	205	121	91	70
Future Vol, veh/h	74	226	205	121	91	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	80	246	223	132	99	76

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	354	0	-	0	696	289
Stage 1	-	-	-	-	289	-
Stage 2	-	-	-	-	407	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1205	-	-	-	408	750
Stage 1	-	-	-	-	760	-
Stage 2	-	-	-	-	672	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1205	-	-	-	377	750
Mov Cap-2 Maneuver	-	-	-	-	377	-
Stage 1	-	-	-	-	760	-
Stage 2	-	-	-	-	620	-

Approach	EB	WB	SB
HCM Control Delay, s	2	0	16.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1205	-	-	-	481
HCM Lane V/C Ratio	0.067	-	-	-	0.364
HCM Control Delay (s)	8.2	0	-	-	16.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	1.6

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	107	270	282	159	92	114
Future Vol, veh/h	107	270	282	159	92	114
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	116	293	307	173	100	124

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	479	0	-	0	919	393
Stage 1	-	-	-	-	393	-
Stage 2	-	-	-	-	526	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1083	-	-	-	301	656
Stage 1	-	-	-	-	682	-
Stage 2	-	-	-	-	593	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1083	-	-	-	262	656
Mov Cap-2 Maneuver	-	-	-	-	262	-
Stage 1	-	-	-	-	682	-
Stage 2	-	-	-	-	517	-

Approach	EB	WB	SB
HCM Control Delay, s	2.5	0	25.7
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1083	-	-	-	392
HCM Lane V/C Ratio	0.107	-	-	-	0.571
HCM Control Delay (s)	8.7	0	-	-	25.7
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.4	-	-	-	3.4

Intersection	
Int Delay, s/veh	12.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	109	314	297	173	133	122
Future Vol, veh/h	109	314	297	173	133	122
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	118	341	323	188	145	133

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	511	0	-	0	995	417
Stage 1	-	-	-	-	417	-
Stage 2	-	-	-	-	578	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1054	-	-	-	271	636
Stage 1	-	-	-	-	665	-
Stage 2	-	-	-	-	561	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1054	-	-	-	234	636
Mov Cap-2 Maneuver	-	-	-	-	234	-
Stage 1	-	-	-	-	665	-
Stage 2	-	-	-	-	484	-

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	51.1
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1054	-	-	-	335
HCM Lane V/C Ratio	0.112	-	-	-	0.827
HCM Control Delay (s)	8.8	0	-	-	51.1
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.4	-	-	-	7.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	109	314	297	173	133	122
Future Volume (veh/h)	109	314	297	173	133	122
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1750	1863	1863	1750	1716	1750
Adj Flow Rate, veh/h	118	341	323	188	145	133
Adj No. of Lanes	0	1	1	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	0	0
Cap, veh/h	135	322	386	224	443	406
Arrive On Green	0.70	0.70	0.70	0.70	0.55	0.55
Sat Flow, veh/h	243	925	1106	644	803	737
Grp Volume(v), veh/h	459	0	0	511	279	0
Grp Sat Flow(s),veh/h/ln	1168	0	0	1749	1546	0
Q Serve(g_s), s	20.5	0.0	0.0	19.1	8.9	0.0
Cycle Q Clear(g_c), s	31.4	0.0	0.0	19.1	8.9	0.0
Prop In Lane	0.26			0.37	0.52	0.48
Lane Grp Cap(c), veh/h	458	0	0	610	852	0
V/C Ratio(X)	1.00	0.00	0.00	0.84	0.33	0.00
Avail Cap(c_a), veh/h	798	0	0	1020	852	0
HCM Platoon Ratio	2.00	2.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.88	0.00	0.00	0.85	1.00	0.00
Uniform Delay (d), s/veh	16.9	0.0	0.0	11.8	11.1	0.0
Incr Delay (d2), s/veh	23.6	0.0	0.0	2.7	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.2	0.0	0.0	9.2	4.0	0.0
LnGrp Delay(d),s/veh	40.6	0.0	0.0	14.5	12.1	0.0
LnGrp LOS	F			B	B	
Approach Vol, veh/h		459	511		279	
Approach Delay, s/veh		40.6	14.5		12.1	
Approach LOS		D	B		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				38.9		51.1		38.9
Change Period (Y+Rc), s				4.5		4.5		4.5
Max Green Setting (Gmax), s				52.5		28.5		52.5
Max Q Clear Time (g_c+I1), s				33.4		10.9		21.1
Green Ext Time (p_c), s				4.1		0.9		4.5

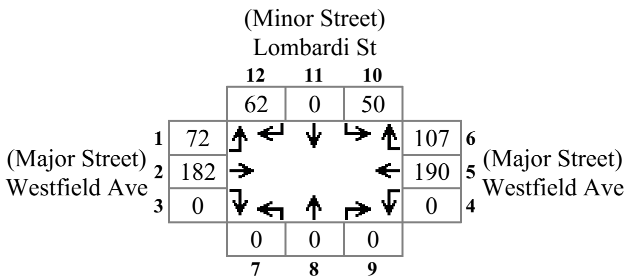
Intersection Summary	
HCM 2010 Ctrl Delay	23.5
HCM 2010 LOS	C

Notes

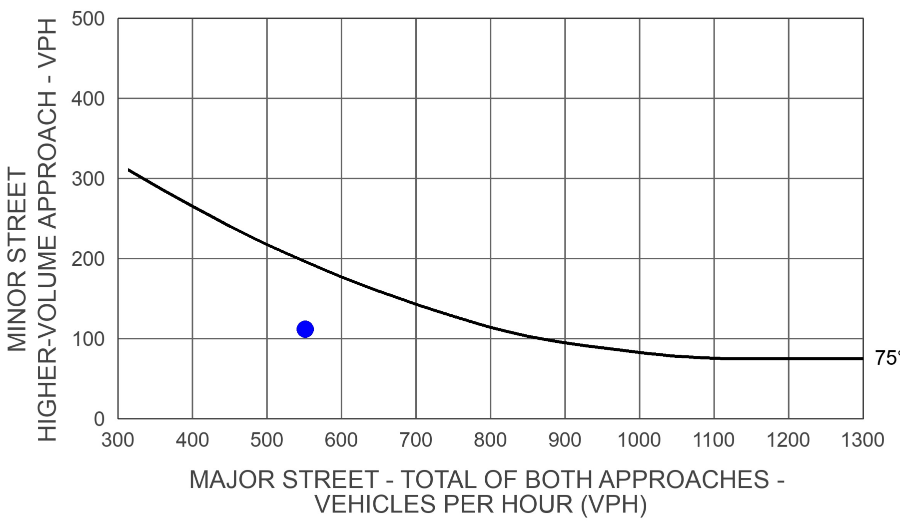
User approved volume balancing among the lanes for turning movement.

Rural Peak Hour Signal Warrant
Intersection Does Not Meet Signal Warrant

Scenario: AM Existing
Intersection #: 2

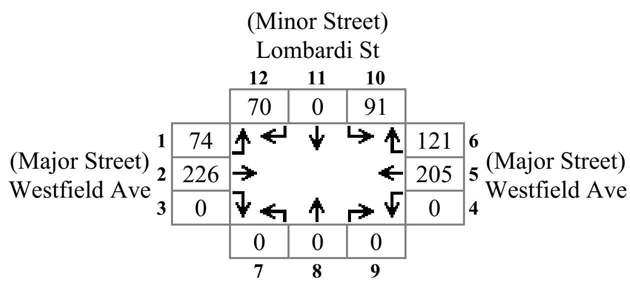


Major Total: 551
Minor High Volume: 112

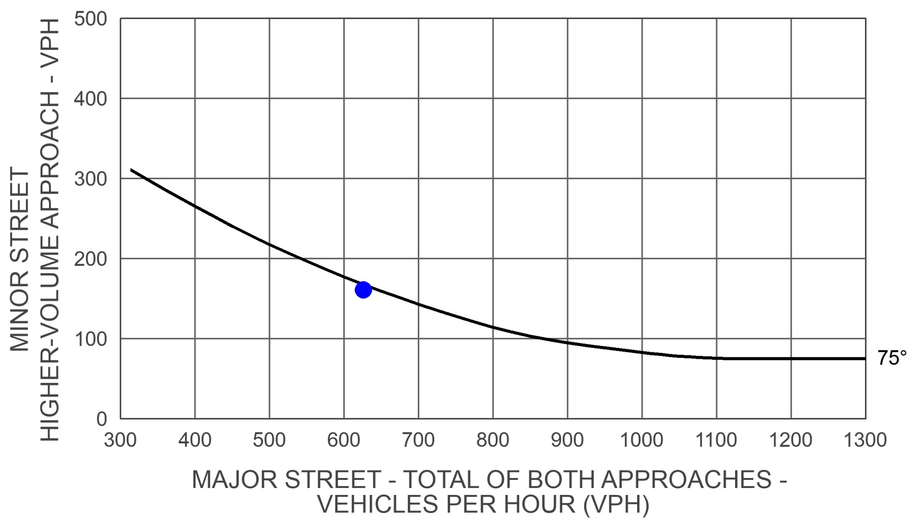


Rural Peak Hour Signal Warrant
Intersection Does Not Meet Signal Warrant

Scenario: AM Existing+Project
Intersection #: 2



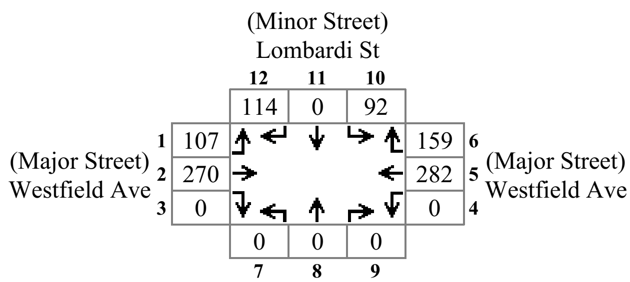
Major Total: 626
Minor High Volume: 161



Rural Peak Hour Signal Warrant
Intersection Meets Signal Warrant

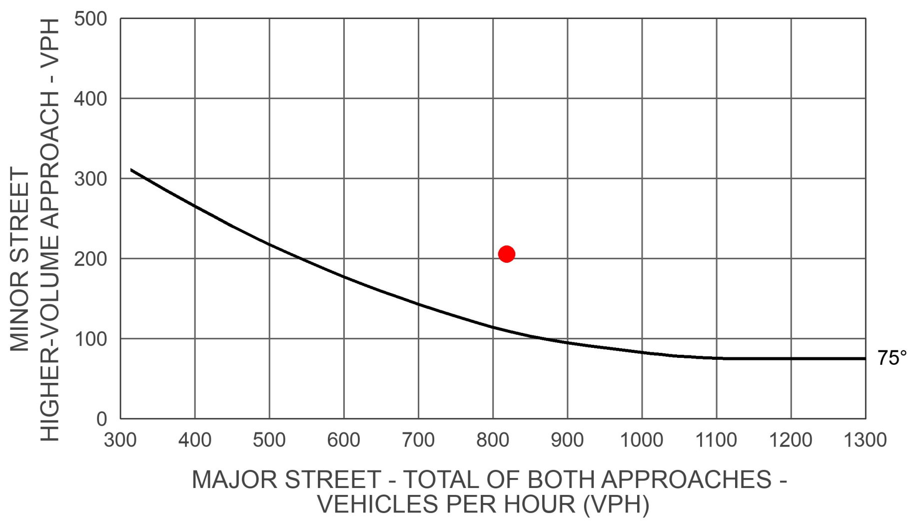
Scenario: AM Future

Intersection #: 2



Major Total: 818

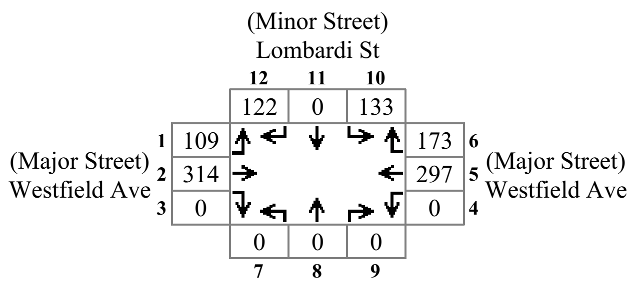
Minor High Volume: 206



Rural Peak Hour Signal Warrant
Intersection Meets Signal Warrant

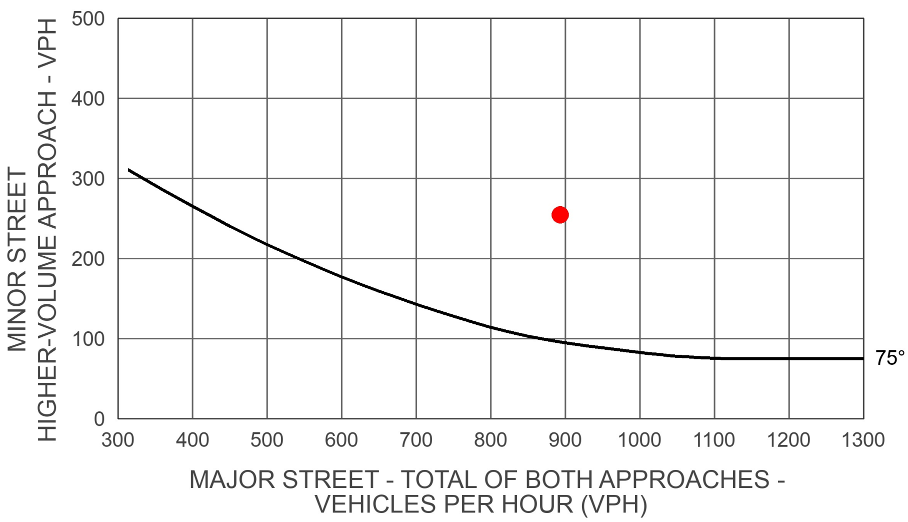
Scenario: AM Future+Project

Intersection #: 2



Major Total: 893

Minor High Volume: 255



Intersection 3
Matthew St & Westfield Ave

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	21	111	42	0	16	118	13	0	57	38	7	0	12	21	26
Future Vol, veh/h	0	21	111	42	0	16	118	13	0	57	38	7	0	12	21	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	121	46	0	17	128	14	0	62	41	8	0	13	23	28
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	8.7	8.8	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	56%	12%	11%	20%
Vol Thru, %	37%	64%	80%	36%
Vol Right, %	7%	24%	9%	44%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	102	174	147	59
LT Vol	57	21	16	12
Through Vol	38	111	118	21
RT Vol	7	42	13	26
Lane Flow Rate	111	189	160	64
Geometry Grp	1	1	1	1
Degree of Util (X)	0.15	0.232	0.201	0.083
Departure Headway (Hd)	4.873	4.42	4.538	4.645
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	735	811	791	770
Service Time	2.91	2.451	2.57	2.685
HCM Lane V/C Ratio	0.151	0.233	0.202	0.083
HCM Control Delay	8.8	8.8	8.7	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.9	0.7	0.3

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	21	157	52	0	16	199	13	0	73	38	7	0	12	21	26
Future Vol, veh/h	0	21	157	52	0	16	199	13	0	73	38	7	0	12	21	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	171	57	0	17	216	14	0	79	41	8	0	13	23	28
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.8	10	9.5	8.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	62%	9%	7%	20%
Vol Thru, %	32%	68%	87%	36%
Vol Right, %	6%	23%	6%	44%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	118	230	228	59
LT Vol	73	21	16	12
Through Vol	38	157	199	21
RT Vol	7	52	13	26
Lane Flow Rate	128	250	248	64
Geometry Grp	1	1	1	1
Degree of Util (X)	0.187	0.32	0.323	0.09
Departure Headway (Hd)	5.25	4.605	4.699	5.043
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	678	778	761	704
Service Time	3.322	2.66	2.755	3.123
HCM Lane V/C Ratio	0.189	0.321	0.326	0.091
HCM Control Delay	9.5	9.8	10	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	1.4	1.4	0.3

Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	31	165	62	0	24	175	19	0	119	80	15	0	25	44	55
Future Vol, veh/h	0	31	165	62	0	24	175	19	0	119	80	15	0	25	44	55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	34	179	67	0	26	190	21	0	129	87	16	0	27	48	60
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.9	11.4	11.9	10
HCM LOS	B	B	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	56%	12%	11%	20%
Vol Thru, %	37%	64%	80%	35%
Vol Right, %	7%	24%	9%	44%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	214	258	218	124
LT Vol	119	31	24	25
Through Vol	80	165	175	44
RT Vol	15	62	19	55
Lane Flow Rate	233	280	237	135
Geometry Grp	1	1	1	1
Degree of Util (X)	0.364	0.409	0.355	0.207
Departure Headway (Hd)	5.626	5.245	5.395	5.525
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	637	684	666	647
Service Time	3.672	3.289	3.443	3.577
HCM Lane V/C Ratio	0.366	0.409	0.356	0.209
HCM Control Delay	11.9	11.9	11.4	10
HCM Lane LOS	B	B	B	A
HCM 95th-tile Q	1.7	2	1.6	0.8

Intersection	
Intersection Delay, s/veh	14.1
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	31	211	72	0	24	256	19	0	135	80	15	0	25	44	55
Future Vol, veh/h	0	31	211	72	0	24	256	19	0	135	80	15	0	25	44	55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	34	229	78	0	26	278	21	0	147	87	16	0	27	48	60
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	14.8	14.7	13.8	11.1
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	59%	10%	8%	20%
Vol Thru, %	35%	67%	86%	35%
Vol Right, %	7%	23%	6%	44%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	230	314	299	124
LT Vol	135	31	24	25
Through Vol	80	211	256	44
RT Vol	15	72	19	55
Lane Flow Rate	250	341	325	135
Geometry Grp	1	1	1	1
Degree of Util (X)	0.426	0.528	0.513	0.233
Departure Headway (Hd)	6.134	5.571	5.685	6.216
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	583	642	627	581
Service Time	4.228	3.661	3.777	4.216
HCM Lane V/C Ratio	0.429	0.531	0.518	0.232
HCM Control Delay	13.8	14.8	14.7	11.1
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2.1	3.1	2.9	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	211	72	24	256	19	135	80	15	25	44	55
Future Volume (veh/h)	31	211	72	24	256	19	135	80	15	25	44	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1750	1863	1750	1750	1863	1750	1750	1863	1750	1750	1863	1750
Adj Flow Rate, veh/h	34	229	78	26	278	21	147	87	16	27	48	60
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	277	89	61	360	26	629	361	63	234	416	482
Arrive On Green	0.45	0.45	0.45	0.23	0.23	0.23	0.67	0.67	0.67	0.67	0.67	0.67
Sat Flow, veh/h	107	1218	393	80	1585	115	840	537	94	277	619	717
Grp Volume(v), veh/h	341	0	0	325	0	0	250	0	0	135	0	0
Grp Sat Flow(s),veh/h/ln	1717	0	0	1780	0	0	1472	0	0	1612	0	0
Q Serve(g_s), s	0.6	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	16.0	0.0	0.0	15.4	0.0	0.0	5.3	0.0	0.0	2.5	0.0	0.0
Prop In Lane	0.10		0.23	0.08		0.06	0.59		0.06	0.20		0.44
Lane Grp Cap(c), veh/h	435	0	0	448	0	0	1054	0	0	1132	0	0
V/C Ratio(X)	0.78	0.00	0.00	0.73	0.00	0.00	0.24	0.00	0.00	0.12	0.00	0.00
Avail Cap(c_a), veh/h	833	0	0	862	0	0	1054	0	0	1132	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.30	0.00	0.00	0.64	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.2	0.0	0.0	32.7	0.0	0.0	5.6	0.0	0.0	5.2	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.0	1.4	0.0	0.0	0.5	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	0.0	0.0	7.8	0.0	0.0	2.5	0.0	0.0	1.2	0.0	0.0
LnGrp Delay(d),s/veh	24.2	0.0	0.0	34.1	0.0	0.0	6.2	0.0	0.0	5.4	0.0	0.0
LnGrp LOS	C			C			A			A		
Approach Vol, veh/h		341			325			250			135	
Approach Delay, s/veh		24.2			34.1			6.2			5.4	
Approach LOS		C			C			A			A	

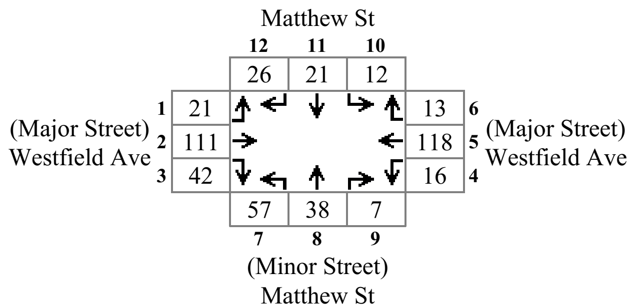
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		65.0		25.0		65.0		25.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		39.1		41.9		39.1		41.9
Max Q Clear Time (g_c+I1), s		7.3		18.0		4.5		17.4
Green Ext Time (p_c), s		1.4		2.5		1.4		2.5

Intersection Summary	
HCM 2010 Ctrl Delay	20.6
HCM 2010 LOS	C

Rural Peak Hour Signal Warrant
Intersection Does Not Meet Signal Warrant

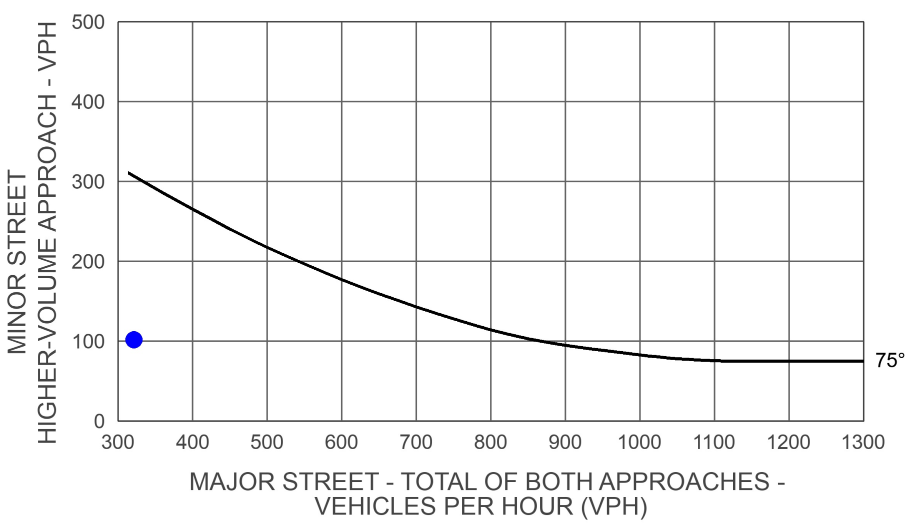
Scenario: PM Existing

Intersection #: 3



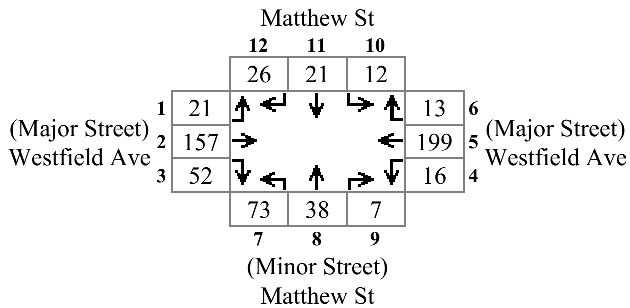
Major Total: 321

Minor High Volume: 102

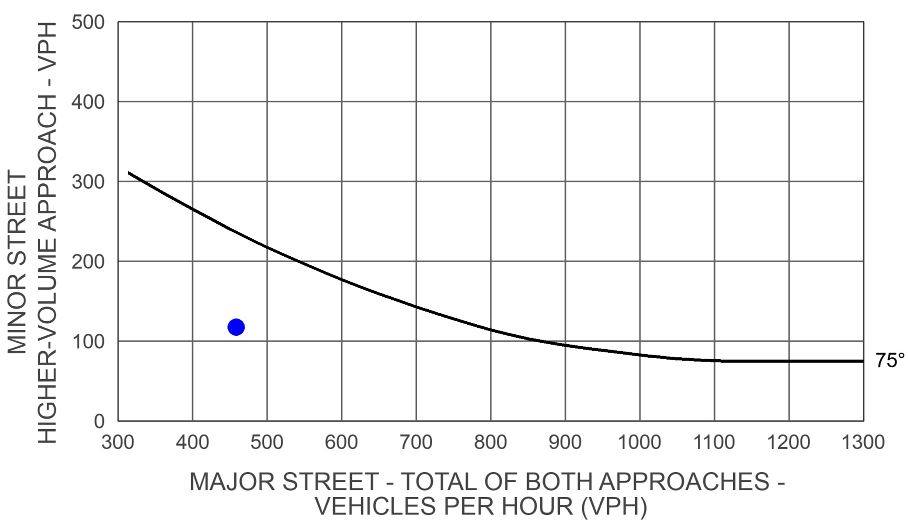


Rural Peak Hour Signal Warrant
Intersection Does Not Meet Signal Warrant

Scenario: PM Existing+Project
Intersection #: 3



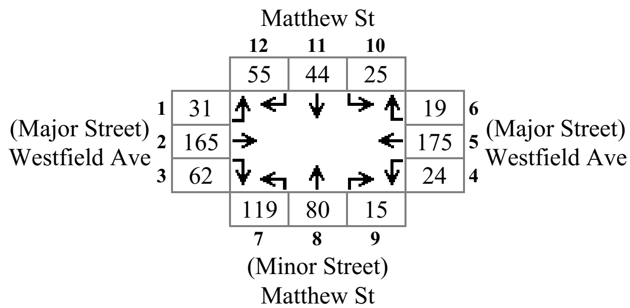
Major Total: 458
Minor High Volume: 118



Rural Peak Hour Signal Warrant
Intersection Does Not Meet Signal Warrant

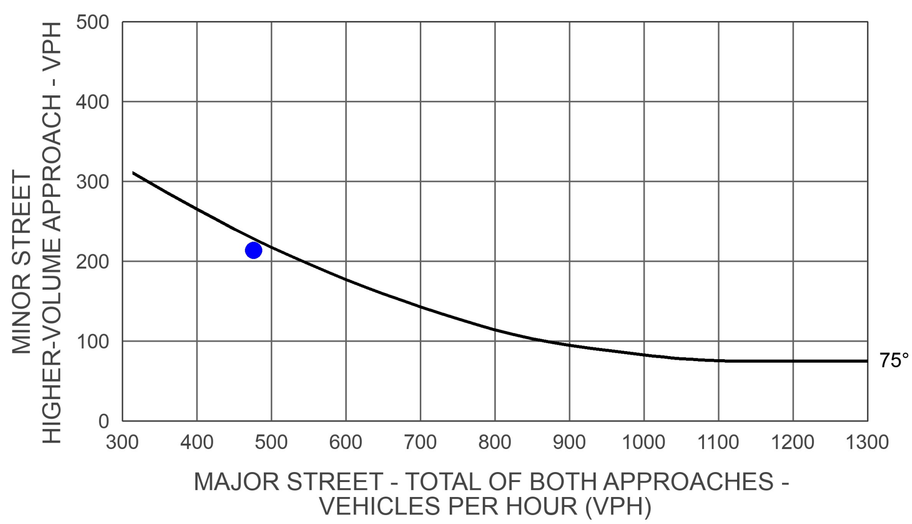
Scenario: PM Future

Intersection #: 3



Major Total: 476

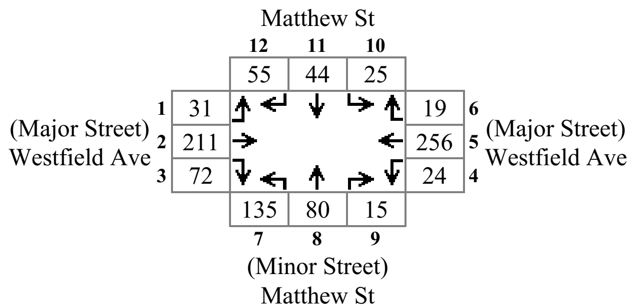
Minor High Volume: 214



Rural Peak Hour Signal Warrant
Intersection Meets Signal Warrant

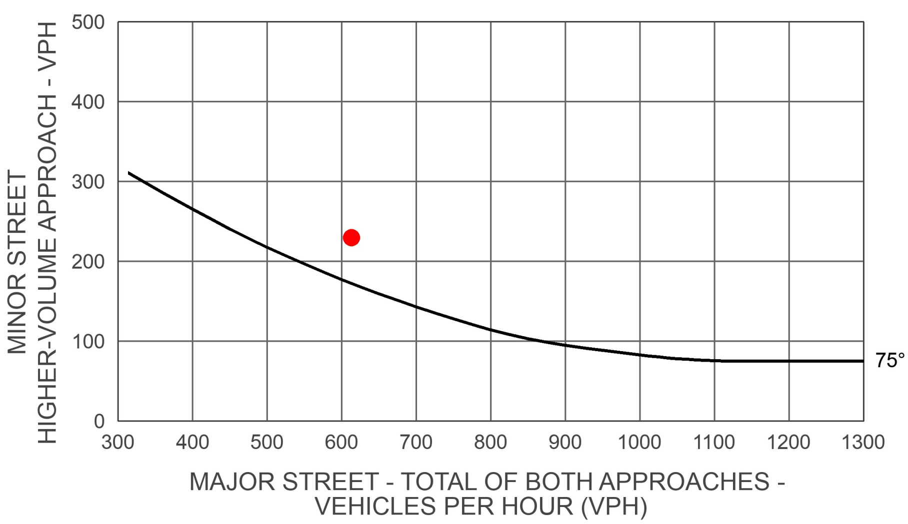
Scenario: PM Future+Project

Intersection #: 3



Major Total: 613

Minor High Volume: 230



Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	40	166	66	0	25	136	4	0	108	33	22	0	17	77	48
Future Vol, veh/h	0	40	166	66	0	25	136	4	0	108	33	22	0	17	77	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	43	180	72	0	27	148	4	0	117	36	24	0	18	84	52
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.5	10.2	10.5	9.9
HCM LOS	B	B	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	66%	15%	15%	12%
Vol Thru, %	20%	61%	82%	54%
Vol Right, %	13%	24%	2%	34%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	163	272	165	142
LT Vol	108	40	25	17
Through Vol	33	166	136	77
RT Vol	22	66	4	48
Lane Flow Rate	177	296	179	154
Geometry Grp	1	1	1	1
Degree of Util (X)	0.27	0.412	0.264	0.227
Departure Headway (Hd)	5.482	5.013	5.306	5.299
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	656	718	676	678
Service Time	3.516	3.041	3.339	3.335
HCM Lane V/C Ratio	0.27	0.412	0.265	0.227
HCM Control Delay	10.5	11.5	10.2	9.9
HCM Lane LOS	B	B	B	A
HCM 95th-tile Q	1.1	2	1.1	0.9

Intersection	
Intersection Delay, s/veh	12.5
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	40	236	81	0	25	160	4	0	113	33	22	0	17	77	48
Future Vol, veh/h	0	40	236	81	0	25	160	4	0	113	33	22	0	17	77	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	43	257	88	0	27	174	4	0	123	36	24	0	18	84	52
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	14.5	11.2	11.4	10.6
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	67%	11%	13%	12%
Vol Thru, %	20%	66%	85%	54%
Vol Right, %	13%	23%	2%	34%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	168	357	189	142
LT Vol	113	40	25	17
Through Vol	33	236	160	77
RT Vol	22	81	4	48
Lane Flow Rate	183	388	205	154
Geometry Grp	1	1	1	1
Degree of Util (X)	0.297	0.555	0.316	0.244
Departure Headway (Hd)	5.858	5.145	5.537	5.69
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	612	698	647	628
Service Time	3.915	3.189	3.591	3.749
HCM Lane V/C Ratio	0.299	0.556	0.317	0.245
HCM Control Delay	11.4	14.5	11.2	10.6
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.2	3.4	1.4	1

Intersection	
Intersection Delay, s/veh	38.9
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	59	247	98	0	37	202	6	0	226	69	46	0	36	161	101
Future Vol, veh/h	0	59	247	98	0	37	202	6	0	226	69	46	0	36	161	101
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	64	268	107	0	40	220	7	0	246	75	50	0	39	175	110
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	54	24.8	39.4	29.3
HCM LOS	F	C	E	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	66%	15%	15%	12%
Vol Thru, %	20%	61%	82%	54%
Vol Right, %	13%	24%	2%	34%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	341	404	245	298
LT Vol	226	59	37	36
Through Vol	69	247	202	161
RT Vol	46	98	6	101
Lane Flow Rate	371	439	266	324
Geometry Grp	1	1	1	1
Degree of Util (X)	0.825	0.93	0.629	0.719
Departure Headway (Hd)	8.131	7.736	8.497	8.111
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	448	470	429	450
Service Time	6.131	5.736	6.497	6.111
HCM Lane V/C Ratio	0.828	0.934	0.62	0.72
HCM Control Delay	39.4	54	24.8	29.3
HCM Lane LOS	E	F	C	D
HCM 95th-tile Q	7.8	10.9	4.2	5.6

Intersection	
Intersection Delay, s/veh	48.8
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	59	317	113	0	37	226	6	0	231	69	46	0	36	161	101
Future Vol, veh/h	0	59	317	113	0	37	226	6	0	231	69	46	0	36	161	101
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	64	345	123	0	40	246	7	0	251	75	50	0	39	175	110
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	71.2	29.5	46.1	32.5
HCM LOS	F	D	E	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	67%	12%	14%	12%
Vol Thru, %	20%	65%	84%	54%
Vol Right, %	13%	23%	2%	34%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	346	489	269	298
LT Vol	231	59	37	36
Through Vol	69	317	226	161
RT Vol	46	113	6	101
Lane Flow Rate	376	532	292	324
Geometry Grp	1	1	1	1
Degree of Util (X)	0.868	1	0.699	0.749
Departure Headway (Hd)	8.307	7.963	8.61	8.328
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	436	457	418	434
Service Time	6.36	6.047	6.677	6.387
HCM Lane V/C Ratio	0.862	1.164	0.699	0.747
HCM Control Delay	46.1	71.2	29.5	32.5
HCM Lane LOS	E	F	D	D
HCM 95th-tile Q	8.8	13	5.2	6.1

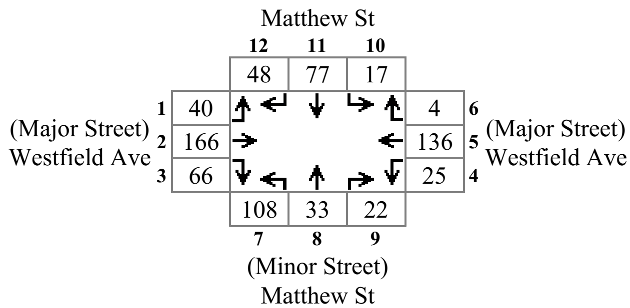
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	317	113	37	226	6	231	69	46	36	161	101
Future Volume (veh/h)	59	317	113	37	226	6	231	69	46	36	161	101
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1750	1863	1750	1750	1863	1750	1750	1863	1750	1750	1863	1750
Adj Flow Rate, veh/h	64	345	123	40	246	7	251	75	50	39	175	110
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	382	130	88	471	13	526	155	94	129	559	331
Arrive On Green	0.66	0.66	0.66	0.33	0.33	0.33	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	153	1167	397	129	1436	38	802	270	164	147	977	578
Grp Volume(v), veh/h	532	0	0	293	0	0	376	0	0	324	0	0
Grp Sat Flow(s),veh/h/ln	1717	0	0	1604	0	0	1237	0	0	1703	0	0
Q Serve(g_s), s	13.2	0.0	0.0	0.0	0.0	0.0	8.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	24.9	0.0	0.0	11.7	0.0	0.0	17.1	0.0	0.0	8.7	0.0	0.0
Prop In Lane	0.12		0.23	0.14		0.02	0.67		0.13	0.12		0.34
Lane Grp Cap(c), veh/h	608	0	0	571	0	0	775	0	0	1019	0	0
V/C Ratio(X)	0.88	0.00	0.00	0.51	0.00	0.00	0.49	0.00	0.00	0.32	0.00	0.00
Avail Cap(c_a), veh/h	756	0	0	716	0	0	775	0	0	1019	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.53	0.00	0.00	0.60	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.5	0.0	0.0	24.2	0.0	0.0	11.9	0.0	0.0	10.1	0.0	0.0
Incr Delay (d2), s/veh	5.4	0.0	0.0	0.4	0.0	0.0	2.2	0.0	0.0	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.1	0.0	0.0	5.9	0.0	0.0	6.2	0.0	0.0	4.4	0.0	0.0
LnGrp Delay(d),s/veh	19.9	0.0	0.0	24.6	0.0	0.0	14.0	0.0	0.0	10.9	0.0	0.0
LnGrp LOS	B			C			B			B		
Approach Vol, veh/h		532			293			376			324	
Approach Delay, s/veh		19.9			24.6			14.0			10.9	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		56.0		34.0		56.0		34.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		43.5		37.5		43.5		37.5
Max Q Clear Time (g_c+I1), s		19.1		26.9		10.7		13.7
Green Ext Time (p_c), s		3.0		2.6		3.1		3.4

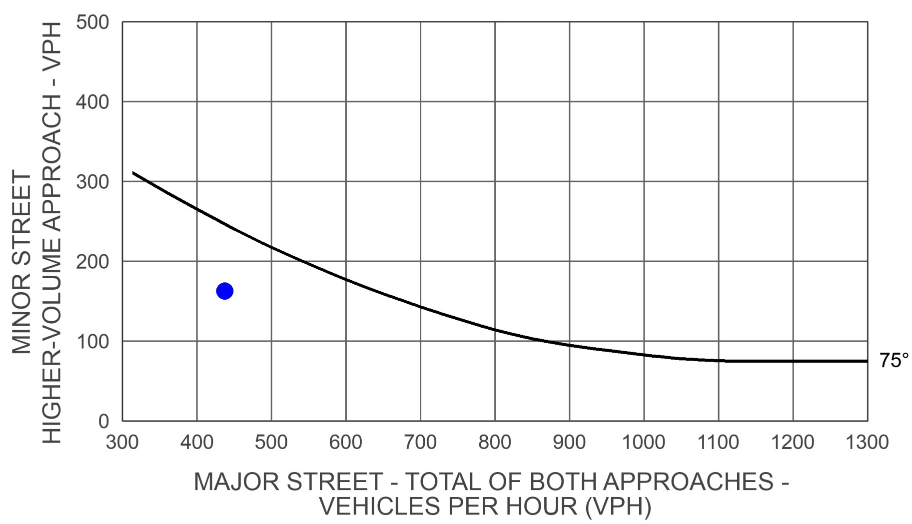
Intersection Summary	
HCM 2010 Ctrl Delay	17.5
HCM 2010 LOS	B

Rural Peak Hour Signal Warrant
Intersection Does Not Meet Signal Warrant

Scenario: AM Existing
Intersection #: 3

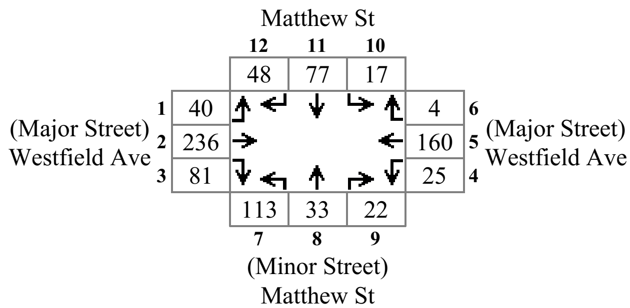


Major Total: 437
Minor High Volume: 163

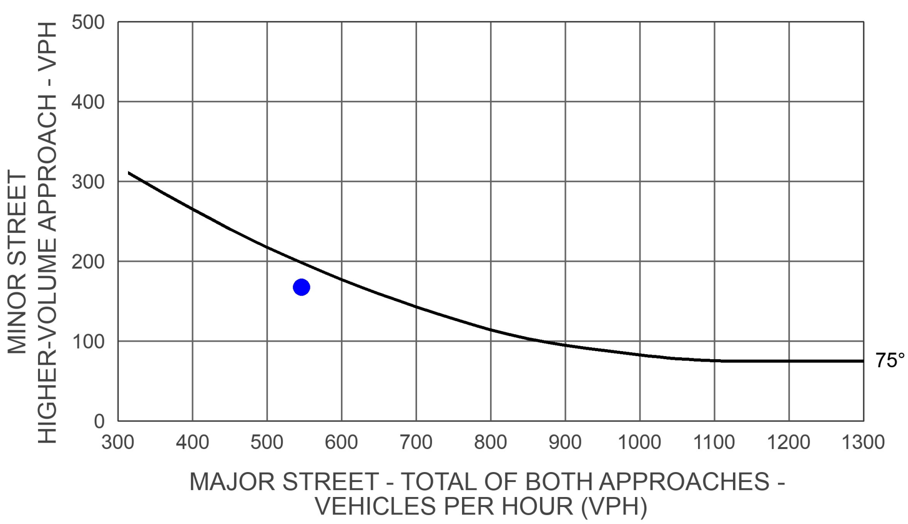


Rural Peak Hour Signal Warrant
Intersection Does Not Meet Signal Warrant

Scenario: AM Existing+Project
Intersection #: 3

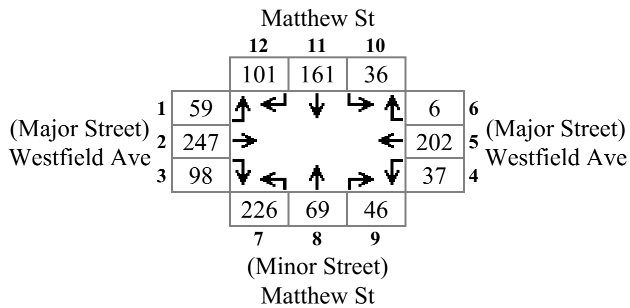


Major Total: 546
Minor High Volume: 168

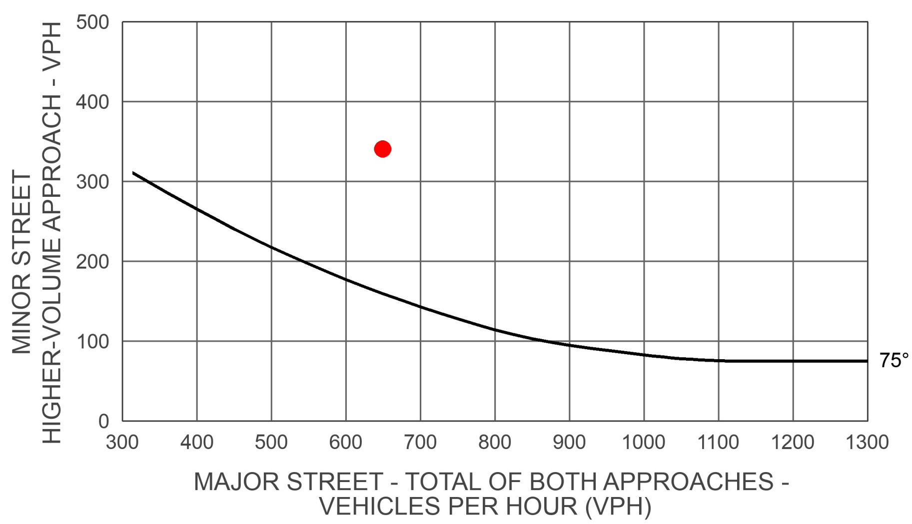


Rural Peak Hour Signal Warrant
Intersection Meets Signal Warrant

Scenario: AM Future
Intersection #: 3

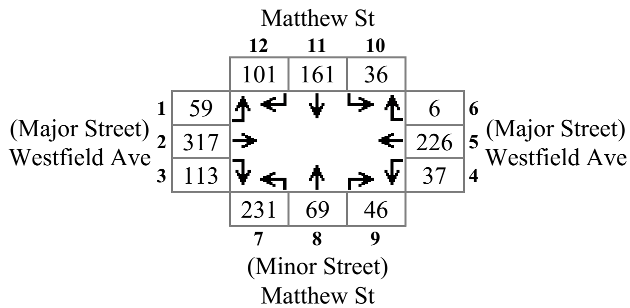


Major Total: 649
Minor High Volume: 341

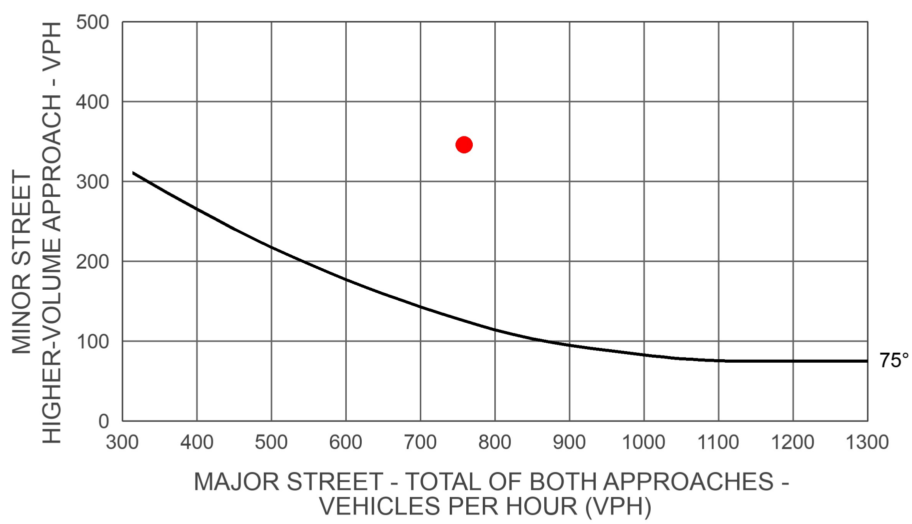


Rural Peak Hour Signal Warrant
Intersection Meets Signal Warrant

Scenario: AM Future+Project
Intersection #: 3



Major Total: 758
Minor High Volume: 346



Intersection 4
Newcomb St & Westfield Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	114	67	43	147	56	84	240	60	35	196	19
Future Volume (veh/h)	13	114	67	43	147	56	84	240	60	35	196	19
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1750	1863	1750	1750	1863	1750	1716	1863	1750	1716	1863	1750
Adj Flow Rate, veh/h	14	124	73	47	160	61	91	261	65	38	213	21
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	77	234	129	116	243	84	129	1502	366	68	1619	158
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.08	0.54	0.52	0.04	0.50	0.49
Sat Flow, veh/h	51	1081	599	198	1124	390	1634	2806	684	1634	3249	317
Grp Volume(v), veh/h	211	0	0	268	0	0	91	162	164	38	115	119
Grp Sat Flow(s),veh/h/ln	1730	0	0	1713	0	0	1634	1770	1721	1634	1770	1797
Q Serve(g_s), s	0.0	0.0	0.0	1.9	0.0	0.0	3.2	2.7	2.9	1.3	2.0	2.1
Cycle Q Clear(g_c), s	6.3	0.0	0.0	8.2	0.0	0.0	3.2	2.7	2.9	1.3	2.0	2.1
Prop In Lane	0.07		0.35	0.18		0.23	1.00		0.40	1.00		0.18
Lane Grp Cap(c), veh/h	440	0	0	443	0	0	129	947	921	68	882	895
V/C Ratio(X)	0.48	0.00	0.00	0.60	0.00	0.00	0.71	0.17	0.18	0.55	0.13	0.13
Avail Cap(c_a), veh/h	702	0	0	736	0	0	130	947	921	130	882	895
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.86	0.86	0.86	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	0.0	0.0	21.0	0.0	0.0	26.1	6.9	7.0	27.3	7.8	7.8
Incr Delay (d2), s/veh	0.8	0.0	0.0	1.3	0.0	0.0	14.1	0.3	0.4	6.8	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.0	4.1	0.0	0.0	1.9	1.4	1.4	0.7	1.1	1.1
LnGrp Delay(d),s/veh	21.1	0.0	0.0	22.3	0.0	0.0	40.2	7.2	7.4	34.1	8.1	8.2
LnGrp LOS	C			C			D	A	A	C	A	A
Approach Vol, veh/h		211			268			417			272	
Approach Delay, s/veh		21.1			22.3			14.5			11.8	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.4	35.0		16.5	8.6	32.9		16.5
Change Period (Y+Rc), s	4.6	4.6		4.0	4.6	4.6		4.0
Max Green Setting (Gmax), s	4.0	18.0		21.6	4.0	18.0		23.0
Max Q Clear Time (g_c+I1), s	3.3	4.9		8.3	5.2	4.1		10.2
Green Ext Time (p_c), s	0.0	1.6		1.5	0.0	1.7		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	16.8
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	129	98	43	174	56	138	240	60	35	196	19
Future Volume (veh/h)	13	129	98	43	174	56	138	240	60	35	196	19
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1750	1863	1750	1750	1863	1750	1716	1863	1750	1716	1863	1750
Adj Flow Rate, veh/h	14	140	107	47	189	61	150	261	65	38	213	21
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	225	163	113	278	82	130	1459	356	68	1568	153
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.08	0.52	0.51	0.04	0.48	0.47
Sat Flow, veh/h	40	972	703	180	1201	357	1634	2806	684	1634	3249	317
Grp Volume(v), veh/h	261	0	0	297	0	0	150	162	164	38	115	119
Grp Sat Flow(s),veh/h/ln	1715	0	0	1738	0	0	1634	1770	1720	1634	1770	1797
Q Serve(g_s), s	0.0	0.0	0.0	0.9	0.0	0.0	4.6	2.8	2.9	1.3	2.1	2.1
Cycle Q Clear(g_c), s	7.9	0.0	0.0	8.8	0.0	0.0	4.6	2.8	2.9	1.3	2.1	2.1
Prop In Lane	0.05		0.41	0.16		0.21	1.00		0.40	1.00		0.18
Lane Grp Cap(c), veh/h	462	0	0	474	0	0	130	920	895	68	854	867
V/C Ratio(X)	0.57	0.00	0.00	0.63	0.00	0.00	1.16	0.18	0.18	0.55	0.13	0.14
Avail Cap(c_a), veh/h	697	0	0	743	0	0	130	920	895	130	854	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.84	0.84	0.84	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.2	0.0	0.0	20.5	0.0	0.0	26.7	7.4	7.5	27.3	8.3	8.3
Incr Delay (d2), s/veh	1.1	0.0	0.0	1.4	0.0	0.0	121.1	0.4	0.4	6.8	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	0.0	4.6	0.0	0.0	6.4	1.4	1.5	0.7	1.1	1.1
LnGrp Delay(d),s/veh	21.3	0.0	0.0	21.9	0.0	0.0	147.8	7.7	7.8	34.1	8.6	8.7
LnGrp LOS	C			C			F	A	A	C	A	A
Approach Vol, veh/h		261			297			476			272	
Approach Delay, s/veh		21.3			21.9			51.9			12.2	
Approach LOS		C			C			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.4	34.2		17.4	8.6	32.0		17.4
Change Period (Y+Rc), s	4.6	4.6		4.0	4.6	4.6		4.0
Max Green Setting (Gmax), s	4.0	18.0		21.6	4.0	18.0		23.0
Max Q Clear Time (g_c+I1), s	3.3	4.9		9.9	6.6	4.1		10.8
Green Ext Time (p_c), s	0.0	1.6		1.7	0.0	1.7		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	30.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	169	100	64	218	83	125	357	89	52	291	28
Future Volume (veh/h)	19	169	100	64	218	83	125	357	89	52	291	28
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1750	1863	1750	1750	1863	1750	1716	1863	1750	1716	1863	1750
Adj Flow Rate, veh/h	21	184	109	70	237	90	136	388	97	57	316	30
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	59	304	170	108	292	104	177	1489	368	81	1544	145
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.11	0.53	0.53	0.05	0.47	0.47
Sat Flow, veh/h	59	1068	599	215	1027	364	1634	2798	691	1634	3261	307
Grp Volume(v), veh/h	314	0	0	397	0	0	136	244	241	57	170	176
Grp Sat Flow(s),veh/h/ln	1725	0	0	1606	0	0	1634	1770	1719	1634	1770	1799
Q Serve(g_s), s	0.0	0.0	0.0	6.9	0.0	0.0	7.3	6.7	6.9	3.1	5.0	5.1
Cycle Q Clear(g_c), s	14.2	0.0	0.0	21.1	0.0	0.0	7.3	6.7	6.9	3.1	5.0	5.1
Prop In Lane	0.07		0.35	0.18		0.23	1.00		0.40	1.00		0.17
Lane Grp Cap(c), veh/h	534	0	0	504	0	0	177	942	915	81	838	852
V/C Ratio(X)	0.59	0.00	0.00	0.79	0.00	0.00	0.77	0.26	0.26	0.70	0.20	0.21
Avail Cap(c_a), veh/h	762	0	0	723	0	0	309	942	915	163	838	852
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.56	0.56	0.56	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	0.0	0.0	30.4	0.0	0.0	39.0	11.4	11.5	42.1	13.8	13.9
Incr Delay (d2), s/veh	1.0	0.0	0.0	3.7	0.0	0.0	3.9	0.4	0.4	10.3	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	0.0	0.0	9.9	0.0	0.0	3.5	3.3	3.3	1.6	2.6	2.7
LnGrp Delay(d),s/veh	29.1	0.0	0.0	34.1	0.0	0.0	42.9	11.8	11.9	52.4	14.3	14.4
LnGrp LOS	C			C			D	B	B	D	B	B
Approach Vol, veh/h		314			397			621			403	
Approach Delay, s/veh		29.1			34.1			18.7			19.8	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.5	51.9		29.6	13.8	46.6		29.6
Change Period (Y+Rc), s	4.6	4.6		4.0	4.6	4.6		4.0
Max Green Setting (Gmax), s	8.4	30.4		38.0	16.4	22.4		38.0
Max Q Clear Time (g_c+I1), s	5.1	8.9		16.2	9.3	7.1		23.1
Green Ext Time (p_c), s	0.0	2.9		2.8	0.2	2.7		2.5

Intersection Summary	
HCM 2010 Ctrl Delay	24.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	184	131	64	245	83	179	357	89	52	291	28
Future Volume (veh/h)	19	184	131	64	245	83	179	357	89	52	291	28
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1750	1863	1750	1750	1863	1750	1716	1863	1750	1716	1863	1750
Adj Flow Rate, veh/h	21	200	142	70	266	90	195	388	97	57	316	30
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	58	306	206	106	323	102	240	1427	352	81	1345	127
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.15	0.51	0.50	0.05	0.41	0.41
Sat Flow, veh/h	50	996	672	194	1051	334	1634	2798	691	1634	3261	307
Grp Volume(v), veh/h	363	0	0	426	0	0	195	244	241	57	170	176
Grp Sat Flow(s),veh/h/ln	1718	0	0	1579	0	0	1634	1770	1719	1634	1770	1798
Q Serve(g_s), s	0.0	0.0	0.0	6.5	0.0	0.0	10.4	7.0	7.2	3.1	5.6	5.7
Cycle Q Clear(g_c), s	16.6	0.0	0.0	23.1	0.0	0.0	10.4	7.0	7.2	3.1	5.6	5.7
Prop In Lane	0.06		0.39	0.16		0.21	1.00		0.40	1.00		0.17
Lane Grp Cap(c), veh/h	570	0	0	531	0	0	240	902	877	81	730	742
V/C Ratio(X)	0.64	0.00	0.00	0.80	0.00	0.00	0.81	0.27	0.28	0.70	0.23	0.24
Avail Cap(c_a), veh/h	724	0	0	679	0	0	363	902	877	145	730	742
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.54	0.54	0.54	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	0.0	0.0	29.4	0.0	0.0	37.2	12.5	12.6	42.1	17.2	17.2
Incr Delay (d2), s/veh	1.2	0.0	0.0	5.4	0.0	0.0	4.5	0.4	0.4	10.4	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	0.0	0.0	10.9	0.0	0.0	5.0	3.6	3.5	1.6	2.9	3.0
LnGrp Delay(d),s/veh	28.6	0.0	0.0	34.7	0.0	0.0	41.7	12.9	13.1	52.5	17.9	18.0
LnGrp LOS	C			C			D	B	B	D	B	B
Approach Vol, veh/h		363			426			680			403	
Approach Delay, s/veh		28.6			34.7			21.2			22.8	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.5	49.9		31.6	17.2	41.1		31.6
Change Period (Y+Rc), s	4.6	4.6		4.0	4.6	4.6		4.0
Max Green Setting (Gmax), s	7.4	33.4		36.0	19.4	21.4		36.0
Max Q Clear Time (g_c+I1), s	5.1	9.2		18.6	12.4	7.7		25.1
Green Ext Time (p_c), s	0.0	3.0		3.0	0.3	2.6		2.5

Intersection Summary	
HCM 2010 Ctrl Delay	26.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	184	131	64	245	83	179	357	89	52	291	28
Future Volume (veh/h)	19	184	131	64	245	83	179	357	89	52	291	28
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1750	1863	1750	1750	1863	1750	1716	1863	1750	1716	1863	1750
Adj Flow Rate, veh/h	21	200	142	70	266	90	195	388	97	57	316	30
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	310	209	132	348	109	130	1214	300	85	1326	125
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.08	0.43	0.42	0.05	0.41	0.40
Sat Flow, veh/h	47	1010	679	194	1135	356	1634	2797	691	1634	3261	307
Grp Volume(v), veh/h	363	0	0	426	0	0	195	244	241	57	170	176
Grp Sat Flow(s),veh/h/ln	1737	0	0	1684	0	0	1634	1770	1718	1634	1770	1798
Q Serve(g_s), s	0.0	0.0	0.0	2.7	0.0	0.0	4.6	5.2	5.4	2.0	3.7	3.7
Cycle Q Clear(g_c), s	10.6	0.0	0.0	13.3	0.0	0.0	4.6	5.2	5.4	2.0	3.7	3.7
Prop In Lane	0.06		0.39	0.16		0.21	1.00		0.40	1.00		0.17
Lane Grp Cap(c), veh/h	599	0	0	589	0	0	130	768	746	85	720	731
V/C Ratio(X)	0.61	0.00	0.00	0.72	0.00	0.00	1.50	0.32	0.32	0.67	0.24	0.24
Avail Cap(c_a), veh/h	707	0	0	731	0	0	130	768	746	130	720	731
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.52	0.00	0.00	1.00	0.00	0.00	0.65	0.65	0.65	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.6	0.0	0.0	18.4	0.0	0.0	26.7	10.8	10.9	27.0	11.3	11.3
Incr Delay (d2), s/veh	0.6	0.0	0.0	2.7	0.0	0.0	251.4	0.7	0.7	8.9	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	0.0	0.0	6.7	0.0	0.0	11.1	2.7	2.7	1.1	2.0	2.0
LnGrp Delay(d),s/veh	18.2	0.0	0.0	21.1	0.0	0.0	278.1	11.5	11.6	36.0	12.1	12.1
LnGrp LOS	B			C			F	B	B	D	B	B
Approach Vol, veh/h		363			426			680			403	
Approach Delay, s/veh		18.2			21.1			88.0			15.5	
Approach LOS		B			C			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.0	29.2		21.8	8.6	27.6		21.8
Change Period (Y+Rc), s	4.6	4.6		4.0	4.6	4.6		4.0
Max Green Setting (Gmax), s	4.0	18.0		21.6	4.0	18.0		23.0
Max Q Clear Time (g_c+I1), s	4.0	7.4		12.6	6.6	5.7		15.3
Green Ext Time (p_c), s	0.0	2.3		2.3	0.0	2.5		2.1

Intersection Summary	
HCM 2010 Ctrl Delay	43.6
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	177	95	96	112	34	47	163	70	71	266	14
Future Volume (veh/h)	22	177	95	96	112	34	47	163	70	71	266	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1750	1863	1750	1750	1863	1750	1716	1863	1750	1716	1863	1750
Adj Flow Rate, veh/h	24	192	103	104	122	37	51	177	76	77	289	15
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	83	273	138	198	193	50	80	1168	479	111	1709	88
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.05	0.48	0.47	0.07	0.50	0.49
Sat Flow, veh/h	68	1117	565	456	789	204	1634	2428	996	1634	3419	177
Grp Volume(v), veh/h	319	0	0	263	0	0	51	127	126	77	149	155
Grp Sat Flow(s),veh/h/ln	1750	0	0	1450	0	0	1634	1770	1655	1634	1770	1826
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.8	2.3	2.5	2.7	2.7	2.7
Cycle Q Clear(g_c), s	9.6	0.0	0.0	9.6	0.0	0.0	1.8	2.3	2.5	2.7	2.7	2.7
Prop In Lane	0.08		0.32	0.40		0.14	1.00		0.60	1.00		0.10
Lane Grp Cap(c), veh/h	494	0	0	441	0	0	80	851	796	111	884	913
V/C Ratio(X)	0.65	0.00	0.00	0.60	0.00	0.00	0.64	0.15	0.16	0.70	0.17	0.17
Avail Cap(c_a), veh/h	710	0	0	656	0	0	130	851	796	130	884	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.87	0.87	0.87	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.2	0.0	0.0	19.9	0.0	0.0	27.1	8.4	8.6	26.5	7.9	7.9
Incr Delay (d2), s/veh	1.4	0.0	0.0	1.3	0.0	0.0	7.1	0.3	0.4	12.5	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.0	0.0	4.0	0.0	0.0	1.0	1.2	1.2	1.6	1.4	1.4
LnGrp Delay(d),s/veh	21.6	0.0	0.0	21.2	0.0	0.0	34.2	8.7	8.9	38.9	8.3	8.4
LnGrp LOS	C			C			C	A	A	D	A	A
Approach Vol, veh/h		319			263			304			381	
Approach Delay, s/veh		21.6			21.2			13.1			14.5	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.9	31.9		18.2	6.8	33.0		18.2
Change Period (Y+Rc), s	4.6	4.6		4.0	4.6	4.6		4.0
Max Green Setting (Gmax), s	4.0	18.0		21.6	4.0	18.0		23.0
Max Q Clear Time (g_c+I1), s	4.7	4.5		11.6	3.8	4.7		11.6
Green Ext Time (p_c), s	0.0	1.6		1.7	0.0	1.6		1.8

Intersection Summary	
HCM 2010 Ctrl Delay	17.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	200	142	96	120	34	63	163	70	71	266	14
Future Volume (veh/h)	22	200	142	96	120	34	63	163	70	71	266	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1750	1863	1750	1750	1863	1750	1716	1863	1750	1716	1863	1750
Adj Flow Rate, veh/h	24	217	154	104	130	37	68	177	76	77	289	15
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	283	190	197	220	52	99	1075	441	111	1538	79
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.06	0.44	0.43	0.07	0.45	0.44
Sat Flow, veh/h	52	1000	672	393	777	185	1634	2428	996	1634	3419	177
Grp Volume(v), veh/h	395	0	0	271	0	0	68	127	126	77	149	155
Grp Sat Flow(s),veh/h/ln	1725	0	0	1355	0	0	1634	1770	1654	1634	1770	1826
Q Serve(g_s), s	2.0	0.0	0.0	0.0	0.0	0.0	2.4	2.5	2.7	2.7	2.9	3.0
Cycle Q Clear(g_c), s	12.2	0.0	0.0	10.2	0.0	0.0	2.4	2.5	2.7	2.7	2.9	3.0
Prop In Lane	0.06		0.39	0.38		0.14	1.00		0.60	1.00		0.10
Lane Grp Cap(c), veh/h	553	0	0	469	0	0	99	784	732	111	796	822
V/C Ratio(X)	0.71	0.00	0.00	0.58	0.00	0.00	0.69	0.16	0.17	0.70	0.19	0.19
Avail Cap(c_a), veh/h	704	0	0	626	0	0	130	784	732	130	796	822
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.87	0.87	0.87	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.3	0.0	0.0	18.2	0.0	0.0	26.7	9.7	9.9	26.5	9.6	9.6
Incr Delay (d2), s/veh	2.5	0.0	0.0	1.1	0.0	0.0	8.4	0.4	0.4	12.5	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	0.0	0.0	4.0	0.0	0.0	1.3	1.3	1.3	1.6	1.5	1.6
LnGrp Delay(d),s/veh	21.8	0.0	0.0	19.3	0.0	0.0	35.1	10.1	10.3	38.9	10.1	10.1
LnGrp LOS	C			B			D	B	B	D	B	B
Approach Vol, veh/h		395			271			321			381	
Approach Delay, s/veh		21.8			19.3			15.5			15.9	
Approach LOS		C			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.9	29.7		20.4	7.5	30.1		20.4
Change Period (Y+Rc), s	4.6	4.6		4.0	4.6	4.6		4.0
Max Green Setting (Gmax), s	4.0	18.0		21.6	4.0	18.0		23.0
Max Q Clear Time (g_c+I1), s	4.7	4.7		14.2	4.4	5.0		12.2
Green Ext Time (p_c), s	0.0	1.6		1.7	0.0	1.6		2.1

Intersection Summary	
HCM 2010 Ctrl Delay	18.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	263	141	143	166	51	70	242	104	106	395	21
Future Volume (veh/h)	33	263	141	143	166	51	70	242	104	106	395	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1750	1863	1750	1750	1863	1750	1716	1863	1750	1716	1863	1750
Adj Flow Rate, veh/h	36	286	153	155	180	55	76	263	113	115	429	23
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	400	203	233	238	63	109	853	355	130	1248	67
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.07	0.35	0.34	0.08	0.37	0.36
Sat Flow, veh/h	73	1110	562	407	661	175	1634	2415	1005	1634	3411	182
Grp Volume(v), veh/h	475	0	0	390	0	0	76	190	186	115	222	230
Grp Sat Flow(s),veh/h/ln	1745	0	0	1243	0	0	1634	1770	1650	1634	1770	1824
Q Serve(g_s), s	0.0	0.0	0.0	3.5	0.0	0.0	2.6	4.5	4.8	4.0	5.3	5.3
Cycle Q Clear(g_c), s	13.7	0.0	0.0	17.3	0.0	0.0	2.6	4.5	4.8	4.0	5.3	5.3
Prop In Lane	0.08		0.32	0.40		0.14	1.00		0.61	1.00		0.10
Lane Grp Cap(c), veh/h	696	0	0	535	0	0	109	625	583	130	647	667
V/C Ratio(X)	0.68	0.00	0.00	0.73	0.00	0.00	0.70	0.30	0.32	0.89	0.34	0.34
Avail Cap(c_a), veh/h	716	0	0	582	0	0	130	625	583	130	647	667
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.61	0.61	0.61	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.3	0.0	0.0	17.0	0.0	0.0	26.5	13.6	13.8	26.4	13.3	13.4
Incr Delay (d2), s/veh	2.6	0.0	0.0	4.2	0.0	0.0	7.7	0.8	0.9	46.8	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	0.0	0.0	6.4	0.0	0.0	1.4	2.4	2.3	3.5	2.8	2.9
LnGrp Delay(d),s/veh	18.9	0.0	0.0	21.3	0.0	0.0	34.2	14.4	14.7	73.3	14.8	14.8
LnGrp LOS	B			C			C	B	B	E	B	B
Approach Vol, veh/h		475			390			452			567	
Approach Delay, s/veh		18.9			21.3			17.8			26.6	
Approach LOS		B			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.6	24.5		24.9	7.9	25.2		24.9
Change Period (Y+Rc), s	4.6	4.6		4.0	4.6	4.6		4.0
Max Green Setting (Gmax), s	4.0	18.0		21.6	4.0	18.0		23.0
Max Q Clear Time (g_c+I1), s	6.0	6.8		15.7	4.6	7.3		19.3
Green Ext Time (p_c), s	0.0	2.4		2.0	0.0	2.3		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	21.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	286	188	143	174	51	86	242	104	106	395	21
Future Volume (veh/h)	33	286	188	143	174	51	86	242	104	106	395	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1750	1863	1750	1750	1863	1750	1716	1863	1750	1716	1863	1750
Adj Flow Rate, veh/h	36	311	204	155	189	55	93	263	113	115	429	23
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	394	245	221	239	60	130	804	334	130	1135	61
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.08	0.33	0.32	0.08	0.33	0.32
Sat Flow, veh/h	62	1033	644	353	628	157	1634	2414	1004	1634	3411	182
Grp Volume(v), veh/h	551	0	0	399	0	0	93	190	186	115	222	230
Grp Sat Flow(s),veh/h/ln	1739	0	0	1138	0	0	1634	1770	1649	1634	1770	1824
Q Serve(g_s), s	0.0	0.0	0.0	3.2	0.0	0.0	3.2	4.7	4.9	4.0	5.5	5.6
Cycle Q Clear(g_c), s	16.6	0.0	0.0	19.8	0.0	0.0	3.2	4.7	4.9	4.0	5.5	5.6
Prop In Lane	0.07		0.37	0.39		0.14	1.00		0.61	1.00		0.10
Lane Grp Cap(c), veh/h	729	0	0	520	0	0	130	589	549	130	589	607
V/C Ratio(X)	0.76	0.00	0.00	0.77	0.00	0.00	0.72	0.32	0.34	0.89	0.38	0.38
Avail Cap(c_a), veh/h	729	0	0	540	0	0	130	589	549	130	589	607
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.63	0.63	0.63	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.3	0.0	0.0	16.7	0.0	0.0	26.1	14.5	14.7	26.4	14.8	14.8
Incr Delay (d2), s/veh	4.5	0.0	0.0	6.4	0.0	0.0	11.4	0.9	1.1	46.8	1.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	0.0	0.0	7.0	0.0	0.0	1.9	2.4	2.4	3.5	3.0	3.1
LnGrp Delay(d),s/veh	20.8	0.0	0.0	23.1	0.0	0.0	37.5	15.4	15.7	73.3	16.6	16.6
LnGrp LOS	C			C			D	B	B	E	B	B
Approach Vol, veh/h		551			399			469			567	
Approach Delay, s/veh		20.8			23.1			19.9			28.1	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.6	23.3		26.1	8.6	23.3		26.1
Change Period (Y+Rc), s	4.6	4.6		4.0	4.6	4.6		4.0
Max Green Setting (Gmax), s	4.0	18.0		21.6	4.0	18.0		23.0
Max Q Clear Time (g_c+I1), s	6.0	6.9		18.6	5.2	7.6		21.8
Green Ext Time (p_c), s	0.0	2.4		1.4	0.0	2.3		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	23.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	286	188	143	174	51	86	242	104	106	395	21
Future Volume (veh/h)	33	286	188	143	174	51	86	242	104	106	395	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1750	1863	1750	1750	1863	1750	1716	1863	1750	1716	1863	1750
Adj Flow Rate, veh/h	36	311	204	155	189	55	93	263	113	115	429	23
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	394	245	221	239	60	130	804	334	130	1135	61
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.08	0.33	0.32	0.08	0.33	0.32
Sat Flow, veh/h	62	1033	644	353	628	157	1634	2414	1004	1634	3411	182
Grp Volume(v), veh/h	551	0	0	399	0	0	93	190	186	115	222	230
Grp Sat Flow(s),veh/h/ln	1739	0	0	1138	0	0	1634	1770	1649	1634	1770	1824
Q Serve(g_s), s	0.0	0.0	0.0	3.2	0.0	0.0	3.2	4.7	4.9	4.0	5.5	5.6
Cycle Q Clear(g_c), s	16.6	0.0	0.0	19.8	0.0	0.0	3.2	4.7	4.9	4.0	5.5	5.6
Prop In Lane	0.07		0.37	0.39		0.14	1.00		0.61	1.00		0.10
Lane Grp Cap(c), veh/h	729	0	0	520	0	0	130	589	549	130	589	607
V/C Ratio(X)	0.76	0.00	0.00	0.77	0.00	0.00	0.72	0.32	0.34	0.89	0.38	0.38
Avail Cap(c_a), veh/h	729	0	0	540	0	0	130	589	549	130	589	607
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.36	0.00	0.00	1.00	0.00	0.00	0.73	0.73	0.73	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.3	0.0	0.0	16.7	0.0	0.0	26.1	14.5	14.7	26.4	14.8	14.8
Incr Delay (d2), s/veh	1.7	0.0	0.0	6.4	0.0	0.0	12.9	1.1	1.2	46.8	1.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	0.0	0.0	7.0	0.0	0.0	1.9	2.4	2.4	3.5	3.0	3.1
LnGrp Delay(d),s/veh	18.0	0.0	0.0	23.1	0.0	0.0	39.0	15.5	15.9	73.3	16.6	16.6
LnGrp LOS	B			C			D	B	B	E	B	B
Approach Vol, veh/h		551			399			469			567	
Approach Delay, s/veh		18.0			23.1			20.3			28.1	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.6	23.3		26.1	8.6	23.3		26.1
Change Period (Y+Rc), s	4.6	4.6		4.0	4.6	4.6		4.0
Max Green Setting (Gmax), s	4.0	18.0		21.6	4.0	18.0		23.0
Max Q Clear Time (g_c+I1), s	6.0	6.9		18.6	5.2	7.6		21.8
Green Ext Time (p_c), s	0.0	2.4		1.4	0.0	2.3		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	22.4
HCM 2010 LOS	C

Intersection 5
Westwood St & Henderson Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	133	34	81	120	85	25	197	108	93	191	29
Future Volume (veh/h)	44	133	34	81	120	85	25	197	108	93	191	29
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1716	1716	1863	1716	1716	1863	1716	1716	1863	1716
Adj Flow Rate, veh/h	48	145	37	88	130	92	27	214	117	101	208	32
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	70	254	190	121	313	239	47	984	750	137	1087	829
Arrive On Green	0.04	0.14	0.14	0.07	0.17	0.17	0.03	0.53	0.53	0.08	0.58	0.58
Sat Flow, veh/h	1634	1863	1395	1634	1863	1424	1634	1863	1420	1634	1863	1421
Grp Volume(v), veh/h	48	145	37	88	130	92	27	214	117	101	208	32
Grp Sat Flow(s),veh/h/ln	1634	1863	1395	1634	1863	1424	1634	1863	1420	1634	1863	1421
Q Serve(g_s), s	2.6	6.6	2.1	4.7	5.6	5.2	1.5	5.5	3.8	5.4	4.7	0.9
Cycle Q Clear(g_c), s	2.6	6.6	2.1	4.7	5.6	5.2	1.5	5.5	3.8	5.4	4.7	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	70	254	190	121	313	239	47	984	750	137	1087	829
V/C Ratio(X)	0.69	0.57	0.19	0.73	0.42	0.38	0.58	0.22	0.16	0.74	0.19	0.04
Avail Cap(c_a), veh/h	131	538	403	200	617	472	109	984	750	236	1087	829
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.5	36.4	34.5	40.8	33.5	33.3	43.2	11.3	10.9	40.3	8.8	8.0
Incr Delay (d2), s/veh	11.5	2.0	0.5	8.1	0.9	1.0	10.9	0.5	0.4	7.6	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	3.5	0.8	2.4	3.0	2.1	0.8	2.9	1.6	2.7	2.5	0.4
LnGrp Delay(d),s/veh	54.0	38.4	35.0	48.9	34.4	34.3	54.1	11.8	11.4	47.8	9.2	8.1
LnGrp LOS	D	D	C	D	C	C	D	B	B	D	A	A
Approach Vol, veh/h		230			310			358			341	
Approach Delay, s/veh		41.1			38.5			14.9			20.5	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	51.5	10.7	16.3	6.6	56.5	7.8	19.1
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	12.4	23.4	10.4	25.4	5.4	30.4	6.6	29.2
Max Q Clear Time (g_c+I1), s	7.4	7.5	6.7	8.6	3.5	6.7	4.6	7.6
Green Ext Time (p_c), s	0.1	1.8	0.1	1.3	0.0	2.0	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	27.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	133	34	81	120	101	25	221	108	103	205	32
Future Volume (veh/h)	47	133	34	81	120	101	25	221	108	103	205	32
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1716	1716	1863	1716	1716	1863	1716	1716	1863	1716
Adj Flow Rate, veh/h	51	145	37	88	130	110	27	240	117	112	223	35
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	73	256	191	121	309	237	47	968	738	149	1085	828
Arrive On Green	0.04	0.14	0.14	0.07	0.17	0.17	0.03	0.52	0.52	0.09	0.58	0.58
Sat Flow, veh/h	1634	1863	1395	1634	1863	1424	1634	1863	1420	1634	1863	1421
Grp Volume(v), veh/h	51	145	37	88	130	110	27	240	117	112	223	35
Grp Sat Flow(s),veh/h/ln	1634	1863	1395	1634	1863	1424	1634	1863	1420	1634	1863	1421
Q Serve(g_s), s	2.8	6.6	2.1	4.7	5.6	6.3	1.5	6.4	3.9	6.0	5.1	0.9
Cycle Q Clear(g_c), s	2.8	6.6	2.1	4.7	5.6	6.3	1.5	6.4	3.9	6.0	5.1	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	73	256	191	121	309	237	47	968	738	149	1085	828
V/C Ratio(X)	0.69	0.57	0.19	0.73	0.42	0.47	0.58	0.25	0.16	0.75	0.21	0.04
Avail Cap(c_a), veh/h	133	538	403	200	615	470	109	968	738	240	1085	828
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.4	36.3	34.4	40.8	33.6	33.9	43.2	11.9	11.3	39.9	8.9	8.0
Incr Delay (d2), s/veh	11.1	2.0	0.5	8.1	0.9	1.4	10.9	0.6	0.5	7.3	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	3.5	0.8	2.4	3.0	2.6	0.8	3.4	1.6	3.0	2.7	0.4
LnGrp Delay(d),s/veh	53.5	38.3	34.9	48.9	34.5	35.3	54.1	12.5	11.8	47.2	9.3	8.1
LnGrp LOS	D	D	C	D	C	D	D	B	B	D	A	A
Approach Vol, veh/h		233			328			384			370	
Approach Delay, s/veh		41.1			38.7			15.2			20.7	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	50.8	10.7	16.3	6.6	56.4	8.0	18.9
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	12.6	23.2	10.4	25.4	5.4	30.4	6.7	29.1
Max Q Clear Time (g_c+I1), s	8.0	8.4	6.7	8.6	3.5	7.1	4.8	8.3
Green Ext Time (p_c), s	0.1	2.0	0.1	1.3	0.0	2.2	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	27.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	198	51	120	178	126	68	537	294	217	445	68
Future Volume (veh/h)	65	198	51	120	178	126	68	537	294	217	445	68
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1716	1716	1863	1716	1716	1863	1716	1716	1863	1716
Adj Flow Rate, veh/h	71	215	55	130	193	137	74	584	320	236	484	74
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	152	304	229	140	290	222	103	795	605	240	951	725
Arrive On Green	0.09	0.16	0.16	0.09	0.16	0.16	0.06	0.43	0.43	0.15	0.51	0.51
Sat Flow, veh/h	1634	1863	1401	1634	1863	1423	1634	1863	1418	1634	1863	1420
Grp Volume(v), veh/h	71	215	55	130	193	137	74	584	320	236	484	74
Grp Sat Flow(s),veh/h/ln	1634	1863	1401	1634	1863	1423	1634	1863	1418	1634	1863	1420
Q Serve(g_s), s	3.7	9.8	2.5	7.1	8.8	5.7	4.0	23.6	10.1	13.0	15.5	1.5
Cycle Q Clear(g_c), s	3.7	9.8	2.5	7.1	8.8	5.7	4.0	23.6	10.1	13.0	15.5	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	152	304	229	140	290	222	103	795	605	240	951	725
V/C Ratio(X)	0.47	0.71	0.24	0.93	0.67	0.62	0.72	0.73	0.53	0.98	0.51	0.10
Avail Cap(c_a), veh/h	152	536	403	140	555	424	127	795	605	240	951	725
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	35.6	21.1	40.9	35.8	17.7	41.4	21.5	8.6	38.3	14.6	4.1
Incr Delay (d2), s/veh	2.2	3.0	0.5	55.3	2.6	2.8	14.0	6.0	3.3	53.7	1.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	5.3	1.0	5.4	4.7	2.4	2.2	13.3	4.4	9.4	8.4	0.6
LnGrp Delay(d),s/veh	40.9	38.6	21.7	96.1	38.4	20.4	55.4	27.5	11.9	92.0	16.5	4.4
LnGrp LOS	D	D	C	F	D	C	E	C	B	F	B	A
Approach Vol, veh/h		341			460			978			794	
Approach Delay, s/veh		36.4			49.4			24.5			37.8	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.2	42.4	11.7	18.7	9.7	49.9	12.4	18.0
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	12.6	26.6	7.1	25.3	6.4	32.8	6.2	26.2
Max Q Clear Time (g_c+I1), s	15.0	25.6	9.1	11.8	6.0	17.5	5.7	10.8
Green Ext Time (p_c), s	0.0	0.7	0.0	0.7	0.0	5.5	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	34.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	198	51	120	178	142	68	561	294	227	459	71
Future Volume (veh/h)	68	198	51	120	178	142	68	561	294	227	459	71
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1716	1716	1863	1716	1716	1863	1716	1716	1863	1716
Adj Flow Rate, veh/h	74	215	55	130	193	154	74	610	320	247	499	77
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	102	293	220	146	344	263	102	810	617	264	996	759
Arrive On Green	0.06	0.16	0.16	0.09	0.18	0.18	0.06	0.43	0.43	0.16	0.53	0.53
Sat Flow, veh/h	1634	1863	1400	1634	1863	1426	1634	1863	1418	1634	1863	1420
Grp Volume(v), veh/h	74	215	55	130	193	154	74	610	320	247	499	77
Grp Sat Flow(s),veh/h/ln	1634	1863	1400	1634	1863	1426	1634	1863	1418	1634	1863	1420
Q Serve(g_s), s	4.5	11.2	2.9	8.0	9.6	10.1	4.5	28.1	11.5	15.2	17.4	2.7
Cycle Q Clear(g_c), s	4.5	11.2	2.9	8.0	9.6	10.1	4.5	28.1	11.5	15.2	17.4	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	102	293	220	146	344	263	102	810	617	264	996	759
V/C Ratio(X)	0.73	0.73	0.25	0.89	0.56	0.59	0.73	0.75	0.52	0.93	0.50	0.10
Avail Cap(c_a), veh/h	120	473	355	146	502	384	122	810	617	264	996	759
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	40.9	25.3	46.0	37.8	38.0	47.0	24.2	9.8	42.2	15.1	11.7
Incr Delay (d2), s/veh	16.7	3.5	0.6	44.3	1.4	2.1	16.2	6.4	3.1	38.0	1.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	6.1	1.1	5.4	5.1	4.1	2.5	15.8	5.0	9.7	9.4	1.1
LnGrp Delay(d),s/veh	63.7	44.5	25.9	90.2	39.3	40.1	63.2	30.6	12.9	80.3	16.9	12.0
LnGrp LOS	E	D	C	F	D	D	E	C	B	F	B	B
Approach Vol, veh/h		344			477			1004			823	
Approach Delay, s/veh		45.6			53.4			27.4			35.5	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.5	48.4	13.1	20.0	10.3	58.5	10.3	22.8
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	15.9	33.9	8.5	25.3	7.0	42.8	6.9	26.9
Max Q Clear Time (g_c+I1), s	17.2	30.1	10.0	13.2	6.5	19.4	6.5	12.1
Green Ext Time (p_c), s	0.0	2.3	0.0	0.7	0.0	6.6	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	37.0
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	198	51	120	178	142	68	561	294	227	459	71
Future Volume (veh/h)	68	198	51	120	178	142	68	561	294	227	459	71
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1716	1716	1863	1716	1716	1863	1716	1716	1863	1716
Adj Flow Rate, veh/h	74	215	55	130	193	154	74	610	320	247	499	77
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	100	292	220	163	364	278	100	1546	620	283	1022	780
Arrive On Green	0.06	0.16	0.16	0.10	0.20	0.20	0.06	0.44	0.44	0.17	0.55	0.55
Sat Flow, veh/h	1634	1863	1400	1634	1863	1427	1634	3539	1419	1634	1863	1421
Grp Volume(v), veh/h	74	215	55	130	193	154	74	610	320	247	499	77
Grp Sat Flow(s),veh/h/ln	1634	1863	1400	1634	1863	1427	1634	1770	1419	1634	1863	1421
Q Serve(g_s), s	5.3	13.2	4.1	9.3	11.2	11.7	5.3	14.1	19.7	17.7	19.8	3.1
Cycle Q Clear(g_c), s	5.3	13.2	4.1	9.3	11.2	11.7	5.3	14.1	19.7	17.7	19.8	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	100	292	220	163	364	278	100	1546	620	283	1022	780
V/C Ratio(X)	0.74	0.74	0.25	0.80	0.53	0.55	0.74	0.39	0.52	0.87	0.49	0.10
Avail Cap(c_a), veh/h	155	404	303	245	506	388	155	1546	620	395	1022	780
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	55.4	48.2	44.4	52.8	43.4	43.6	55.4	23.0	24.6	48.3	16.7	12.9
Incr Delay (d2), s/veh	10.1	4.4	0.6	10.4	1.2	1.7	10.1	0.8	3.1	14.1	1.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	7.2	1.6	4.7	5.9	4.7	2.7	7.0	8.2	9.1	10.6	1.3
LnGrp Delay(d),s/veh	65.5	52.6	45.0	63.2	44.6	45.3	65.5	23.7	27.6	62.4	18.3	13.2
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	B	B
Approach Vol, veh/h		344			477			1004			823	
Approach Delay, s/veh		54.2			49.9			28.1			31.1	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.8	56.4	16.0	22.8	11.4	69.9	11.4	27.4
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	28.4	30.4	17.4	25.4	10.8	48.0	10.8	32.0
Max Q Clear Time (g_c+I1), s	19.7	21.7	11.3	15.2	7.3	21.8	7.3	13.7
Green Ext Time (p_c), s	0.5	4.3	0.2	1.7	0.0	7.0	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	36.3
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	95	38	101	80	151	38	299	97	110	381	50
Future Volume (veh/h)	38	95	38	101	80	151	38	299	97	110	381	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.97	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1716	1716	1863	1716	1716	1863	1716	1716	1863	1716
Adj Flow Rate, veh/h	41	103	41	110	87	164	41	325	105	120	414	54
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	207	154	146	268	204	60	978	746	158	1090	831
Arrive On Green	0.06	0.11	0.11	0.09	0.14	0.14	0.04	0.53	0.53	0.10	0.58	0.58
Sat Flow, veh/h	1634	1863	1387	1634	1863	1421	1634	1863	1420	1634	1863	1421
Grp Volume(v), veh/h	41	103	41	110	87	164	41	325	105	120	414	54
Grp Sat Flow(s),veh/h/ln	1634	1863	1387	1634	1863	1421	1634	1863	1420	1634	1863	1421
Q Serve(g_s), s	2.2	4.7	2.4	5.9	3.8	7.7	2.2	9.0	3.4	6.4	10.7	0.9
Cycle Q Clear(g_c), s	2.2	4.7	2.4	5.9	3.8	7.7	2.2	9.0	3.4	6.4	10.7	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	93	207	154	146	268	204	60	978	746	158	1090	831
V/C Ratio(X)	0.44	0.50	0.27	0.75	0.33	0.80	0.68	0.33	0.14	0.76	0.38	0.06
Avail Cap(c_a), veh/h	123	536	399	200	623	475	91	978	746	218	1090	831
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.1	37.7	36.7	40.0	34.6	22.0	42.8	12.3	11.0	39.6	10.0	3.1
Incr Delay (d2), s/veh	3.3	1.9	0.9	10.1	0.7	7.2	12.7	0.9	0.4	9.8	1.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.5	1.0	3.1	2.0	3.4	1.2	4.9	1.4	3.3	5.7	0.4
LnGrp Delay(d),s/veh	44.3	39.5	37.6	50.1	35.3	29.2	55.5	13.2	11.4	49.4	11.0	3.2
LnGrp LOS	D	D	D	D	D	C	E	B	B	D	B	A
Approach Vol, veh/h		185			361			471			588	
Approach Delay, s/veh		40.1			37.0			16.5			18.1	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	51.3	12.1	14.0	7.3	56.6	9.1	16.9
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	11.4	24.5	10.4	25.3	4.4	31.5	6.2	29.5
Max Q Clear Time (g_c+I1), s	8.4	11.0	7.9	6.7	4.2	12.7	4.2	9.7
Green Ext Time (p_c), s	0.1	2.9	0.1	0.5	0.0	3.2	0.1	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	24.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	95	38	101	80	156	38	306	97	125	402	55
Future Volume (veh/h)	39	95	38	101	80	156	38	306	97	125	402	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1716	1716	1863	1716	1716	1863	1716	1716	1863	1716
Adj Flow Rate, veh/h	42	103	41	110	87	170	41	333	105	136	437	60
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	62	223	167	146	320	245	60	942	718	175	1073	819
Arrive On Green	0.04	0.12	0.12	0.09	0.17	0.17	0.04	0.51	0.51	0.11	0.58	0.58
Sat Flow, veh/h	1634	1863	1391	1634	1863	1425	1634	1863	1420	1634	1863	1421
Grp Volume(v), veh/h	42	103	41	110	87	170	41	333	105	136	437	60
Grp Sat Flow(s),veh/h/ln	1634	1863	1391	1634	1863	1425	1634	1863	1420	1634	1863	1421
Q Serve(g_s), s	2.3	4.6	2.4	5.9	3.7	10.1	2.2	9.7	3.6	7.3	11.7	1.7
Cycle Q Clear(g_c), s	2.3	4.6	2.4	5.9	3.7	10.1	2.2	9.7	3.6	7.3	11.7	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	62	223	167	146	320	245	60	942	718	175	1073	819
V/C Ratio(X)	0.68	0.46	0.25	0.75	0.27	0.70	0.68	0.35	0.15	0.78	0.41	0.07
Avail Cap(c_a), veh/h	125	536	400	200	621	475	91	942	718	218	1073	819
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	36.9	35.9	40.0	32.4	35.1	42.8	13.4	11.9	39.1	10.6	8.4
Incr Delay (d2), s/veh	12.5	1.5	0.8	10.1	0.5	3.5	12.7	1.0	0.4	12.9	1.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.5	1.0	3.1	1.9	4.2	1.2	5.2	1.5	3.9	6.3	0.7
LnGrp Delay(d),s/veh	55.2	38.4	36.7	50.1	32.8	38.6	55.5	14.4	12.3	52.1	11.7	8.6
LnGrp LOS	E	D	D	D	C	D	E	B	B	D	B	A
Approach Vol, veh/h		186			367			479			633	
Approach Delay, s/veh		41.8			40.7			17.5			20.1	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	49.5	12.1	14.8	7.3	55.8	7.4	19.5
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	11.4	24.5	10.4	25.3	4.4	31.5	6.3	29.4
Max Q Clear Time (g_c+I1), s	9.3	11.7	7.9	6.6	4.2	13.7	4.3	12.1
Green Ext Time (p_c), s	0.1	3.0	0.1	1.4	0.0	3.3	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	26.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	141	56	150	119	224	104	815	264	256	888	116
Future Volume (veh/h)	56	141	56	150	119	224	104	815	264	256	888	116
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1716	1716	1863	1716	1716	1863	1716	1716	1863	1716
Adj Flow Rate, veh/h	61	153	61	163	129	243	113	886	287	278	965	126
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	94	230	172	150	294	224	109	950	724	231	1089	831
Arrive On Green	0.06	0.12	0.12	0.09	0.16	0.16	0.07	0.51	0.51	0.14	0.58	0.58
Sat Flow, veh/h	1634	1863	1392	1634	1863	1423	1634	1863	1420	1634	1863	1421
Grp Volume(v), veh/h	61	153	61	163	129	243	113	886	287	278	965	126
Grp Sat Flow(s),veh/h/ln	1634	1863	1392	1634	1863	1423	1634	1863	1420	1634	1863	1421
Q Serve(g_s), s	4.4	9.4	4.8	11.0	7.5	14.0	8.0	53.4	14.9	17.0	53.6	3.3
Cycle Q Clear(g_c), s	4.4	9.4	4.8	11.0	7.5	14.0	8.0	53.4	14.9	17.0	53.6	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	94	230	172	150	294	224	109	950	724	231	1089	831
V/C Ratio(X)	0.65	0.66	0.35	1.09	0.44	1.08	1.04	0.93	0.40	1.20	0.89	0.15
Avail Cap(c_a), veh/h	142	402	300	150	411	314	109	950	724	231	1089	831
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.4	50.2	48.2	54.5	45.7	27.7	56.0	27.5	18.1	51.5	21.5	5.2
Incr Delay (d2), s/veh	7.3	3.3	1.2	99.1	1.0	72.1	96.6	16.9	1.6	124.3	10.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	5.1	1.9	9.1	4.0	10.0	6.5	31.8	6.1	15.6	30.6	1.4
LnGrp Delay(d),s/veh	62.7	53.5	49.4	153.6	46.8	99.9	153.2	44.4	19.7	175.8	32.1	5.6
LnGrp LOS	E	D	D	F	D	F	F	D	B	F	C	A
Approach Vol, veh/h		275			535			1286			1369	
Approach Delay, s/veh		54.6			103.4			48.5			58.8	
Approach LOS		D			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	65.2	15.0	18.8	12.0	74.2	10.9	22.9
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	16.4	49.5	10.4	25.3	7.4	58.5	9.8	25.9
Max Q Clear Time (g_c+I1), s	19.0	55.4	13.0	11.4	10.0	55.6	6.4	16.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.8	0.0	2.4	0.3	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	61.5
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	141	56	150	119	229	104	822	264	271	909	121
Future Volume (veh/h)	57	141	56	150	119	229	104	822	264	271	909	121
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1716	1716	1863	1716	1716	1863	1716	1716	1863	1716
Adj Flow Rate, veh/h	62	153	61	163	129	249	113	893	287	295	988	132
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	85	228	170	212	372	285	95	866	660	245	1037	791
Arrive On Green	0.05	0.12	0.12	0.13	0.20	0.20	0.06	0.46	0.46	0.15	0.56	0.56
Sat Flow, veh/h	1634	1863	1391	1634	1863	1427	1634	1863	1419	1634	1863	1421
Grp Volume(v), veh/h	62	153	61	163	129	249	113	893	287	295	988	132
Grp Sat Flow(s),veh/h/ln	1634	1863	1391	1634	1863	1427	1634	1863	1419	1634	1863	1421
Q Serve(g_s), s	4.5	9.4	4.1	11.6	7.1	20.3	7.0	55.8	10.0	18.0	60.1	5.5
Cycle Q Clear(g_c), s	4.5	9.4	4.1	11.6	7.1	20.3	7.0	55.8	10.0	18.0	60.1	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	85	228	170	212	372	285	95	866	660	245	1037	791
V/C Ratio(X)	0.73	0.67	0.36	0.77	0.35	0.87	1.19	1.03	0.44	1.20	0.95	0.17
Avail Cap(c_a), veh/h	101	402	300	212	442	339	95	866	660	245	1037	791
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	50.4	34.6	50.5	41.3	46.6	56.5	32.1	8.1	51.0	25.1	13.0
Incr Delay (d2), s/veh	19.2	3.4	1.3	15.8	0.6	19.1	150.5	38.9	2.1	123.8	18.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	5.1	1.6	6.1	3.7	9.5	7.1	38.0	4.2	16.5	36.1	2.2
LnGrp Delay(d),s/veh	75.3	53.8	35.9	66.2	41.8	65.7	207.0	71.1	10.2	174.8	43.9	13.5
LnGrp LOS	E	D	D	E	D	E	F	F	B	F	D	B
Approach Vol, veh/h		276			541			1293			1415	
Approach Delay, s/veh		54.6			60.2			69.4			68.3	
Approach LOS		D			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	59.8	19.6	18.7	11.0	70.8	10.3	28.0
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	17.4	49.5	9.4	25.3	6.4	60.5	6.8	27.9
Max Q Clear Time (g_c+I1), s	20.0	57.8	13.6	11.4	9.0	62.1	6.5	22.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	66.4
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	141	56	150	119	229	104	822	264	271	909	121
Future Volume (veh/h)	57	141	56	150	119	229	104	822	264	271	909	121
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1716	1716	1863	1716	1716	1863	1716	1716	1863	1716
Adj Flow Rate, veh/h	62	153	61	163	129	249	113	893	287	295	988	132
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	85	228	170	212	372	285	95	1645	660	245	1037	791
Arrive On Green	0.05	0.12	0.12	0.13	0.20	0.20	0.06	0.46	0.46	0.15	0.56	0.56
Sat Flow, veh/h	1634	1863	1391	1634	1863	1427	1634	3539	1419	1634	1863	1421
Grp Volume(v), veh/h	62	153	61	163	129	249	113	893	287	295	988	132
Grp Sat Flow(s),veh/h/ln	1634	1863	1391	1634	1863	1427	1634	1770	1419	1634	1863	1421
Q Serve(g_s), s	4.5	9.4	4.1	11.6	7.1	20.3	7.0	21.7	10.0	18.0	60.1	5.5
Cycle Q Clear(g_c), s	4.5	9.4	4.1	11.6	7.1	20.3	7.0	21.7	10.0	18.0	60.1	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	85	228	170	212	372	285	95	1645	660	245	1037	791
V/C Ratio(X)	0.73	0.67	0.36	0.77	0.35	0.87	1.19	0.54	0.44	1.20	0.95	0.17
Avail Cap(c_a), veh/h	101	402	300	212	442	339	95	1645	660	245	1037	791
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	56.0	50.4	34.6	50.5	41.3	46.6	56.5	23.0	8.1	51.0	25.1	13.0
Incr Delay (d2), s/veh	19.2	3.4	1.3	15.8	0.6	19.1	150.5	1.3	2.1	121.7	17.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	5.1	1.6	6.1	3.7	9.5	7.1	10.8	4.2	16.4	35.8	2.2
LnGrp Delay(d),s/veh	75.3	53.8	35.9	66.2	41.8	65.7	207.0	24.3	10.2	172.7	42.8	13.4
LnGrp LOS	E	D	D	E	D	E	F	C	B	F	D	B
Approach Vol, veh/h		276			541			1293			1415	
Approach Delay, s/veh		54.6			60.2			37.1			67.2	
Approach LOS		D			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	59.8	19.6	18.7	11.0	70.8	10.3	28.0
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	17.4	49.5	9.4	25.3	6.4	60.5	6.8	27.9
Max Q Clear Time (g_c+I1), s	20.0	23.7	13.6	11.4	9.0	62.1	6.5	22.3
Green Ext Time (p_c), s	0.0	13.0	0.0	0.6	0.0	0.0	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	54.1
HCM 2010 LOS	D

Intersection 6
Newcomb St & Henderson Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	328	59	169	352	232	91	209	187	139	162	39
Future Volume (veh/h)	57	328	59	169	352	232	91	209	187	139	162	39
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1750	1716	1863	1716	1716	1863	1750	1716	1863	1750
Adj Flow Rate, veh/h	62	357	64	184	383	252	99	227	203	151	176	42
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	88	1151	204	218	864	666	134	348	295	182	631	146
Arrive On Green	0.05	0.38	0.38	0.13	0.46	0.46	0.08	0.19	0.19	0.11	0.22	0.22
Sat Flow, veh/h	1634	2996	531	1634	1863	1435	1634	1797	1525	1634	2832	656
Grp Volume(v), veh/h	62	209	212	184	383	252	99	223	207	151	108	110
Grp Sat Flow(s),veh/h/ln	1634	1770	1758	1634	1863	1435	1634	1770	1553	1634	1770	1719
Q Serve(g_s), s	3.4	7.4	7.6	9.9	12.5	10.3	5.3	10.5	11.2	8.1	4.5	4.8
Cycle Q Clear(g_c), s	3.4	7.4	7.6	9.9	12.5	10.3	5.3	10.5	11.2	8.1	4.5	4.8
Prop In Lane	1.00		0.30	1.00		1.00	1.00		0.98	1.00		0.38
Lane Grp Cap(c), veh/h	88	680	675	218	864	666	134	343	301	182	394	383
V/C Ratio(X)	0.71	0.31	0.31	0.84	0.44	0.38	0.74	0.65	0.69	0.83	0.27	0.29
Avail Cap(c_a), veh/h	114	680	675	218	864	666	207	564	495	182	537	521
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.84	0.84	0.84	1.00	1.00	1.00	0.99	0.99	0.99
Uniform Delay (d), s/veh	41.9	19.4	19.5	38.1	16.3	15.7	40.4	33.5	34.0	39.2	29.0	29.1
Incr Delay (d2), s/veh	12.8	1.2	1.2	21.7	1.4	1.4	7.7	2.1	2.8	26.5	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	3.8	3.9	5.8	6.7	4.3	2.7	5.3	5.0	5.0	2.3	2.3
LnGrp Delay(d),s/veh	54.7	20.5	20.7	59.8	17.7	17.1	48.1	35.6	36.8	65.7	29.3	29.6
LnGrp LOS	D	C	C	E	B	B	D	D	D	E	C	C
Approach Vol, veh/h		483			819			529			369	
Approach Delay, s/veh		25.0			26.9			38.4			44.3	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	21.4	16.0	38.6	11.4	24.0	8.8	45.8
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	9.4	28.1	11.4	22.7	10.8	26.7	5.7	28.4
Max Q Clear Time (g_c+I1), s	10.1	13.2	11.9	9.6	7.3	6.8	5.4	14.5
Green Ext Time (p_c), s	0.0	2.1	0.0	3.4	0.1	2.3	0.0	3.5

Intersection Summary	
HCM 2010 Ctrl Delay	32.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	344	63	169	378	260	97	235	187	155	177	39
Future Volume (veh/h)	57	344	63	169	378	260	97	235	187	155	177	39
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1750	1716	1863	1716	1716	1863	1750	1716	1863	1750
Adj Flow Rate, veh/h	62	374	68	184	411	283	105	255	203	168	192	42
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	87	1110	200	223	847	652	140	373	285	207	686	146
Arrive On Green	0.05	0.37	0.37	0.14	0.45	0.45	0.09	0.20	0.19	0.13	0.24	0.23
Sat Flow, veh/h	1634	2988	538	1634	1863	1435	1634	1894	1445	1634	2884	615
Grp Volume(v), veh/h	62	220	222	184	411	283	105	238	220	168	116	118
Grp Sat Flow(s),veh/h/ln	1634	1770	1757	1634	1863	1435	1634	1770	1569	1634	1770	1729
Q Serve(g_s), s	3.5	8.5	8.7	10.4	14.7	12.7	6.0	11.8	12.5	9.5	5.1	5.3
Cycle Q Clear(g_c), s	3.5	8.5	8.7	10.4	14.7	12.7	6.0	11.8	12.5	9.5	5.1	5.3
Prop In Lane	1.00		0.31	1.00		1.00	1.00		0.92	1.00		0.36
Lane Grp Cap(c), veh/h	87	657	653	223	847	652	140	349	309	207	421	411
V/C Ratio(X)	0.71	0.33	0.34	0.82	0.49	0.43	0.75	0.68	0.71	0.81	0.28	0.29
Avail Cap(c_a), veh/h	112	657	653	241	847	652	225	535	474	224	533	521
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00	0.99	0.99	0.99
Uniform Delay (d), s/veh	44.2	21.4	21.6	39.9	18.1	17.6	42.4	35.4	35.9	40.4	29.5	29.7
Incr Delay (d2), s/veh	13.8	1.4	1.4	17.3	1.8	1.9	7.7	2.3	3.0	18.6	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	4.4	4.5	5.8	7.9	5.4	3.0	6.0	5.7	5.4	2.5	2.6
LnGrp Delay(d),s/veh	58.1	22.8	23.0	57.2	19.9	19.5	50.1	37.7	38.9	59.0	29.9	30.1
LnGrp LOS	E	C	C	E	B	B	D	D	D	E	C	C
Approach Vol, veh/h		504			878			563			402	
Approach Delay, s/veh		27.2			27.6			40.5			42.1	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	22.7	17.0	39.3	12.2	26.6	9.1	47.2
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	12.4	28.1	13.4	22.7	12.5	28.0	5.9	30.2
Max Q Clear Time (g_c+I1), s	11.5	14.5	12.4	10.7	8.0	7.3	5.5	16.7
Green Ext Time (p_c), s	0.0	2.2	0.1	3.6	0.1	2.5	0.0	3.8

Intersection Summary	
HCM 2010 Ctrl Delay	33.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	442	88	251	474	345	175	402	359	281	328	79
Future Volume (veh/h)	85	442	88	251	474	345	175	402	359	281	328	79
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1750	1716	1863	1716	1716	1863	1750	1716	1863	1750
Adj Flow Rate, veh/h	92	480	96	273	515	375	190	437	390	305	357	86
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	106	651	129	274	605	465	230	480	421	305	895	213
Arrive On Green	0.06	0.22	0.22	0.17	0.32	0.32	0.14	0.27	0.27	0.19	0.32	0.31
Sat Flow, veh/h	1634	2932	583	1634	1863	1432	1634	1770	1553	1634	2820	670
Grp Volume(v), veh/h	92	288	288	273	515	375	190	437	390	305	222	221
Grp Sat Flow(s),veh/h/ln	1634	1770	1745	1634	1863	1432	1634	1770	1553	1634	1770	1720
Q Serve(g_s), s	5.9	15.9	16.1	17.5	27.1	14.9	11.9	25.1	25.7	19.6	10.3	10.6
Cycle Q Clear(g_c), s	5.9	15.9	16.1	17.5	27.1	14.9	11.9	25.1	25.7	19.6	10.3	10.6
Prop In Lane	1.00		0.33	1.00		1.00	1.00		1.00	1.00		0.39
Lane Grp Cap(c), veh/h	106	393	387	274	605	465	230	480	421	305	562	546
V/C Ratio(X)	0.87	0.73	0.74	1.00	0.85	0.81	0.83	0.91	0.93	1.00	0.40	0.40
Avail Cap(c_a), veh/h	106	393	387	274	605	465	338	484	424	305	562	546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.48	0.48	0.48	1.00	1.00	1.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	48.7	38.0	38.1	43.7	33.1	11.4	43.9	37.0	37.5	42.7	28.0	28.2
Incr Delay (d2), s/veh	49.1	11.6	12.1	36.6	7.3	7.1	10.4	21.1	26.1	51.0	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	9.0	9.1	10.7	15.1	6.8	6.0	15.1	14.0	13.1	5.1	5.1
LnGrp Delay(d),s/veh	97.7	49.5	50.3	80.3	40.4	18.5	54.3	58.2	63.6	93.7	28.4	28.6
LnGrp LOS	F	D	D	F	D	B	D	E	E	F	C	C
Approach Vol, veh/h		668			1163			1017			748	
Approach Delay, s/veh		56.5			42.7			59.5			55.1	
Approach LOS		E			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.6	32.5	21.6	27.3	18.8	37.3	10.8	38.1
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	19.0	28.1	17.0	22.5	21.1	26.0	6.2	33.3
Max Q Clear Time (g_c+I1), s	21.6	27.7	19.5	18.1	13.9	12.6	7.9	29.1
Green Ext Time (p_c), s	0.0	0.2	0.0	2.4	0.3	2.4	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	52.6
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	458	92	251	500	373	181	428	359	297	343	79
Future Volume (veh/h)	85	458	92	251	500	373	181	428	359	297	343	79
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1750	1716	1863	1716	1716	1863	1750	1716	1863	1750
Adj Flow Rate, veh/h	92	498	100	273	543	405	197	465	390	323	373	86
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	108	588	117	297	589	453	238	500	418	306	904	206
Arrive On Green	0.07	0.20	0.20	0.18	0.32	0.32	0.15	0.28	0.27	0.19	0.32	0.31
Sat Flow, veh/h	1634	2929	585	1634	1863	1432	1634	1813	1517	1634	2846	648
Grp Volume(v), veh/h	92	300	298	273	543	405	197	454	401	323	230	229
Grp Sat Flow(s),veh/h/ln	1634	1770	1744	1634	1863	1432	1634	1770	1560	1634	1770	1725
Q Serve(g_s), s	5.8	16.9	17.1	17.1	29.2	16.7	12.2	26.0	26.1	19.5	10.6	10.9
Cycle Q Clear(g_c), s	5.8	16.9	17.1	17.1	29.2	16.7	12.2	26.0	26.1	19.5	10.6	10.9
Prop In Lane	1.00		0.34	1.00		1.00	1.00		0.97	1.00		0.38
Lane Grp Cap(c), veh/h	108	356	350	297	589	453	238	488	430	306	562	548
V/C Ratio(X)	0.85	0.84	0.85	0.92	0.92	0.89	0.83	0.93	0.93	1.05	0.41	0.42
Avail Cap(c_a), veh/h	108	393	387	297	589	453	393	488	431	306	562	548
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.40	0.40	0.40	1.00	1.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	48.0	40.0	40.2	41.8	34.3	12.0	43.1	36.7	37.0	42.3	27.8	28.0
Incr Delay (d2), s/veh	43.4	14.2	15.3	16.5	10.9	10.9	7.2	24.5	27.1	65.7	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	9.6	9.8	9.0	16.7	7.9	5.9	16.0	14.5	14.4	5.2	5.2
LnGrp Delay(d),s/veh	91.4	54.2	55.4	58.3	45.2	23.0	50.4	61.1	64.1	107.9	28.3	28.5
LnGrp LOS	F	D	E	E	D	C	D	E	E	F	C	C
Approach Vol, veh/h		690			1221			1052			782	
Approach Delay, s/veh		59.7			40.8			60.2			61.3	
Approach LOS		E			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.5	32.7	22.9	24.9	19.2	37.0	10.9	36.9
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	18.9	28.1	16.1	22.5	24.4	22.6	6.3	32.3
Max Q Clear Time (g_c+I1), s	21.5	28.1	19.1	19.1	14.2	12.9	7.8	31.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.8	0.4	2.2	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	54.0
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	458	92	251	500	373	181	428	359	297	343	79
Future Volume (veh/h)	85	458	92	251	500	373	181	428	359	297	343	79
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1750	1716	1863	1716	1716	1863	1750	1716	1863	1750
Adj Flow Rate, veh/h	92	498	100	273	543	405	197	465	390	323	373	86
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	1068	213	98	679	522	98	559	468	98	878	200
Arrive On Green	0.06	0.36	0.36	0.06	0.36	0.36	0.06	0.31	0.30	0.06	0.31	0.30
Sat Flow, veh/h	1634	2931	585	1634	1863	1433	1634	1814	1518	1634	2846	648
Grp Volume(v), veh/h	92	300	298	273	543	405	197	454	401	323	230	229
Grp Sat Flow(s),veh/h/ln	1634	1770	1747	1634	1863	1433	1634	1770	1562	1634	1770	1724
Q Serve(g_s), s	4.3	10.0	10.1	4.6	20.1	19.3	4.6	18.4	18.5	4.6	8.0	8.2
Cycle Q Clear(g_c), s	4.3	10.0	10.1	4.6	20.1	19.3	4.6	18.4	18.5	4.6	8.0	8.2
Prop In Lane	1.00		0.34	1.00		1.00	1.00		0.97	1.00		0.38
Lane Grp Cap(c), veh/h	98	645	637	98	679	522	98	546	481	98	546	532
V/C Ratio(X)	0.94	0.46	0.47	2.80	0.80	0.78	2.02	0.83	0.83	3.31	0.42	0.43
Avail Cap(c_a), veh/h	98	645	637	98	679	522	98	660	582	98	546	532
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.17	0.17	0.17	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	36.1	18.7	18.8	36.2	22.0	21.7	36.2	24.8	25.1	36.2	21.2	21.3
Incr Delay (d2), s/veh	72.4	2.4	2.5	813.4	1.8	2.0	492.2	7.6	8.6	1062.5	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	5.3	5.3	24.1	10.6	7.8	15.4	10.1	9.1	30.9	4.0	4.0
LnGrp Delay(d),s/veh	108.5	21.1	21.3	849.6	23.7	23.7	528.4	32.3	33.7	1098.7	21.6	21.8
LnGrp LOS	F	C	C	F	C	C	F	C	C	F	C	C
Approach Vol, veh/h		690			1221			1052			782	
Approach Delay, s/veh		32.8			208.3			125.7			466.6	
Approach LOS		C			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	27.7	8.6	32.1	8.6	27.7	8.6	32.1
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	4.0	28.1	4.0	22.4	4.0	21.0	4.0	21.0
Max Q Clear Time (g_c+I1), s	6.6	20.5	6.6	12.1	6.6	10.2	6.3	22.1
Green Ext Time (p_c), s	0.0	2.2	0.0	4.7	0.0	4.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	206.7
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	315	83	84	185	144	86	255	93	151	264	55
Future Volume (veh/h)	91	315	83	84	185	144	86	255	93	151	264	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1750	1716	1863	1716	1716	1863	1750	1716	1863	1750
Adj Flow Rate, veh/h	99	342	90	91	201	157	93	277	101	164	287	60
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	133	1228	318	124	814	627	127	453	161	205	657	135
Arrive On Green	0.08	0.44	0.44	0.08	0.44	0.44	0.08	0.18	0.17	0.13	0.23	0.22
Sat Flow, veh/h	1634	2773	719	1634	1863	1434	1634	2544	904	1634	2905	597
Grp Volume(v), veh/h	99	216	216	91	201	157	93	190	188	164	173	174
Grp Sat Flow(s),veh/h/ln	1634	1770	1722	1634	1863	1434	1634	1770	1678	1634	1770	1732
Q Serve(g_s), s	5.3	7.0	7.2	4.9	6.1	6.2	5.0	8.9	9.3	8.8	7.5	7.8
Cycle Q Clear(g_c), s	5.3	7.0	7.2	4.9	6.1	6.2	5.0	8.9	9.3	8.8	7.5	7.8
Prop In Lane	1.00		0.42	1.00		1.00	1.00		0.54	1.00		0.34
Lane Grp Cap(c), veh/h	133	784	763	124	814	627	127	315	299	205	400	391
V/C Ratio(X)	0.74	0.28	0.28	0.74	0.25	0.25	0.73	0.60	0.63	0.80	0.43	0.45
Avail Cap(c_a), veh/h	163	784	763	145	814	627	202	564	535	236	602	589
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00	0.99	0.99	0.99
Uniform Delay (d), s/veh	40.4	15.9	16.0	40.7	16.0	16.0	40.6	34.1	34.4	38.3	29.9	30.1
Incr Delay (d2), s/veh	13.4	0.9	0.9	14.4	0.7	0.9	7.9	1.9	2.2	15.6	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	3.6	3.6	2.7	3.3	2.6	2.6	4.5	4.5	4.8	3.8	3.8
LnGrp Delay(d),s/veh	53.8	16.8	17.0	55.1	16.7	16.9	48.5	35.9	36.5	53.8	30.6	30.9
LnGrp LOS	D	B	B	E	B	B	D	D	D	D	C	C
Approach Vol, veh/h		531			449			471			511	
Approach Delay, s/veh		23.8			24.5			38.6			38.1	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.3	20.0	10.8	43.9	11.0	24.3	11.3	43.3
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	12.4	28.1	7.4	23.7	10.5	30.0	8.4	22.7
Max Q Clear Time (g_c+I1), s	10.8	11.3	6.9	9.2	7.0	9.8	7.3	8.2
Green Ext Time (p_c), s	0.1	2.4	0.0	2.6	0.1	2.5	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	31.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	339	89	84	193	152	88	263	93	175	287	55
Future Volume (veh/h)	91	339	89	84	193	152	88	263	93	175	287	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1750	1716	1863	1716	1716	1863	1750	1716	1863	1750
Adj Flow Rate, veh/h	99	368	97	91	210	165	96	286	101	190	312	60
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	133	1174	305	124	779	599	130	465	160	232	718	136
Arrive On Green	0.08	0.42	0.42	0.08	0.42	0.42	0.08	0.18	0.17	0.14	0.24	0.24
Sat Flow, veh/h	1634	2770	721	1634	1863	1434	1634	2567	885	1634	2952	559
Grp Volume(v), veh/h	99	233	232	91	210	165	96	195	192	190	185	187
Grp Sat Flow(s),veh/h/ln	1634	1770	1721	1634	1863	1434	1634	1770	1682	1634	1770	1741
Q Serve(g_s), s	5.3	7.9	8.1	4.9	6.7	6.8	5.2	9.1	9.5	10.2	8.0	8.2
Cycle Q Clear(g_c), s	5.3	7.9	8.1	4.9	6.7	6.8	5.2	9.1	9.5	10.2	8.0	8.2
Prop In Lane	1.00		0.42	1.00		1.00	1.00		0.53	1.00		0.32
Lane Grp Cap(c), veh/h	133	750	729	124	779	599	130	321	305	232	430	423
V/C Ratio(X)	0.74	0.31	0.32	0.74	0.27	0.28	0.74	0.61	0.63	0.82	0.43	0.44
Avail Cap(c_a), veh/h	151	750	729	143	779	599	205	564	536	261	625	615
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00	0.99	0.99	0.99
Uniform Delay (d), s/veh	40.4	17.2	17.4	40.7	17.2	17.2	40.5	33.9	34.2	37.5	28.8	29.0
Incr Delay (d2), s/veh	16.0	1.1	1.1	14.9	0.8	1.1	7.8	1.9	2.1	16.7	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	4.0	4.0	2.7	3.6	2.9	2.6	4.6	4.6	5.7	4.0	4.0
LnGrp Delay(d),s/veh	56.4	18.3	18.5	55.6	18.0	18.3	48.3	35.8	36.4	54.2	29.5	29.7
LnGrp LOS	E	B	B	E	B	B	D	D	D	D	C	C
Approach Vol, veh/h		564			466			483			562	
Approach Delay, s/veh		25.1			25.5			38.5			37.9	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.8	20.3	10.8	42.1	11.2	25.9	11.3	41.6
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	13.8	28.1	7.3	22.4	10.7	31.2	7.7	22.0
Max Q Clear Time (g_c+I1), s	12.2	11.5	6.9	10.1	7.2	10.2	7.3	8.8
Green Ext Time (p_c), s	0.1	2.5	0.0	2.6	0.1	2.6	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	31.8
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	424	123	125	249	214	165	490	179	306	535	111
Future Volume (veh/h)	135	424	123	125	249	214	165	490	179	306	535	111
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1750	1716	1863	1716	1716	1863	1750	1716	1863	1750
Adj Flow Rate, veh/h	147	461	134	136	271	233	179	533	195	333	582	121
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	751	216	152	505	388	378	629	229	359	688	143
Arrive On Green	0.10	0.28	0.27	0.03	0.09	0.09	0.23	0.25	0.24	0.22	0.24	0.23
Sat Flow, veh/h	1634	2699	778	1634	1863	1431	1634	2527	921	1634	2901	601
Grp Volume(v), veh/h	147	301	294	136	271	233	179	372	356	333	354	349
Grp Sat Flow(s),veh/h/ln	1634	1770	1708	1634	1863	1431	1634	1770	1678	1634	1770	1732
Q Serve(g_s), s	8.9	14.8	15.0	8.3	13.9	15.7	9.5	20.0	20.2	20.0	19.1	19.2
Cycle Q Clear(g_c), s	8.9	14.8	15.0	8.3	13.9	15.7	9.5	20.0	20.2	20.0	19.1	19.2
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.55	1.00		0.35
Lane Grp Cap(c), veh/h	163	492	475	152	505	388	378	440	418	359	420	411
V/C Ratio(X)	0.90	0.61	0.62	0.89	0.54	0.60	0.47	0.85	0.85	0.93	0.84	0.85
Avail Cap(c_a), veh/h	163	492	475	152	505	388	378	508	482	359	547	535
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	44.5	31.4	31.6	48.0	39.5	40.3	33.2	35.7	36.0	38.2	36.4	36.5
Incr Delay (d2), s/veh	42.7	5.6	6.0	41.1	3.7	6.1	0.9	11.2	12.3	27.9	8.5	9.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	8.0	7.9	5.5	7.7	6.9	4.4	11.1	10.8	11.8	10.3	10.2
LnGrp Delay(d),s/veh	87.3	37.0	37.6	89.1	43.2	46.5	34.1	47.0	48.2	66.1	44.9	45.6
LnGrp LOS	F	D	D	F	D	D	C	D	D	E	D	D
Approach Vol, veh/h		742			640			907			1036	
Approach Delay, s/veh		47.2			54.1			44.9			51.9	
Approach LOS		D			D			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.0	28.9	13.3	31.8	27.2	27.7	14.0	31.1				
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6				
Max Green Setting (Gmax), s	21.4	28.1	8.7	23.4	19.2	30.3	9.4	22.7				
Max Q Clear Time (g_c+I1), s	22.0	22.2	10.3	17.0	11.5	21.2	10.9	17.7				
Green Ext Time (p_c), s	0.0	1.6	0.0	2.4	2.3	1.9	0.0	2.1				

Intersection Summary

HCM 2010 Ctrl Delay 49.4

HCM 2010 LOS D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	448	129	125	257	222	167	498	179	330	558	111
Future Volume (veh/h)	135	448	129	125	257	222	167	498	179	330	558	111
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1750	1716	1863	1716	1716	1863	1750	1716	1863	1750
Adj Flow Rate, veh/h	147	487	140	136	279	241	182	541	195	359	607	121
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	787	225	120	522	401	223	678	243	327	968	192
Arrive On Green	0.08	0.29	0.28	0.07	0.28	0.28	0.14	0.27	0.26	0.20	0.33	0.32
Sat Flow, veh/h	1634	2706	773	1634	1863	1431	1634	2539	911	1634	2927	582
Grp Volume(v), veh/h	147	317	310	136	279	241	182	376	360	359	366	362
Grp Sat Flow(s),veh/h/ln	1634	1770	1709	1634	1863	1431	1634	1770	1681	1634	1770	1739
Q Serve(g_s), s	8.0	14.7	14.9	7.0	12.0	13.8	10.3	18.8	19.0	19.0	16.6	16.7
Cycle Q Clear(g_c), s	8.0	14.7	14.9	7.0	12.0	13.8	10.3	18.8	19.0	19.0	16.6	16.7
Prop In Lane	1.00		0.45	1.00		1.00	1.00		0.54	1.00		0.33
Lane Grp Cap(c), veh/h	138	515	497	120	522	401	223	473	449	327	585	575
V/C Ratio(X)	1.07	0.62	0.62	1.13	0.53	0.60	0.82	0.80	0.80	1.10	0.63	0.63
Avail Cap(c_a), veh/h	138	515	497	120	522	401	282	535	508	327	585	575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	43.5	29.1	29.3	44.0	28.9	29.6	39.9	32.4	32.6	38.0	26.8	27.0
Incr Delay (d2), s/veh	96.2	5.4	5.8	118.0	3.6	6.0	13.7	7.4	8.0	76.2	1.9	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	7.9	7.9	7.1	6.7	6.1	5.5	10.2	9.8	15.5	8.3	8.4
LnGrp Delay(d),s/veh	139.7	34.6	35.1	162.0	32.5	35.6	53.5	39.8	40.7	114.2	28.7	28.9
LnGrp LOS	F	C	D	F	C	D	D	D	D	F	C	C
Approach Vol, veh/h		774			656			918			1087	
Approach Delay, s/veh		54.7			60.5			42.9			57.0	
Approach LOS		D			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	29.4	11.0	31.6	17.0	35.4	12.0	30.6
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	18.4	28.1	6.4	23.7	15.8	30.7	7.4	22.7
Max Q Clear Time (g_c+I1), s	21.0	21.0	9.0	16.9	12.3	18.7	10.0	15.8
Green Ext Time (p_c), s	0.0	3.3	0.0	2.6	0.2	4.7	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	53.4
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	448	129	125	257	222	167	498	179	330	558	111
Future Volume (veh/h)	135	448	129	125	257	222	167	498	179	330	558	111
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1750	1716	1863	1716	1716	1863	1750	1716	1863	1750
Adj Flow Rate, veh/h	147	487	140	136	279	241	182	541	195	359	607	121
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	1042	297	98	717	552	98	731	263	98	843	168
Arrive On Green	0.06	0.38	0.38	0.06	0.38	0.38	0.06	0.29	0.28	0.06	0.29	0.28
Sat Flow, veh/h	1634	2707	773	1634	1863	1434	1634	2539	912	1634	2926	582
Grp Volume(v), veh/h	147	317	310	136	279	241	182	376	360	359	367	361
Grp Sat Flow(s),veh/h/ln	1634	1770	1711	1634	1863	1434	1634	1770	1681	1634	1770	1738
Q Serve(g_s), s	4.6	10.3	10.5	4.6	8.3	9.6	4.6	14.8	14.9	4.6	14.3	14.4
Cycle Q Clear(g_c), s	4.6	10.3	10.5	4.6	8.3	9.6	4.6	14.8	14.9	4.6	14.3	14.4
Prop In Lane	1.00		0.45	1.00		1.00	1.00		0.54	1.00		0.33
Lane Grp Cap(c), veh/h	98	681	658	98	717	552	98	510	484	98	510	501
V/C Ratio(X)	1.51	0.47	0.47	1.39	0.39	0.44	1.86	0.74	0.74	3.68	0.72	0.72
Avail Cap(c_a), veh/h	98	681	658	98	717	552	98	660	627	98	510	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.70	0.70	0.70	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	36.2	17.8	17.9	36.2	17.1	17.5	36.2	24.8	25.0	36.2	24.6	24.7
Incr Delay (d2), s/veh	273.4	2.3	2.4	214.8	1.1	1.8	425.4	3.2	3.5	1227.2	4.4	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	5.5	5.4	7.9	4.5	4.0	13.6	7.7	7.4	35.3	7.5	7.6
LnGrp Delay(d),s/veh	309.6	20.0	20.3	251.0	18.3	19.3	461.6	28.0	28.4	1263.4	29.0	29.3
LnGrp LOS	F	C	C	F	B	B	F	C	C	F	C	C
Approach Vol, veh/h		774			656			918			1087	
Approach Delay, s/veh		75.1			66.9			114.1			436.8	
Approach LOS		E			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	26.2	8.6	33.6	8.6	26.2	8.6	33.6
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	4.0	28.1	4.0	22.4	4.0	21.0	4.0	21.0
Max Q Clear Time (g_c+I1), s	6.6	16.9	6.6	12.5	6.6	16.4	6.6	11.6
Green Ext Time (p_c), s	0.0	3.9	0.0	3.3	0.0	2.5	0.0	3.2

Intersection Summary	
HCM 2010 Ctrl Delay	198.4
HCM 2010 LOS	F

Intersection 7
Prospect St & Henderson Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	514	90	188	525	226	123	192	117	252	188	100
Future Volume (veh/h)	188	514	90	188	525	226	123	192	117	252	188	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1716	1716	1863	1716	1716	1863	1750	1716	1863	1716
Adj Flow Rate, veh/h	204	559	98	204	571	246	134	209	127	274	204	109
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	2	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	180	1546	627	242	1681	682	114	353	204	294	344	260
Arrive On Green	0.11	0.44	0.44	0.15	0.48	0.48	0.07	0.16	0.16	0.09	0.18	0.18
Sat Flow, veh/h	1634	3539	1434	1634	3539	1435	1634	2140	1238	3268	1863	1404
Grp Volume(v), veh/h	204	559	98	204	571	246	134	171	165	274	204	109
Grp Sat Flow(s),veh/h/ln	1634	1770	1434	1634	1770	1435	1634	1770	1609	1634	1863	1404
Q Serve(g_s), s	11.0	10.6	4.1	12.2	10.1	10.9	7.0	8.9	9.6	8.3	10.0	6.9
Cycle Q Clear(g_c), s	11.0	10.6	4.1	12.2	10.1	10.9	7.0	8.9	9.6	8.3	10.0	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.77	1.00		1.00
Lane Grp Cap(c), veh/h	180	1546	627	242	1681	682	114	292	265	294	344	260
V/C Ratio(X)	1.13	0.36	0.16	0.84	0.34	0.36	1.17	0.59	0.62	0.93	0.59	0.42
Avail Cap(c_a), veh/h	180	1546	627	273	1681	682	114	549	499	294	615	463
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.5	18.8	17.0	41.4	16.4	16.6	46.5	38.6	39.1	45.2	37.3	36.0
Incr Delay (d2), s/veh	104.3	0.6	0.5	18.9	0.5	1.5	137.5	1.9	2.4	34.9	1.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	5.2	1.7	6.8	5.0	4.6	7.5	4.5	4.4	5.2	5.3	2.7
LnGrp Delay(d),s/veh	148.8	19.4	17.5	60.4	17.0	18.1	184.0	40.5	41.5	80.1	38.9	37.1
LnGrp LOS	F	B	B	E	B	B	F	D	D	F	D	D
Approach Vol, veh/h		861			1021			470			587	
Approach Delay, s/veh		49.9			25.9			81.7			57.8	
Approach LOS		D			C			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	20.5	18.8	47.7	11.0	22.5	15.0	51.5
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	8.4	30.4	16.1	26.7	6.4	32.4	10.4	32.4
Max Q Clear Time (g_c+I1), s	10.3	11.6	14.2	12.6	9.0	12.0	13.0	12.9
Green Ext Time (p_c), s	0.0	2.2	0.1	5.6	0.0	2.3	0.0	6.4

Intersection Summary	
HCM 2010 Ctrl Delay	48.2
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	191	530	98	188	552	226	137	192	117	252	188	104
Future Volume (veh/h)	191	530	98	188	552	226	137	192	117	252	188	104
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1716	1716	1863	1716	1716	1863	1750	1716	1863	1716
Adj Flow Rate, veh/h	208	576	107	204	600	246	149	209	127	274	204	113
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	2	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	445	1525	618	241	1082	438	157	347	201	351	323	243
Arrive On Green	0.27	0.43	0.43	0.15	0.31	0.31	0.10	0.16	0.16	0.11	0.17	0.17
Sat Flow, veh/h	1634	3539	1434	1634	3539	1432	1634	2140	1238	3268	1863	1402
Grp Volume(v), veh/h	208	576	107	204	600	246	149	171	165	274	204	113
Grp Sat Flow(s),veh/h/ln	1634	1770	1434	1634	1770	1432	1634	1770	1608	1634	1863	1402
Q Serve(g_s), s	11.1	11.6	4.8	12.8	14.9	10.9	9.5	9.4	10.1	8.6	10.7	4.3
Cycle Q Clear(g_c), s	11.1	11.6	4.8	12.8	14.9	10.9	9.5	9.4	10.1	8.6	10.7	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.77	1.00		1.00
Lane Grp Cap(c), veh/h	445	1525	618	241	1082	438	157	287	261	351	323	243
V/C Ratio(X)	0.47	0.38	0.17	0.85	0.55	0.56	0.95	0.60	0.63	0.78	0.63	0.46
Avail Cap(c_a), veh/h	445	1525	618	269	1082	438	157	524	476	373	585	441
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.8	20.3	18.4	43.6	30.5	15.8	47.2	40.8	41.3	45.7	40.3	12.4
Incr Delay (d2), s/veh	0.7	0.6	0.5	20.0	2.0	5.1	56.3	2.0	2.5	9.7	2.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	5.8	2.0	7.1	7.6	4.9	6.8	4.8	4.6	4.4	5.7	1.8
LnGrp Delay(d),s/veh	32.5	20.9	18.9	63.7	32.5	20.9	103.5	42.8	43.8	55.4	42.3	13.8
LnGrp LOS	C	C	B	E	C	C	F	D	D	E	D	B
Approach Vol, veh/h		891			1050			485			591	
Approach Delay, s/veh		23.4			35.9			61.8			42.9	
Approach LOS		C			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.3	21.0	19.5	49.2	14.1	22.2	32.6	36.1
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	11.4	30.5	16.7	28.0	9.5	32.4	13.2	31.5
Max Q Clear Time (g_c+I1), s	10.6	12.1	14.8	13.6	11.5	12.7	13.1	16.9
Green Ext Time (p_c), s	0.1	2.3	0.1	3.2	0.0	2.3	0.0	3.2

Intersection Summary	
HCM 2010 Ctrl Delay	37.7
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	279	764	134	279	780	336	183	285	174	374	279	149
Future Volume (veh/h)	279	764	134	279	780	336	183	285	174	374	279	149
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1716	1716	1863	1716	1716	1863	1750	1716	1863	1716
Adj Flow Rate, veh/h	303	830	146	303	848	365	199	310	189	407	303	162
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	2	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	294	1184	479	308	1213	491	207	419	249	477	404	306
Arrive On Green	0.18	0.33	0.33	0.19	0.34	0.34	0.13	0.20	0.19	0.15	0.22	0.22
Sat Flow, veh/h	1634	3539	1433	1634	3539	1433	1634	2120	1257	3268	1863	1408
Grp Volume(v), veh/h	303	830	146	303	848	365	199	257	242	407	303	162
Grp Sat Flow(s),veh/h/ln	1634	1770	1433	1634	1770	1433	1634	1770	1608	1634	1863	1408
Q Serve(g_s), s	21.6	24.5	9.1	22.2	24.8	27.0	14.5	16.4	17.1	14.6	18.2	12.2
Cycle Q Clear(g_c), s	21.6	24.5	9.1	22.2	24.8	27.0	14.5	16.4	17.1	14.6	18.2	12.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.78	1.00		1.00
Lane Grp Cap(c), veh/h	294	1184	479	308	1213	491	207	350	318	477	404	306
V/C Ratio(X)	1.03	0.70	0.30	0.98	0.70	0.74	0.96	0.74	0.76	0.85	0.75	0.53
Avail Cap(c_a), veh/h	294	1184	479	308	1213	491	207	448	407	520	532	402
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.50	0.50	0.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	34.7	29.6	48.5	34.1	34.8	52.1	45.2	45.7	50.0	43.9	41.6
Incr Delay (d2), s/veh	45.0	1.8	0.8	46.9	3.4	9.8	51.4	4.6	6.2	12.1	4.2	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.4	12.3	3.7	14.0	12.7	12.0	9.5	8.5	8.1	7.4	9.9	4.9
LnGrp Delay(d),s/veh	94.2	36.5	30.4	95.5	37.4	44.5	103.5	49.8	51.8	62.1	48.1	43.0
LnGrp LOS	F	D	C	F	D	D	F	D	D	E	D	D
Approach Vol, veh/h		1279			1516			698			872	
Approach Delay, s/veh		49.5			50.7			65.8			53.7	
Approach LOS		D			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.5	27.7	26.6	44.1	19.2	30.1	25.6	45.1
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	18.5	29.8	22.0	31.3	14.6	33.7	21.0	32.3
Max Q Clear Time (g_c+I1), s	16.6	19.1	24.2	26.5	16.5	20.2	23.6	29.0
Green Ext Time (p_c), s	0.4	2.9	0.0	3.7	0.0	3.2	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	53.4
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	282	780	142	279	807	336	197	285	174	374	279	153
Future Volume (veh/h)	282	780	142	279	807	336	197	285	174	374	279	153
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1716	1716	1863	1716	1716	1863	1750	1716	1863	1716
Adj Flow Rate, veh/h	307	848	154	303	877	365	214	310	189	407	303	166
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	2	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	300	1183	479	308	1201	486	212	419	249	477	399	301
Arrive On Green	0.18	0.33	0.33	0.19	0.34	0.34	0.13	0.20	0.19	0.15	0.21	0.21
Sat Flow, veh/h	1634	3539	1432	1634	3539	1433	1634	2120	1257	3268	1863	1407
Grp Volume(v), veh/h	307	848	154	303	877	365	214	257	242	407	303	166
Grp Sat Flow(s),veh/h/ln	1634	1770	1432	1634	1770	1433	1634	1770	1608	1634	1863	1407
Q Serve(g_s), s	22.0	25.2	9.6	22.2	26.1	27.1	15.6	16.4	17.1	14.6	18.3	12.6
Cycle Q Clear(g_c), s	22.0	25.2	9.6	22.2	26.1	27.1	15.6	16.4	17.1	14.6	18.3	12.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.78	1.00		1.00
Lane Grp Cap(c), veh/h	300	1183	479	308	1201	486	212	350	318	477	399	301
V/C Ratio(X)	1.02	0.72	0.32	0.98	0.73	0.75	1.01	0.73	0.76	0.85	0.76	0.55
Avail Cap(c_a), veh/h	300	1183	479	308	1201	486	212	450	409	520	528	399
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.38	0.38	0.38	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.0	35.0	29.8	48.5	34.8	35.1	52.2	45.2	45.7	50.0	44.3	42.0
Incr Delay (d2), s/veh	38.6	1.5	0.7	46.9	3.9	10.2	63.7	4.5	6.1	12.1	4.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.1	12.5	3.9	14.0	13.4	12.1	10.8	8.4	8.1	7.4	9.9	5.0
LnGrp Delay(d),s/veh	87.6	36.4	30.5	95.5	38.7	45.4	115.9	49.7	51.7	62.1	48.8	43.6
LnGrp LOS	F	D	C	F	D	D	F	D	D	E	D	D
Approach Vol, veh/h		1309			1545			713			876	
Approach Delay, s/veh		47.7			51.4			70.3			54.0	
Approach LOS		D			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.5	27.7	26.6	44.1	19.6	29.7	26.0	44.7
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	18.5	29.9	22.0	31.2	15.0	33.4	21.4	31.8
Max Q Clear Time (g_c+I1), s	16.6	19.1	24.2	27.2	17.6	20.3	24.0	29.1
Green Ext Time (p_c), s	0.4	2.9	0.0	3.2	0.0	3.2	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	53.9
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Computation does not support turning movement with Shared and Exclusive lanes.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	372	57	90	301	116	90	144	73	204	149	51
Future Volume (veh/h)	50	372	57	90	301	116	90	144	73	204	149	51
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1716	1716	1863	1716	1716	1863	1750	1716	1863	1716
Adj Flow Rate, veh/h	54	404	62	98	327	126	98	157	79	222	162	55
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	2	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	77	1851	751	132	1971	799	135	306	146	310	270	203
Arrive On Green	0.05	0.52	0.52	0.08	0.56	0.56	0.08	0.13	0.13	0.09	0.15	0.15
Sat Flow, veh/h	1634	3539	1436	1634	3539	1436	1634	2306	1097	3268	1863	1397
Grp Volume(v), veh/h	54	404	62	98	327	126	98	118	118	222	162	55
Grp Sat Flow(s),veh/h/ln	1634	1770	1436	1634	1770	1436	1634	1770	1633	1634	1863	1397
Q Serve(g_s), s	3.1	5.8	1.3	5.6	4.3	4.1	5.6	5.9	6.4	6.3	7.7	2.8
Cycle Q Clear(g_c), s	3.1	5.8	1.3	5.6	4.3	4.1	5.6	5.9	6.4	6.3	7.7	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	77	1851	751	132	1971	799	135	235	217	310	270	203
V/C Ratio(X)	0.70	0.22	0.08	0.74	0.17	0.16	0.73	0.50	0.54	0.72	0.60	0.27
Avail Cap(c_a), veh/h	86	1851	751	218	1971	799	138	563	519	378	651	488
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	12.2	4.4	42.7	10.3	10.2	42.5	38.3	38.7	41.7	38.0	25.0
Incr Delay (d2), s/veh	18.5	0.2	0.2	7.9	0.2	0.4	17.1	1.7	2.1	5.0	2.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	2.9	0.5	2.8	2.1	1.7	3.1	3.0	3.0	3.1	4.1	1.1
LnGrp Delay(d),s/veh	63.1	12.4	4.6	50.6	10.5	10.6	59.6	39.9	40.8	46.7	40.1	25.7
LnGrp LOS	E	B	A	D	B	B	E	D	D	D	D	C
Approach Vol, veh/h		520			551			334			439	
Approach Delay, s/veh		16.8			17.6			46.0			41.6	
Approach LOS		B			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	16.6	11.7	53.7	11.8	17.8	8.5	56.9
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	10.4	29.6	12.1	24.5	7.4	32.6	4.4	32.2
Max Q Clear Time (g_c+I1), s	8.3	8.4	7.6	7.8	7.6	9.7	5.1	6.3
Green Ext Time (p_c), s	0.2	1.1	0.1	3.5	0.0	0.7	0.0	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	28.3
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	396	69	90	309	116	94	144	73	204	149	52
Future Volume (veh/h)	55	396	69	90	309	116	94	144	73	204	149	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1716	1716	1863	1716	1716	1863	1750	1716	1863	1716
Adj Flow Rate, veh/h	60	430	75	98	336	126	102	157	79	222	162	57
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	2	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	85	1824	740	132	1927	782	135	326	155	308	284	213
Arrive On Green	0.05	0.52	0.52	0.08	0.54	0.54	0.08	0.14	0.13	0.09	0.15	0.15
Sat Flow, veh/h	1634	3539	1435	1634	3539	1436	1634	2306	1098	3268	1863	1399
Grp Volume(v), veh/h	60	430	75	98	336	126	102	118	118	222	162	57
Grp Sat Flow(s),veh/h/ln	1634	1770	1435	1634	1770	1436	1634	1770	1634	1634	1863	1399
Q Serve(g_s), s	3.4	6.4	2.5	5.6	4.5	4.2	5.8	5.8	6.3	6.3	7.7	3.4
Cycle Q Clear(g_c), s	3.4	6.4	2.5	5.6	4.5	4.2	5.8	5.8	6.3	6.3	7.7	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	85	1824	740	132	1927	782	135	250	231	308	284	213
V/C Ratio(X)	0.71	0.24	0.10	0.74	0.17	0.16	0.75	0.47	0.51	0.72	0.57	0.27
Avail Cap(c_a), veh/h	86	1824	740	218	1927	782	138	577	533	344	647	486
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.3	12.7	11.8	42.7	10.9	10.8	42.6	37.5	37.9	41.8	37.4	35.6
Incr Delay (d2), s/veh	20.9	0.3	0.2	7.9	0.2	0.4	20.4	1.4	1.7	6.4	1.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	3.2	1.1	2.8	2.2	1.8	3.4	3.0	3.0	3.1	4.1	1.4
LnGrp Delay(d),s/veh	65.2	13.0	12.0	50.6	11.1	11.2	63.0	38.9	39.7	48.2	39.2	36.2
LnGrp LOS	E	B	B	D	B	B	E	D	D	D	D	D
Approach Vol, veh/h		565			560			338			441	
Approach Delay, s/veh		18.4			18.0			46.5			43.3	
Approach LOS		B			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.9	17.4	11.7	53.0	11.9	18.5	8.9	55.7
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	9.4	30.4	12.1	24.7	7.4	32.4	4.4	32.4
Max Q Clear Time (g_c+I1), s	8.3	8.3	7.6	8.4	7.8	9.7	5.4	6.5
Green Ext Time (p_c), s	0.1	1.5	0.1	3.7	0.0	1.6	0.0	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	29.0
HCM 2010 LOS	C

Notes
User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	553	85	134	447	172	134	214	108	303	221	76
Future Volume (veh/h)	74	553	85	134	447	172	134	214	108	303	221	76
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1716	1716	1863	1716	1716	1863	1750	1716	1863	1716
Adj Flow Rate, veh/h	80	601	92	146	486	187	146	233	117	329	240	83
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	2	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	1515	614	183	1698	689	180	400	193	412	354	267
Arrive On Green	0.08	0.57	0.57	0.11	0.48	0.48	0.11	0.17	0.17	0.13	0.19	0.19
Sat Flow, veh/h	1634	3539	1434	1634	3539	1435	1634	2297	1109	3268	1863	1405
Grp Volume(v), veh/h	80	601	92	146	486	187	146	177	173	329	240	83
Grp Sat Flow(s),veh/h/ln	1634	1770	1434	1634	1770	1435	1634	1770	1636	1634	1863	1405
Q Serve(g_s), s	4.8	9.4	3.0	8.7	8.3	7.8	8.7	9.2	9.8	9.8	12.0	5.1
Cycle Q Clear(g_c), s	4.8	9.4	3.0	8.7	8.3	7.8	8.7	9.2	9.8	9.8	12.0	5.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.68	1.00		1.00
Lane Grp Cap(c), veh/h	98	1515	614	183	1698	689	180	308	285	412	354	267
V/C Ratio(X)	0.82	0.40	0.15	0.80	0.29	0.27	0.81	0.58	0.61	0.80	0.68	0.31
Avail Cap(c_a), veh/h	98	1515	614	206	1698	689	180	534	494	458	618	466
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.56	0.56	0.56	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.5	14.4	13.0	43.3	15.7	15.6	43.5	37.9	38.3	42.5	37.6	34.9
Incr Delay (d2), s/veh	24.9	0.4	0.3	17.8	0.4	1.0	23.8	1.7	2.1	8.8	2.3	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	4.7	1.2	4.8	4.2	3.3	5.1	4.6	4.6	4.9	6.4	2.0
LnGrp Delay(d),s/veh	70.4	14.8	13.3	61.1	16.1	16.5	67.3	39.6	40.4	51.3	39.9	35.5
LnGrp LOS	E	B	B	E	B	B	E	D	D	D	D	D
Approach Vol, veh/h		773			819			496			652	
Approach Delay, s/veh		20.4			24.2			48.1			45.1	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.6	21.4	15.2	46.8	15.0	23.0	10.0	52.0
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	13.4	29.6	12.0	26.6	10.4	32.6	5.4	33.2
Max Q Clear Time (g_c+I1), s	11.8	11.8	10.7	11.4	10.7	14.0	6.8	10.3
Green Ext Time (p_c), s	0.2	2.3	0.1	5.3	0.0	2.3	0.0	6.1

Intersection Summary	
HCM 2010 Ctrl Delay	32.4
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	577	97	134	455	172	138	214	108	303	221	77
Future Volume (veh/h)	79	577	97	134	455	172	138	214	108	303	221	77
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1716	1863	1716	1716	1863	1716	1716	1863	1750	1716	1863	1716
Adj Flow Rate, veh/h	86	627	105	146	495	187	150	233	117	329	240	84
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	2	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	116	1542	625	181	1685	683	185	398	192	417	349	263
Arrive On Green	0.07	0.44	0.44	0.11	0.48	0.48	0.11	0.17	0.17	0.13	0.19	0.19
Sat Flow, veh/h	1634	3539	1434	1634	3539	1435	1634	2297	1109	3268	1863	1404
Grp Volume(v), veh/h	86	627	105	146	495	187	150	177	173	329	240	84
Grp Sat Flow(s),veh/h/ln	1634	1770	1434	1634	1770	1435	1634	1770	1636	1634	1863	1404
Q Serve(g_s), s	5.4	12.8	4.7	9.2	8.9	8.2	9.4	9.7	10.3	10.3	12.6	5.4
Cycle Q Clear(g_c), s	5.4	12.8	4.7	9.2	8.9	8.2	9.4	9.7	10.3	10.3	12.6	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.68	1.00		1.00
Lane Grp Cap(c), veh/h	116	1542	625	181	1685	683	185	307	284	417	349	263
V/C Ratio(X)	0.74	0.41	0.17	0.81	0.29	0.27	0.81	0.58	0.61	0.79	0.69	0.32
Avail Cap(c_a), veh/h	135	1542	625	202	1685	683	205	509	470	535	607	457
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.42	0.42	0.42	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.9	20.3	18.0	45.6	16.8	16.6	45.4	39.9	40.3	44.4	39.8	36.9
Incr Delay (d2), s/veh	7.7	0.3	0.2	19.0	0.4	1.0	19.4	1.7	2.1	6.0	2.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	6.3	1.9	5.1	4.4	3.5	5.2	4.9	4.8	5.0	6.7	2.2
LnGrp Delay(d),s/veh	55.5	20.6	18.3	64.6	17.2	17.6	64.8	41.6	42.4	50.5	42.2	37.6
LnGrp LOS	E	C	B	E	B	B	E	D	D	D	D	D
Approach Vol, veh/h		818			828			500			653	
Approach Delay, s/veh		24.0			25.6			48.8			45.8	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.4	22.2	15.7	49.8	15.9	23.7	11.4	54.0
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	16.6	29.6	12.4	28.0	12.6	33.6	8.1	32.3
Max Q Clear Time (g_c+I1), s	12.3	12.3	11.2	14.8	11.4	14.6	7.4	10.9
Green Ext Time (p_c), s	0.5	2.3	0.0	5.2	0.0	2.3	0.0	6.3

Intersection Summary	
HCM 2010 Ctrl Delay	34.0
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

TCAG Model Runs


Pioneer
Westfield Ave
Prospect
Henderson Ave
Newcomb St

Vehicle Turn Movements

Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:
Ruettgers & Schuler Civil Engineers
1800 30th St, Ste 260
Bakersfield, CA 93301

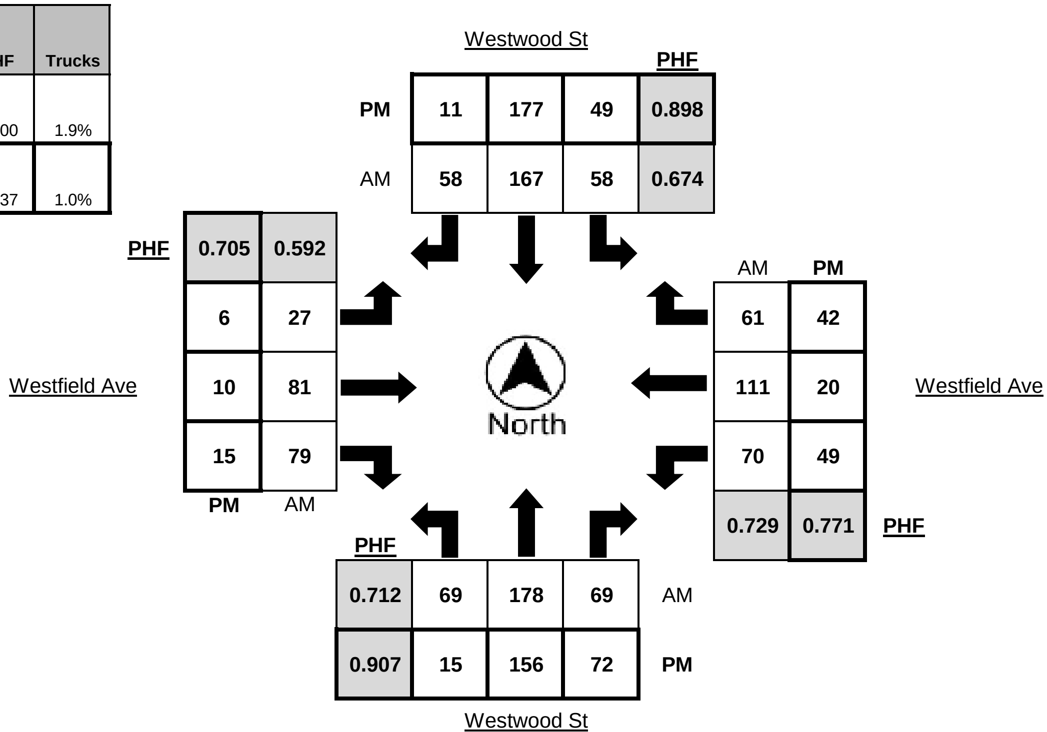
LOCATION	Westwood St @ Westfield Ave	**LATITUDE**	36.0876
COUNTY	Tulare	**LONGITUDE**	-119.0709
COLLECTION DATE	Thursday, May 13, 2021	**WEATHER**	Clear

	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	1	29	12	1	3	23	2	1	1	0	2	1	7	1	9	0
7:15 AM - 7:30 AM	4	47	7	2	3	26	10	1	5	3	7	0	8	11	13	0
7:30 AM - 7:45 AM	9	39	14	2	12	51	18	0	7	11	7	2	15	29	12	3
7:45 AM - 8:00 AM	42	41	28	0	28	58	19	5	11	24	33	1	21	45	17	2
8:00 AM - 8:15 AM	14	51	20	0	15	32	11	0	4	43	32	1	26	26	19	1
8:15 AM - 8:30 AM	5	33	7	1	4	30	3	1	1	3	8	0	10	7	9	2
8:30 AM - 8:45 AM	5	20	5	0	4	25	1	1	4	5	3	1	4	2	8	0
8:45 AM - 9:00 AM	9	29	4	0	4	36	1	1	0	2	14	0	5	2	3	0
TOTAL	**89**	**289**	**97**	**6**	**73**	**281**	**65**	**10**	**33**	**91**	**106**	**6**	**96**	**123**	**90**	**8**

	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	5	39	7	2	15	51	1	0	8	7	2	0	6	5	10	2
4:15 PM - 4:30 PM	8	45	10	0	20	51	3	1	4	1	3	0	8	2	8	0
4:30 PM - 4:45 PM	4	42	13	0	17	31	1	1	1	6	5	0	7	2	12	0
4:45 PM - 5:00 PM	8	40	10	2	19	45	1	0	3	4	3	0	6	1	7	1
5:00 PM - 5:15 PM	4	46	17	1	10	43	4	2	2	4	5	0	12	3	9	0
5:15 PM - 5:30 PM	0	38	19	0	18	44	4	2	1	3	0	0	7	3	8	0
5:30 PM - 5:45 PM	6	36	18	1	8	42	1	0	1	2	5	0	11	7	15	0
5:45 PM - 6:00 PM	5	36	18	0	13	48	2	0	2	1	5	0	19	7	10	0
TOTAL	**40**	**322**	**112**	**6**	**120**	**355**	**17**	**6**	**22**	**28**	**28**	**0**	**76**	**30**	**79**	**3**

	Northbound				Southbound				Eastbound				Westbound			
PEAK HOUR	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
7:15 AM - 8:15 AM	69	178	69	4	58	167	58	6	27	81	79	4	70	111	61	6
5:00 PM - 6:00 PM	15	156	72	2	49	177	11	4	6	10	15	0	49	20	42	0

	PHF	**Trucks**
AM	0.700	1.9%
PM	0.937	1.0%



Turning Movement Report

Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Prepared For:
Ruettgers & Schuler Civil Engineers
1800 30th St, Ste 260
Bakersfield, CA 93301

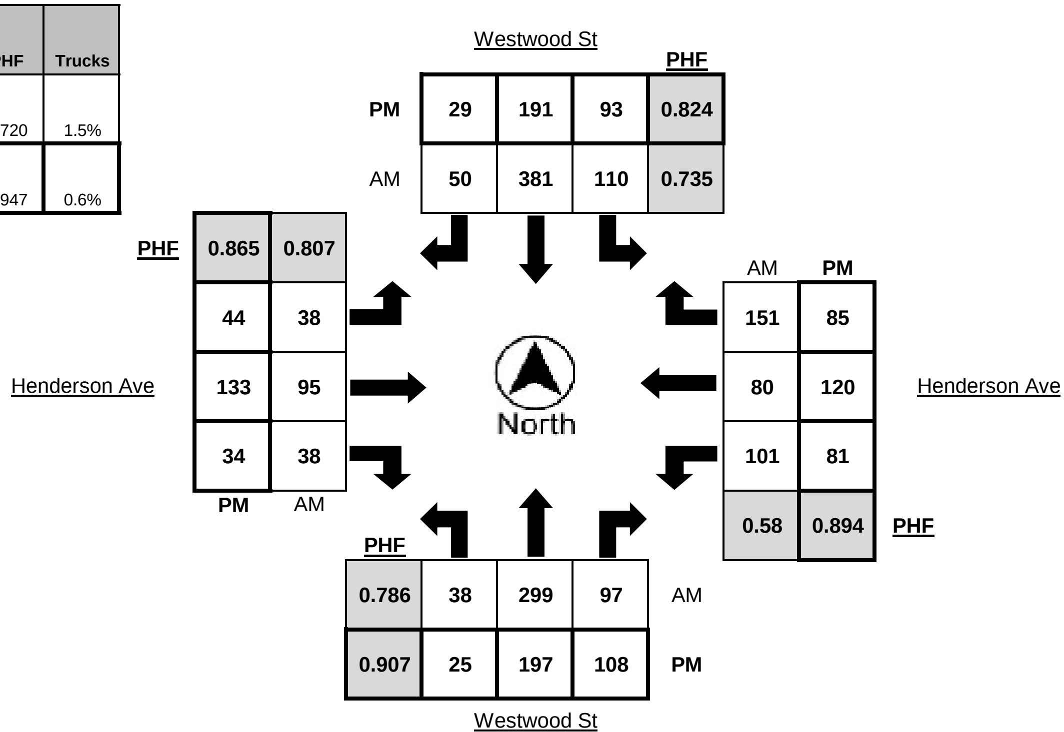
LOCATION	Westwood St @ Henderson Ave	**LATITUDE**	36.0803
COUNTY	Tulare	**LONGITUDE**	-119.0708
COLLECTION DATE	Thursday, May 13, 2021	**WEATHER**	Clear

	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	7	30	6	2	13	23	7	2	7	12	7	0	14	10	10	0
7:15 AM - 7:30 AM	14	39	11	2	10	41	11	0	6	12	10	0	15	21	24	1
7:30 AM - 7:45 AM	6	76	17	2	21	86	9	3	9	22	12	1	18	19	25	1
7:45 AM - 8:00 AM	5	100	28	0	33	137	14	4	11	30	12	2	42	24	77	1
8:00 AM - 8:15 AM	13	84	41	2	46	117	16	2	12	31	4	0	26	16	25	1
8:15 AM - 8:30 AM	1	32	14	3	15	44	11	2	3	12	2	0	7	13	19	1
8:30 AM - 8:45 AM	6	26	12	0	20	24	6	3	2	21	3	0	11	13	23	1
8:45 AM - 9:00 AM	3	34	19	1	17	47	8	1	5	23	3	1	14	17	14	2
TOTAL	**55**	**421**	**148**	**12**	**175**	**519**	**82**	**17**	**55**	**163**	**53**	**4**	**147**	**133**	**217**	**8**

	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	6	56	24	0	26	44	5	0	7	31	14	2	16	19	21	2
4:15 PM - 4:30 PM	11	44	31	1	25	41	8	1	10	39	6	0	16	25	31	0
4:30 PM - 4:45 PM	16	40	28	0	25	32	6	0	12	32	7	0	20	28	25	1
4:45 PM - 5:00 PM	14	39	40	3	13	43	5	0	8	26	8	0	18	30	27	1
5:00 PM - 5:15 PM	6	59	26	0	17	46	6	1	16	32	13	1	30	31	19	1
5:15 PM - 5:30 PM	7	41	30	1	24	46	6	1	9	38	4	0	13	37	22	0
5:30 PM - 5:45 PM	6	45	27	1	24	40	9	0	11	35	7	0	22	27	24	1
5:45 PM - 6:00 PM	6	52	25	0	28	59	8	0	8	28	10	0	16	25	20	0
TOTAL	**72**	**376**	**231**	**6**	**182**	**351**	**53**	**3**	**81**	**261**	**69**	**3**	**151**	**222**	**189**	**6**

	Northbound				Southbound				Eastbound				Westbound			
PEAK HOUR	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
7:15 AM - 8:15 AM	38	299	97	6	110	381	50	9	38	95	38	3	101	80	151	4
5:00 PM - 6:00 PM	25	197	108	2	93	191	29	2	44	133	34	1	81	120	85	2

	PHF	**Trucks**
AM	0.720	1.5%
PM	0.947	0.6%



Metro Traffic Data Inc.
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Hanford, CA 93230

800-975-6938 Phone/Fax
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Turning Movement Report

Prepared For:
Ruettgers & Schuler Civil Engineers
1800 30th St, Ste 260
Bakersfield, CA 93301

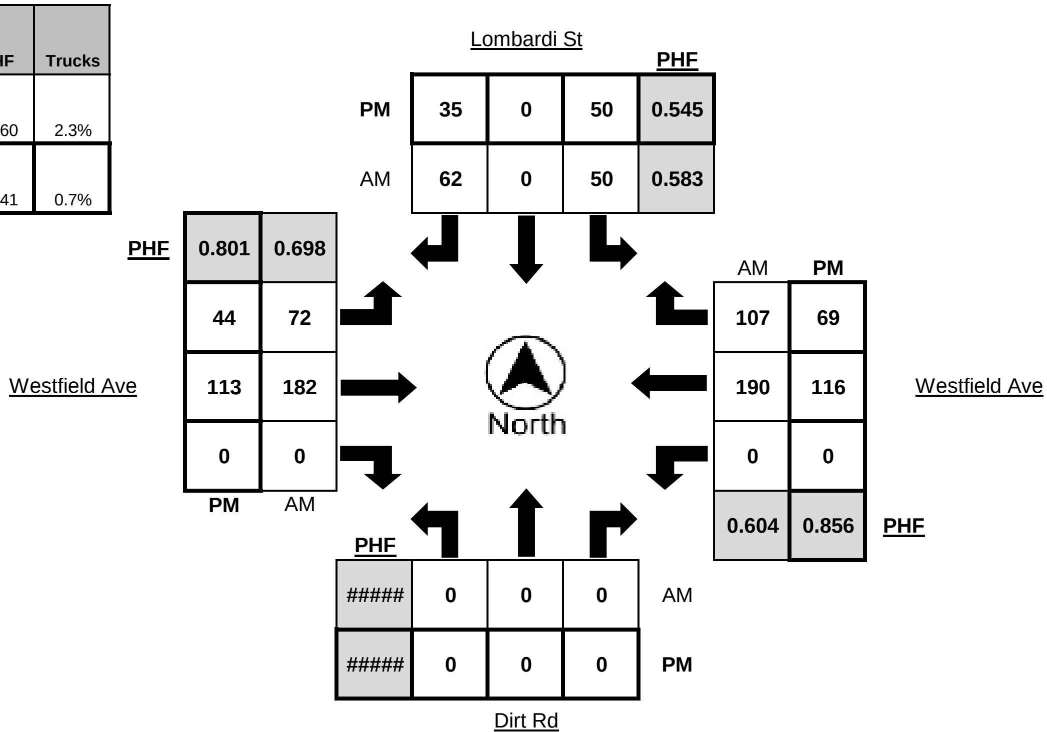
LOCATION	Westfield Ave @ Lombardi St	**LATITUDE**	36.0876
COUNTY	Tulare	**LONGITUDE**	-119.0664
COLLECTION DATE	Thursday, May 13, 2021	**WEATHER**	Clear

	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	0	0	0	0	1	0	1	0	5	11	0	0	1	15	8	0
7:15 AM - 7:30 AM	0	0	0	0	1	0	7	0	4	26	0	2	0	23	8	1
7:30 AM - 7:45 AM	0	0	0	0	5	0	9	2	15	32	0	2	0	51	22	2
7:45 AM - 8:00 AM	0	0	0	0	18	0	24	0	34	52	0	1	0	78	45	4
8:00 AM - 8:15 AM	0	0	0	0	26	0	22	0	19	72	0	1	0	38	32	0
8:15 AM - 8:30 AM	0	0	2	0	4	0	1	2	2	21	0	1	0	26	3	2
8:30 AM - 8:45 AM	0	0	3	0	0	0	2	0	1	13	0	0	0	13	2	0
8:45 AM - 9:00 AM	1	0	2	0	0	0	2	0	1	16	0	0	0	13	2	0
TOTAL	**1**	**0**	**7**	**0**	**55**	**0**	**68**	**4**	**81**	**243**	**0**	**7**	**1**	**257**	**122**	**9**

	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	0	0	0	0	2	0	2	0	1	29	0	1	0	20	0	0
4:15 PM - 4:30 PM	0	0	0	0	1	0	3	0	4	32	0	0	0	19	8	0
4:30 PM - 4:45 PM	0	0	0	0	2	0	3	0	2	37	0	1	1	22	4	0
4:45 PM - 5:00 PM	0	0	0	0	4	0	1	0	1	33	0	1	0	24	4	0
5:00 PM - 5:15 PM	0	0	0	0	3	0	4	0	9	30	0	2	0	29	9	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	1	0	11	38	0	0	0	22	18	0
5:30 PM - 5:45 PM	0	0	0	0	26	0	12	0	11	23	0	1	0	32	22	0
5:45 PM - 6:00 PM	0	0	0	0	21	0	18	0	13	22	0	0	0	33	20	0
TOTAL	**0**	**0**	**0**	**0**	**59**	**0**	**44**	**0**	**52**	**244**	**0**	**6**	**1**	**201**	**85**	**0**

	Northbound				Southbound				Eastbound				Westbound			
PEAK HOUR	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
7:15 AM - 8:15 AM	0	0	0	0	50	0	62	2	72	182	0	6	0	190	107	7
5:00 PM - 6:00 PM	0	0	0	0	50	0	35	0	44	113	0	3	0	116	69	0

	PHF	Trucks
AM	0.660	2.3%
PM	0.841	0.7%



Turning Movement Report

Metro Traffic Data Inc.
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Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Prepared For:
Ruettgers & Schuler Civil Engineers
1800 30th St, Ste 260
Bakersfield, CA 93301

LOCATION Westfield Ave @ Mathew St | **LATITUDE** 36.0876

COUNTY Tulare | **LONGITUDE** -119.0619

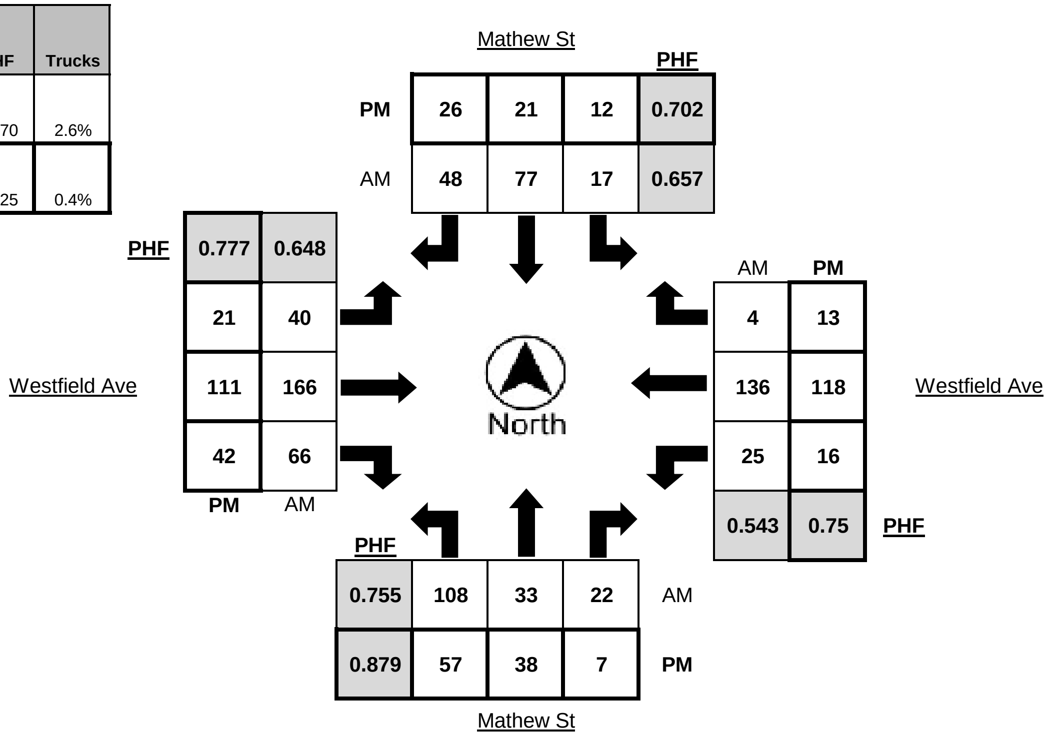
COLLECTION DATE Thursday, May 13, 2021 | **WEATHER** Clear

	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	12	1	2	0	0	5	5	0	1	7	2	0	2	5	0	0
7:15 AM - 7:30 AM	14	9	1	1	1	5	8	1	7	20	4	1	0	9	0	0
7:30 AM - 7:45 AM	24	4	4	5	3	22	17	2	17	23	3	2	5	31	2	1
7:45 AM - 8:00 AM	41	6	7	2	7	28	19	2	6	55	32	1	12	63	1	1
8:00 AM - 8:15 AM	29	14	10	0	6	22	4	0	10	68	27	0	8	33	1	0
8:15 AM - 8:30 AM	10	5	0	1	3	3	8	1	6	17	9	3	1	9	0	0
8:30 AM - 8:45 AM	10	4	1	0	1	2	6	0	9	3	6	5	4	7	2	0
8:45 AM - 9:00 AM	4	3	1	0	1	6	3	0	3	10	9	2	1	9	1	0
TOTAL	**144**	**46**	**26**	**9**	**22**	**93**	**70**	**6**	**59**	**203**	**92**	**14**	**33**	**166**	**7**	**2**

	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	8	5	4	0	1	9	2	0	5	23	7	1	3	17	1	0
4:15 PM - 4:30 PM	12	10	3	1	2	8	5	0	6	21	10	0	2	16	5	0
4:30 PM - 4:45 PM	14	9	1	1	1	7	7	0	10	23	14	1	2	17	4	1
4:45 PM - 5:00 PM	12	4	3	0	2	6	2	0	6	23	7	1	5	21	2	0
5:00 PM - 5:15 PM	10	13	6	0	1	3	6	0	7	18	9	1	3	20	5	0
5:15 PM - 5:30 PM	15	8	0	0	2	1	10	0	7	20	10	0	6	21	4	0
5:30 PM - 5:45 PM	18	8	0	0	5	8	2	0	5	39	12	1	5	42	2	0
5:45 PM - 6:00 PM	14	9	1	0	4	9	8	0	2	34	11	0	2	35	2	0
TOTAL	**103**	**66**	**18**	**2**	**18**	**51**	**42**	**0**	**48**	**201**	**80**	**5**	**28**	**189**	**25**	**1**

	Northbound				Southbound				Eastbound				Westbound			
PEAK HOUR	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
7:15 AM - 8:15 AM	108	33	22	8	17	77	48	5	40	166	66	4	25	136	4	2
5:00 PM - 6:00 PM	57	38	7	0	12	21	26	0	21	111	42	2	16	118	13	0

	PHF	Trucks
AM	0.670	2.6%
PM	0.825	0.4%



Metro Traffic Data Inc.

Turning Movement Report

Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Prepared For:
Ruettgers & Schuler Civil Engineers
1800 30th St, Ste 260
Bakersfield, CA 93301

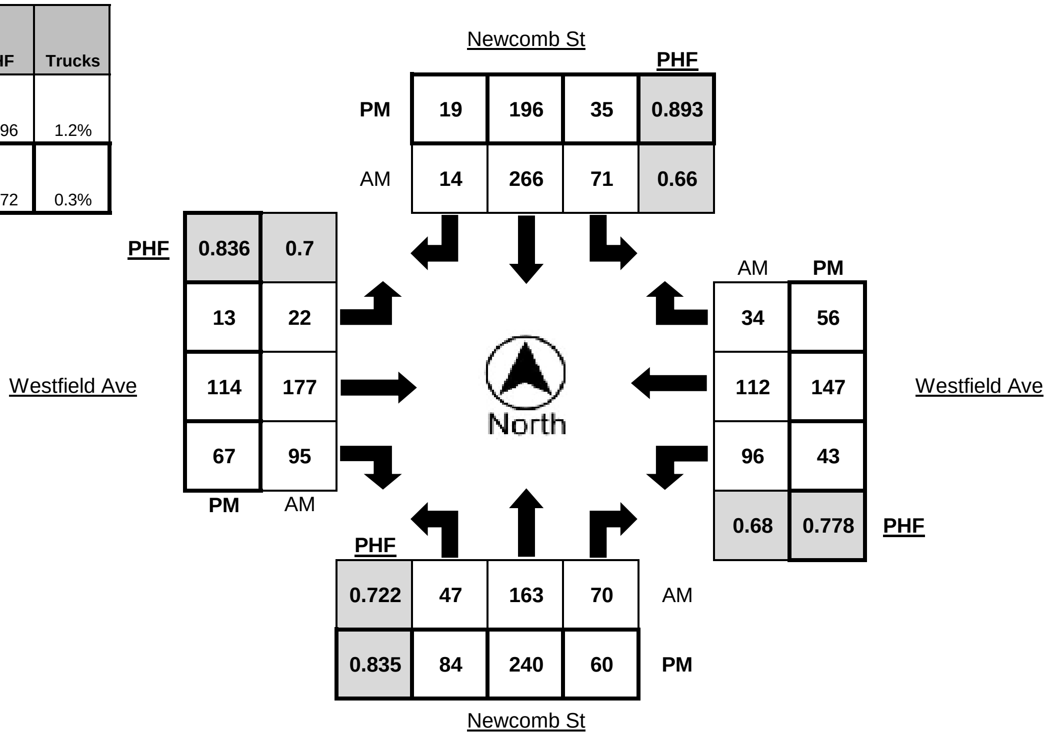
LOCATION Westfield Ave @ Newcomb St
LATITUDE 36.0876
COUNTY Tulare
LONGITUDE -119.0528
COLLECTION DATE Thursday, May 13, 2021
WEATHER Clear

	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	1	16	6	2	7	17	1	0	3	8	4	0	7	5	1	0
7:15 AM - 7:30 AM	4	26	8	0	13	35	1	2	2	26	12	0	10	9	9	1
7:30 AM - 7:45 AM	9	31	13	0	7	62	2	5	6	36	14	0	23	31	4	2
7:45 AM - 8:00 AM	20	48	24	0	30	100	3	0	9	55	41	0	33	45	11	1
8:00 AM - 8:15 AM	14	58	25	1	21	69	8	1	5	60	28	0	30	27	10	1
8:15 AM - 8:30 AM	6	23	9	0	8	31	0	0	3	15	10	1	5	9	9	0
8:30 AM - 8:45 AM	6	23	10	0	5	24	2	0	2	13	8	1	7	10	2	1
8:45 AM - 9:00 AM	5	19	6	0	14	27	1	0	2	14	11	0	8	12	8	0
TOTAL	**65**	**244**	**101**	**3**	**105**	**365**	**18**	**8**	**32**	**227**	**128**	**2**	**123**	**148**	**54**	**6**

	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	22	56	14	0	12	54	5	1	5	17	15	2	12	31	12	0
4:15 PM - 4:30 PM	11	40	7	0	14	54	4	0	4	29	10	1	11	25	12	0
4:30 PM - 4:45 PM	11	56	14	0	13	52	5	0	3	29	6	0	9	19	16	0
4:45 PM - 5:00 PM	14	49	13	0	12	33	8	1	7	26	17	1	18	38	17	0
5:00 PM - 5:15 PM	18	57	12	0	7	44	4	0	2	22	14	0	15	42	22	0
5:15 PM - 5:30 PM	25	54	16	0	12	43	6	1	7	25	14	0	6	28	13	0
5:30 PM - 5:45 PM	25	70	20	0	7	53	4	0	1	35	22	2	14	43	14	0
5:45 PM - 6:00 PM	16	59	12	0	9	56	5	0	3	32	17	0	8	34	7	0
TOTAL	**142**	**441**	**108**	**0**	**86**	**389**	**41**	**3**	**32**	**215**	**115**	**6**	**93**	**260**	**113**	**0**

	Northbound				Southbound				Eastbound				Westbound			
PEAK HOUR	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
7:15 AM - 8:15 AM	47	163	70	1	71	266	14	8	22	177	95	0	96	112	34	5
5:00 PM - 6:00 PM	84	240	60	0	35	196	19	1	13	114	67	2	43	147	56	0

	PHF	**Trucks**
AM	0.696	1.2%
PM	0.872	0.3%



Metro Traffic Data Inc.
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Turning Movement Report

Prepared For:
Ruettgers & Schuler Civil Engineers
1800 30th St, Ste 260
Bakersfield, CA 93301

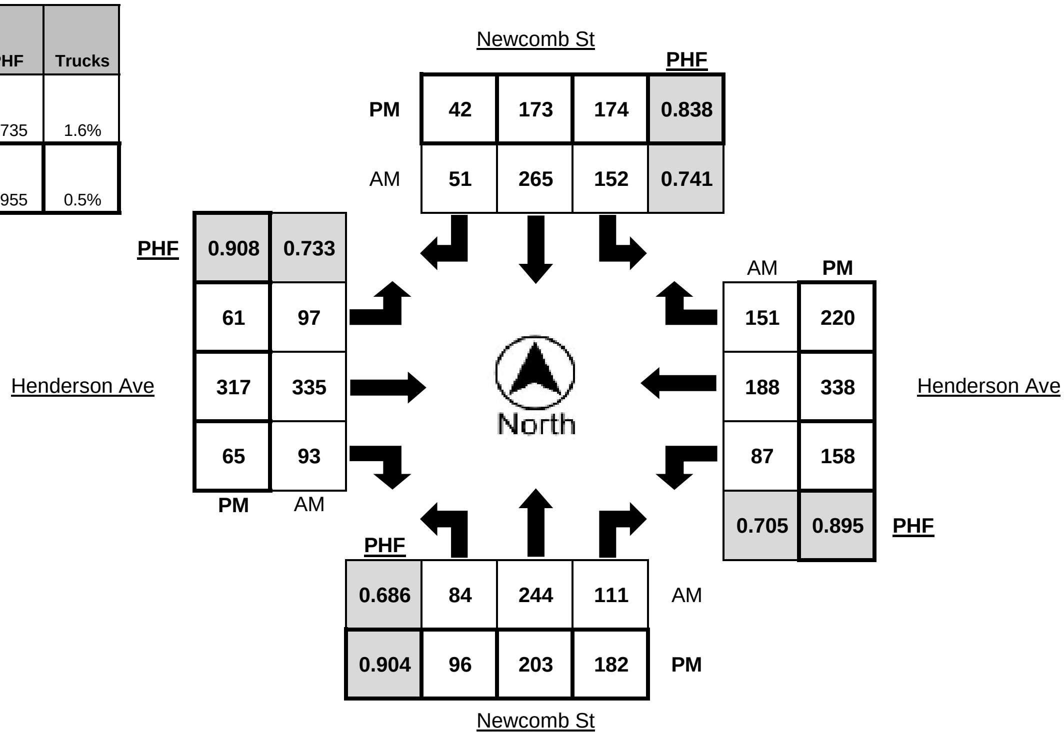
LOCATION	Henderson Ave @ Newcomb St	**LATITUDE**	36.0803
COUNTY	Tulare	**LONGITUDE**	-119.0529
COLLECTION DATE	Thursday, May 13, 2021	**WEATHER**	Clear

	Northbound				Southbound				Eastbound				Westbound			
Time	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks
7:00 AM - 7:15 AM	6	18	16	1	17	23	2	0	7	39	4	3	7	26	11	1
7:15 AM - 7:30 AM	10	36	12	0	18	33	9	2	3	41	7	0	11	38	19	1
7:30 AM - 7:45 AM	21	52	23	1	38	54	18	6	9	70	23	1	16	41	28	1
7:45 AM - 8:00 AM	43	88	29	0	47	82	13	1	45	105	29	2	25	71	55	3
8:00 AM - 8:15 AM	12	79	29	3	48	95	15	1	34	99	24	0	32	35	42	3
8:15 AM - 8:30 AM	8	25	30	0	19	34	5	2	9	61	17	3	14	41	26	2
8:30 AM - 8:45 AM	13	23	21	0	19	23	7	1	5	57	10	1	29	39	23	1
8:45 AM - 9:00 AM	13	19	26	0	23	25	7	0	7	47	18	0	19	33	17	2
TOTAL	**126**	**340**	**186**	**5**	**229**	**369**	**76**	**13**	**119**	**519**	**132**	**10**	**153**	**324**	**221**	**14**

	Northbound				Southbound				Eastbound				Westbound			
Time	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks
4:00 PM - 4:15 PM	19	49	49	1	50	43	7	1	17	84	18	1	36	75	71	0
4:15 PM - 4:30 PM	17	36	33	0	34	31	13	0	7	75	13	1	37	80	54	1
4:30 PM - 4:45 PM	28	60	40	1	31	51	6	1	5	86	8	11	34	77	39	0
4:45 PM - 5:00 PM	20	45	45	1	29	31	7	0	11	84	7	2	47	90	56	1
5:00 PM - 5:15 PM	24	56	53	0	40	35	7	0	16	75	19	1	40	101	59	2
5:15 PM - 5:30 PM	29	52	50	0	30	46	9	1	17	85	20	0	43	85	65	1
5:30 PM - 5:45 PM	18	56	39	0	40	50	16	2	13	84	13	2	39	76	52	0
5:45 PM - 6:00 PM	25	39	40	0	64	42	10	0	15	73	13	1	36	76	44	1
TOTAL	**180**	**393**	**349**	**3**	**318**	**329**	**75**	**5**	**101**	**646**	**111**	**19**	**312**	**660**	**440**	**6**

	Northbound				Southbound				Eastbound				Westbound			
PEAK HOUR	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks
7:30 AM - 8:30 AM	84	244	111	4	152	265	51	10	97	335	93	6	87	188	151	9
5:00 PM - 6:00 PM	96	203	182	0	174	173	42	3	61	317	65	4	158	338	220	4

	PHF	Trucks
AM	0.735	1.6%
PM	0.955	0.5%



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Turning Movement Report

Prepared For:
Ruettgers & Schuler Civil Engineers
1800 30th St, Ste 260
Bakersfield, CA 93301

LOCATION Henderson Ave @ Prospect St
LATITUDE 36.0804
COUNTY Tulare
LONGITUDE -119.0440
COLLECTION DATE Thursday, May 13, 2021
WEATHER Clear

	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	12	15	13	0	23	8	4	2	6	49	9	2	7	32	15	7
7:15 AM - 7:30 AM	21	20	12	5	31	22	4	4	8	53	4	0	12	42	22	3
7:30 AM - 7:45 AM	14	26	19	3	52	36	11	2	9	85	12	1	20	69	26	2
7:45 AM - 8:00 AM	30	51	20	6	57	47	21	6	16	122	20	2	30	107	29	6
8:00 AM - 8:15 AM	25	47	22	2	64	44	15	5	17	112	21	3	28	83	39	7
8:15 AM - 8:30 AM	18	27	22	4	39	22	15	0	18	101	13	3	28	64	39	7
8:30 AM - 8:45 AM	31	24	11	0	43	34	16	0	12	72	13	4	28	56	30	5
8:45 AM - 9:00 AM	16	24	10	2	38	39	16	2	25	68	20	0	31	53	36	9
TOTAL	**167**	**234**	**129**	**22**	**347**	**252**	**102**	**21**	**111**	**662**	**112**	**15**	**184**	**506**	**236**	**46**

	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	42	38	25	0	65	55	29	1	39	132	30	3	44	121	57	1
4:15 PM - 4:30 PM	34	45	27	0	66	51	26	1	44	133	21	2	45	146	63	1
4:30 PM - 4:45 PM	34	55	28	1	53	56	25	0	36	132	25	1	42	116	43	1
4:45 PM - 5:00 PM	38	52	25	1	71	55	33	0	51	125	25	2	53	132	61	2
5:00 PM - 5:15 PM	46	56	33	0	51	48	22	1	48	116	30	0	58	147	66	2
5:15 PM - 5:30 PM	26	51	26	1	68	41	22	2	52	133	25	0	39	123	47	1
5:30 PM - 5:45 PM	27	44	35	1	66	39	27	0	46	139	16	2	49	128	69	1
5:45 PM - 6:00 PM	24	41	23	0	67	60	29	1	42	126	19	1	42	127	44	1
TOTAL	**271**	**382**	**222**	**4**	**507**	**405**	**213**	**6**	**358**	**1036**	**191**	**11**	**372**	**1040**	**450**	**10**

	Northbound				Southbound				Eastbound				Westbound			
PEAK HOUR	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
7:30 AM - 8:30 AM	87	151	83	15	212	149	62	13	60	420	66	9	106	323	133	22
4:15 PM - 5:15 PM	152	208	113	2	241	210	106	2	179	506	101	5	198	541	233	6

	PHF	**Trucks**
AM	0.842	3.2%
PM	0.967	0.5%