DRAFT INITIAL STUDY and ENVIRONMENTAL CHECKLIST

FOR

LAKEPORT HUB/1842 TODD ROAD PROJECT

December 2021

Lead Agency:
City of Lakeport

Lead Agency Contact:
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City of Lakeport
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I. PROJECT SUMMARY

Date: December 2021

Project Title: Lakeport Hub / 1842 Todd Road

Lead Agency: City of Lakeport

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Applicant: Rahul Bhatt
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Location: The Lakeport Hub Project (project) is proposed within the City of Lakeport, located at 1842 Todd Road, APN 005-045-15. The property is approximately 15.5 acres with frontage along a portion of Todd Road to the west and frontage along a portion of Parallel Drive to the east. To the north of the property are fast food restaurants and gas stations located along Lakeport Boulevard. To the south of the property is the Hospice offices and residential properties. Residential properties exist to the west and south of the property along Todd Road. Directly east of Parallel Drive is State Highway 29 (see Figure 1).

Coastal Zone: No

Affected Parcel(s): Assessor's Parcel Number (APNs) 005-045-15, in addition to the City's right-of-way along the frontage of Todd Road and Parallel Drive

City of Lakeport General Plan Land Use Designation: Major Retail (see Figure 3)

City of Lakeport Zoning Designation: C-2, Major Retail (see Figure 4)

Anticipated Permits and Approvals:

1) City of Lakeport approval of the Draft Initial Study/Mitigated Negative Declaration
2) City of Lakeport Architectural and Design Review Permit
3) City of Lakeport Tentative Subdivision Map
4) City of Lakeport Use Permit
5) City of Lakeport Zoning Permit
6) US Army Corp of Engineers (USCOE) Wetland mitigation Plan

Tribal Cultural Resources: Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a

plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Peak & Associates, Inc., on behalf of the City of Lakeport, contacted the Native American Heritage Commission (NAHC), to request a Sacred Lands File (SLF) search for any resources present within the project area and to request the contact information for the representatives of the Native American Tribes associated with the area. In a letter response dated October 15, 2019, the NAHC indicated the SLF search returned a positive result and provided the contact information for five (5) local Tribal representatives. On October 15, 2019, in compliance with Assembly Bill (AB) 52, Peak & Associates sent a consultation letter to each of the five (5) Tribal representatives. The City of Lakeport has sent a "Request for Review" to both the Big Valley Band of Pomo Indians and the Scotts Valley Band of Pomo Indians in a letter dated October 7, 2019. The Tribe expresses interest in the project and looks forward to both consultation and the assignment of cultural monitor(s) during any and all ground disturbance undertaken by the project.

As of the date of this Initial Study, no additional responses or other communications have been received from the Native community regarding the project.

CEQA Requirement:
The proposed project is subject to the requirements of the California Environmental Quality Act (CEQA). The Lead Agency is the City of Lakeport. The purpose of this Initial Study (IS) is to provide a basis for determining whether to prepare an Environmental Impact Report (EIR) or a Negative Declaration. This IS is intended to satisfy the requirements of the CEQA (Public Resources Code, Div. 13, Sec. 21000-21177) and the State CEQA Guidelines (California Code of Regulations, Title 14, Sec 15000-15387).

CEQA encourages lead agencies and applicants to modify their projects to avoid significant adverse impacts (CEQA Section 20180(c)(2) and State CEQA Guidelines Section 15070(b) (2)).

Section 15063(d) of the State CEQA Guidelines states that an IS shall contain the following information in brief form:

1) A description of the project including the project location
2) Identification of the environmental setting
3) Identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to provide evidence to support the entries
4) Discussion of means to mitigate significant effects identified, if any
5) Examination of whether the project would be consistent with existing zoning, plans, and other applicable land use controls
6) The name of the person or persons who prepared and/or participated in the Initial Study

II. PROJECT DESCRIPTION

The Lakeport Hub Project (project) involves subdividing the 15.5-acre parcel to nine parcels for the purpose of developing a commercial center that would include a service station, six to eight restaurants, two retail buildings and a 70-room hotel. The commercial center would include on-site roadways accessing those commercial uses, with parking and landscaping distributed around the property, as well as serving each proposed parcel. Access to the commercial center would be primarily from Parallel Drive, with three driveways into the center along Parallel Drive. The commercial development would be phased in with the service station and a restaurant on Parcels A and B representing Phase One; the hotel and restaurant on Parcels G representing Phase Two; and the remaining commercial retail and restaurants on the remaining Parcels would represent Phase Three and would be developed as commercial tenants are found.

The project would require significant grading of the property, that would include modifying the existing topography of the property with no significant export of materials. All grading for the property, which includes all three phases of the project, would be completed at the time of the original grading permit for the property. The grading plan includes grading the southern portion of the property down, moving that material to the lower areas on the northern portion of the property. The grading would leave a steeper slope along the Todd Road frontage, as well as between some of the proposed parcels. The project would require the placement of a storm drain through the property to address historic offsite stormwater flows on the property. The project includes an onsite stormwater detention facility in the center of the property that provides onsite stormwater storage and recharge addressing the increase in impervious surfaces associated with the proposed improvements. The stormwater system located in the center of the property would serve all nine parcels. The project includes extending water and sewer systems to serve the project. Existing water lines along Todd Road and Parallel Drive are adequate to serve the project. The existing wastewater line along Parallel Drive provides connectivity for sewer lines serving the project.

The commercial center consists of nine parcels which includes the following development for each lot (also see Figure 2):

- Parcel A, 1.91 acres in size. Includes a 6,157 square foot building for a service station and drive thru restaurant, as well as a 4,700 square foot canopy for the service station. Parcel A is located on the northern portion of the property fronting on Parallel Drive.
- Parcel B, 1.31 acres in size. Includes a 2,900 square foot building for one drive thru restaurant and other retail space. Parcel B is located on the northeastern portion of the property fronting on Parallel Drive.
- Parcel C, 2.40 acres in size. Includes a 30,000 square foot building for multiple retail uses. Parcel C is located on the southwestern portion of the property fronting on Parallel Drive.
- Parcel D, .91 acres in size. Includes a 5,400 square foot building for a sit-down restaurant or retail space Parcel D is located on the south-central portion of the property.
- Parcel E, .59 acres in size. Includes a 2,000 square foot building for restaurant or retail space. Parcel E is located on the center portion of the property.
- Parcel F, 0.65 acres in size. Includes a 2,800 square foot building for a restaurant or retail space. Parcel F is located on the center portion of the property.
- Parcel G, 3.77 acres in size. Includes a 43,800 square foot building for a three story 70-unit hotel (39 feet in height), as well as a 3,000 square foot restaurant. Parcel G is located on the southeastern portion of the property fronting on Todd Road.

- Parcel H, 2.49 acres in size. Includes an 8,700 square foot building for retail or restaurant use. Parcel H is located on the central northern portion of the property fronting on Todd Road.
- Parcel I, 1.57 acres in size. Includes a 5,200 square foot building for retail uses, as well as a 2,300 square foot building for a restaurant. Parcel I is located on the northern portion of the property fronting on both Parallel Drive and Todd Road.

The commercial uses of the proposed properties listed above could change as long as they reflect the intent of the Major Retail in the General Plan and C-2, Major Retail zoning district. All buildings on the property, with the exception of the hotel, would be one story buildings, with the heights of those buildings ranging from 18 to 24 feet in height. The height of the hotel would be 39 feet in height. The project would provide parking for the commercial center with parking spaces distributed throughout the property. The proposed project would provide 397 parking spaces for the commercial center. Under the zoning ordinance based on the uses provided 388 parking spaces would be required for the proposed uses identified in the commercial center.

The project would include a sign permit that would include signage for each building and a freestanding sign along Parallel Drive. That freestanding sign would be 36 feet 10 inches in height, on an 8 to 10 foot high foundation. The freestanding sign would be located at either the southeastern entrance to the property from Parallel Drive or will be located at the highest point of the property on Parcel G.

In addition, the proposed improvements include private roadways through the property accessing the various commercial uses, pedestrian pathways throughout the commercial center. The properties also include a landscape plan for each of the commercial parcels. Utilities would also be directed thru the property to serve each commercial property. The project also includes right of way improvements to both Todd Road and Parallel Drive, which include curb, gutter and sidewalk.

III. PROJECT SETTING AND LOCATION

The Site is located within the northern portion of the City of Lakeport, approximately one-half mile west of Clear Lake and adjacent to and westerly of Highway 29. The site has been used for a walnut orchard; those walnut trees were recently removed. Other than the walnut orchard, the property is vacant. The project would occur on a 15.5-acre parcel. The Site is located between Todd Road and Parallel Drive, southerly of a number of fast food and service stations along Lakeport Boulevard (Hamburger Hill).

The topography of the site is varied, increasing from approximately 1,354 feet above mean sea level (amsl) in the southeastern portion of the Site, increasing to a maximum of approximately 1,416 feet amsl at an existing knoll in the western portion of the site.

The Site contains a wetland swale that runs from the northwestern corner of the property from Todd Road through the property to the southeastern corner of the property at Parallel Drive. The total area of the wetland swale is 0.33 acres and would represent waters of the United States as part of the wetland delineation.

IV. ENVIRONMENTAL EFFECTS

An environmental checklist follows this section and addresses all potential adverse effects resulting from the proposed project. No significant adverse effects are expected from any of the proposed activities.

V. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

An explanation for all checklist responses is included, and all answers consider the whole action involved and the following types of impacts: off-site and on-site; cumulative and project-level; indirect and direct; and construction and operational. The explanation of each issue identifies (a) the threshold of significance, if any, used to evaluate each question; and (b) the mitigation measure identified, if any, to reduce the impact to less than significance. All mitigation measures required for the project are provided in the Mitigation Monitoring and Reporting Program (MMRP) (see Appendix A).

In the checklist the following definitions are used:

"**Potentially Significant Impact**" means there is substantial evidence that an effect may be significant.

"**Potentially Significant Unless Mitigation Incorporated**" means the incorporation of one or more mitigation measures can reduce the effect from potentially significant to a less than significant level.

"**Less Than Significant Impact"** means that the effect is less than significant, and no mitigation is necessary to reduce the impact to a lesser level.

"**No Impact"** means that the effect does not apply to the proposed project, or clearly will not impact nor be impacted by the proposed project.

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

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

Signature

December 9, 2021
Date

Jennifer M. Byers, Community Development Director
Name and Title

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

Thresholds of Significance: The project would have a significant effect on aesthetics if it would have a substantial adverse effect on a scenic vista; substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway; substantially degrade the existing visual character or quality of public views of the site and its surroundings (if the project is in a non-urbanized area) or conflict with applicable zoning and other regulations governing scenic quality (if the project is in an urbanized area); or create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

DISCUSSION

The proposed project area is located in a predominately commercial area. Most of the land area in the project vicinity is designated as Major Retail under the City of Lakeport General Plan, with the land directly south and west being outside the City of Lakeport's Sphere of Influence (SOI). The land directly south is zoned SR-SC by Lake County and the parcels directly west are zoned SR (Suburban Reserve) and SR-SC-WW (Suburban Reserve-Scenic Combining District-Waterway Combining District) by Lake County. The project area does not contain important visual landmarks or areas of scenic interest. Overhead utility lines suspended from numerous vertical utility poles predominate within the field of view along with few eye-level signs to guide and control traffic throughout the area. State Route 29 can be seen along Parallel Drive. There are no General Plan designated scenic viewpoints in the project area.

IMPACT ANALYSIS

I.a-b) The proposed project is not located within a City- or County-mapped or designated scenic vista; within a scenic resources area; or along a state scenic highway (Caltrans, 2018). Therefore, the project would have no impact. Review of view corridors for the City of Lakeport defines those views that need protecting are those views of Clear Lake and Mount Konocti to the east. The location of the project west of State Route 29, would not impact those view corridors. The project will not substantially damage scenic resources within a State scenic highway. State Route 29 is located contiguous to the subject property, just over 100 feet feet east of the project but is not a designated scenic highway.

I.c) The project developments would consist of developing a commercial center, that includes subdividing a currently vacant property to nine parcels that would allow construction of a service station, restaurants, retail and a three-story hotel on those parcels, currently zoned C-2, Major Retail. The commercial center would be visible from State Route 29, however this property has been identified as commercial, as other

commercial properties lie directly to the north of the proposed project and residential uses on larger lots to the south and west. The project would require an Architectural and Design Review that would review the visual character of the structures and ensure the development is consistent with the City of Lakeport Development Standards. The development of the proposed project reflects an urbanized area, near rural residential land use. Most of the structures would be similar to one story commercial buildings located directly north of the proposed project, located at a higher elevation on top of a ridge. The exception to that would be the three-story hotel, 39-feet in height, which would be visible but would not represent a significant public view. The architectural design of all the structures related to the proposed project, includes a wide variety of building materials and colors that reduce the impact of structure, and reflects the natural area, further reducing the visual impact of the project. The proposed project does not conflict with any local zoning regulations and would not detract from the scenic quality of the area; therefore, the project would have no impact.

I.d) The proposed project would include wall mounted lighting on each of the buildings for those businesses, as well as lighting for the parking and walkways. The project includes a photometric plan that identifies illumination throughout the property. The photometric plan identifies the light posts throughout the property at 16 feet in height. The photometric plan identifies the luminaires of the lighting of the property would be contained within the property.

The City of Lakeport encourages incorporation of those principals identified by the Dark Sky Association, that reduces light pollution. The City has developed conditions of approval that implement those dark sky principles, that include reduction of offsite glare as well as requiring all outdoor lighting be downlit. With the implementation of that standard lighting condition, the project would not have substantial light or glare that would affect day or nighttime views in the area.

MITIGATION MEASURES

No mitigation required.

FINDINGS

The proposed project would have a **Less Than Significant Impact** on Aesthetics.

II. AGRICULTURE AND FORESTRY RESOURCES. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or 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 PRC 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 forestland to non-forest use?	☐	☐	☐	☒

Thresholds of Significance: The project would have a significant effect on agriculture and forestry resources if it would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (hereafter "farmland"), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural uses; conflict with existing zoning for agricultural use or a Williamson Act contract; conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g), timberland (as defined by PRC section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)); Result in the loss of forest land or conversion of forest land to non-forest use; or 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 forestland to non-forest use.

DISCUSSION

The project area is zoned Major Retail, while the site is currently undeveloped land. The site was previously utilized as a walnut tree orchard; however, those trees have since been removed. The agricultural practice of harvesting walnuts on the site has not taken place for several years. The site does not currently contain agricultural or forestry uses. The area immediately surrounding the Site is primarily designated as Major Retail (C-2), with the area containing a commercial area of fast-food restaurants and a service station "Hamburger Hill", as well as residential uses in the area. The property is identified as Major Retail under the City's 2025 General Plan (see Figure 3) and zoned as Major Retail (C-2) under the City's Zoning Ordinance (see Figure 4). The City's Zoning Map indicates that further to the east of the Site is State Highway 29 and zoned as Major Retail (C-2). Under the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP), the Site and surrounding area is designated as "Urban and Built-Up Land" (DOC, 2016). No portion of the Site is under a Williamson Act contract.

IMPACT ANALYSIS

II.a-c) The project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, conflict with existing zoning for agricultural use or forest land, timberland, or timberland zoned Timberland Production, or conflict with a Williamson Act, as no portion of the Site is designated, zoned, or

utilized for agricultural or forestry use. Additionally, no portion of the Site is designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance under the FMMP or currently under a Williamson Act contract. No impact would occur.

II.d) Although the removal of trees and/or other vegetation on the property shall be required as a result of the project, the project would not result in the loss of forest land or conversion of forest land to non-forest use, as the project area is not designated or zoned as timberland or forest land, but rather designated and zoned as Major Retail. A less than significant impact would occur.

II.e) The project would not 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 forestland to non-forest use. No such uses are located in the vicinity of the Site. No impact would occur.

MITIGATION MEASURES
No mitigation required.

FINDINGS
The proposed project would have a **Less Than Significant Impact** on Agricultural and Forestry Resources.

III. AIR QUALITY. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
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?	☐	☐	☒	☐

Thresholds of Significance: The project would have a significant effect on air quality if it would conflict with or obstruct implementation of applicable air quality plans; 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; expose sensitive receptors to substantial pollutant concentrations; or result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

DISCUSSION
The proposed project involves subdividing the 15.5-acre parcel to nine parcels for the purpose of developing a commercial center that would include a service station, six to eight restaurants, two retail buildings and a 70-room hotel. The commercial center would include on-site roadways accessing those commercial uses, with parking and landscaping distributed around the property, as well as serving each proposed parcel. The project would be located between Parallel Drive and Todd Road, west of State Highway 29. An Air Quality, Health Risk Analysis, Greenhouse Gas and Energy Technical Memorandum was performed on behalf of the proposed Project by Johnson, Johnson and Miller Air Quality Consulting Services (report date October 14,

2021). The following discussion and impact analysis are directly referencing this technical report (see Appendix B for full report and references).

Environmental Setting

The City of Lakeport lies within the Lake County Air Basin and the Lake County Air Quality Management District (LCAQMD) on the western shore of Clear Lake. Summers are typically warm and dry, with an average annual high temperature of 94 degrees Fahrenheit. Winters are cool and wet, with an average annual low temperature of 30 degrees Fahrenheit. The prevailing wind is westerly, with occasional strong gusty winds in winter. During autumn and winter, nighttime radiational cooling between storm periods often leads to formation of inversions and ground fog, especially in canyon basins near Lakeport. Inversions occur in conjunction with masses of very stable air, which tend to not move vertically and can become trapped in the lower and sheltered areas. Considerable air stagnation can occur if the inversion condition continues for several days. The inversion may persist until the onset of a Pacific storm. More intense heating at the surface in spring will generally initiate convection and good ventilation. In summer, region wide elevated inversions may be present, restricting the layer in which mixing and dilution of surface air may occur.

Criteria Air Pollutants

The Federal Clean Air Act (FCAA) establishes the framework for modern air pollution control. The FCAA, enacted in 1970 and amended in 1990, directs the United States Environmental Protection Agency (EPA) to establish ambient air quality standards. These standards are divided into primary and secondary standards. The primary standards are set to protect human health, and the secondary standards are set to protect environmental values, such as plant and animal life. The FCAA requires the EPA to set National Ambient Air Quality Standards for the six criteria air pollutants. These pollutants include particulate matter (PM), ground-level ozone, carbon monoxide (CO), sulfur oxides, nitrogen oxides, and lead.

Toxic Air Contaminants

A toxic air contaminant (TAC) is an air pollutant not included in the California Ambient Air Quality Standards, but TACs are considered hazardous to human health. Toxic air contaminants are defined by the California Air Resources Board (CARB) as those pollutants that, "may cause or contribute to an increase in deaths or in serious illness, or which may pose a present or potential hazard to human health."

The health effects associated with TACs are generally assessed locally rather than regionally. Toxic air contaminants can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage; TACs can also cause short-term acute effects such as eye watering, respiratory irritation, running nose, throat pain, and headaches. For evaluation purposes, TACs are separated into carcinogens and noncarcinogens. Carcinogens are assumed to have no safe threshold below which health impacts would not occur, and the cancer risk is expressed as excess cancer cases per one million exposed individuals (typically over a lifetime of exposure).

TACs of concern assessed in this analysis include DPM, benzene, and asbestos.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics.

Air Quality Standards

The Clean Air Act requires states to develop a general plan to attain and maintain the standards in all areas of the country and a specific plan to attain the standards for each area designated nonattainment. These plans, known as State Implementation Plans or SIPs, are developed by state and local air quality management agencies and submitted to EPA for approval.

The SIP for the State of California is administered by the CARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. California's SIP incorporates individual federal attainment plans for each regional air district. SIPs are prepared by the regional air district and sent to CARB to be approved and incorporated into the California SIP. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms.

The CARB also administers the California Ambient Air Quality Standards (CAAQS) for the 10 air pollutants designated in the California Clean Air Act. The 10 state air pollutants include the six federal criteria pollutant standards listed above as well as visibility-reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride. The federal and state ambient air quality standards are summarized in Table 1.

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/m^3)	—	Same as Primary Standard
	8 Hour	0.070 ppm (137 µg/m^3)	0.070ppm (137 µg/m^3)	
Respirable Particulate Matter	24 Hour	50 µg/m^3	150 µg/m3	Same as Primary Standard
	Annual Arithmetic Mean	20 µg/m^3	—	
Fine Particulate Matter	24 Hour	—	35 µg/m^3	Same as Primary Standard
	Annual Arithmetic Mean	12 µg/m^3	12 µg/m^3	
Carbon Monoxide	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	—
	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	—
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)	—	—
Nitrogen Dioxide	1 Hour	0.18 ppm (339 µg/m^3)	100 ppb (188 µg/m^3)	—
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	Same as Primary Standard

Pollutant	Averaging Time	California Standards	National Standards	
		Concentration	Primary	Secondary
Sulfur Dioxide	1 Hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)	—
	3 Hour	—	—	0.5 ppm (1300 µg/m^3)
	24 Hour	0.04 ppm (105 µg/m^3)	0.14 ppm (for certain areas)	—
	Annual Arithmetic Mean	—	0.030 ppm (for certain areas)	—
Lead	30-Day Average	1.5 µg/m^3	—	—
	Calendar Quarter	—	1.5 µg/m^3	Same as Primary Standard
	Rolling 3-Month Average	—	0.15 µg/m^3	
Visibility-Reducing Particles	8 Hour	See Footnote 1	No National Standards	
Sulfates	24 Hour	25 µg/m^3		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m^3)		

Notes:

1 - In 1989, the CARB 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.

µg/m3 =micrograms per cubic meter

CARB = California Air Resources Board

mg/m3 = milligrams per cubic meter

ppm = parts per million

Source: Bay Area Air Quality Management District (BAAQMD). 2017. Air Quality Standards and Attainment Status. Website: https://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status. Accessed October 8, 2021.

The local air quality can be evaluated by reviewing relevant air pollution concentrations near the project area. Table 2 summarizes 2018 through 2020 published monitoring data, which is the most recent 3-year period available. The table displays data from the Lakeport – S. Main Street Station (located approximately 0.99 miles southeast of the project site), which is the closest monitoring station to the project site with data available. The data shows that during the past few years, the project area has exceeded the standards for PM_{10} (state and national) and $PM_{2.5}$ (state and national). The data in the table reflects the concentration of the pollutants in the air, measured using air monitoring equipment. This differs from emissions, which are calculations of a pollutant being emitted over a certain period. No recent monitoring data for Lake County or the Lake County Air Basin was available for CO, NO_2, or SO_2. Generally, no monitoring is conducted for pollutants that are no longer likely to exceed ambient air quality standards.

Table 2: Air Quality Monitoring Summary

Air Pollutant	Averaging Time	Item	2018	2019	2020
Ozone[1]	1 Hour	Max 1 Hour (ppm)	0.080	0.060	0.080
		Days > State Standard (0.09 ppm)	0	0	0
	8 Hour	Max 8 Hour (ppm)	0.064	0.055	0.063
		Days > State Standard (0.07 ppm)	0	0	0
		Days > National Standard (0.075 ppm)	0	0	0
Carbon monoxide (CO)	8 Hour	Max 8 Hour (ppm)	ND	ND	ND
		Days > State Standard (9.0 ppm)	ND	ND	ND
		Days > National Standard (9 ppm)	ND	ND	ND
Nitrogen dioxide (NO_2)	Annual	Annual Average (ppm)	ND	ND	ND
	1 Hour	Max 1 Hour (ppm)	ND	ND	ND
		Days > State Standard (0.18 ppm)	ND	ND	ND
Sulfur dioxide (SO_2)	Annual	Annual Average (ppm)	ND	ND	ND
	24 Hour	Max 24 Hour (ppm)	ND	ND	ND
		Days > State Standard (0.04 ppm)	ND	ND	ND
Inhalable coarse particles (PM_{10})[1]	Annual	Annual Average (µg/m^3)	ID	10.1	19.8
	24 Hour	24 Hour (µg/m^3)	**180.1**	21.9	**126.6**
		Days > State Standard (50 µg/m^3)	ID	0.0	**23.0**
		Days > National Standard (150 µg/m^3)	**6.1**	0.0	0.0
Fine particulate matter ($PM_{2.5}$)[1]	Annual	Annual Average (µg/m^3)	9.3	3.1	9.3
	24 Hour	24 Hour (µg/m^3)	**157.9**	8.3	**111.5**
		Days > National Standard (35 µg/m^3)	**18.8**	0.0	**23.0**

Notes:
> = exceed
ppm = parts per million
µg/m^3 = micrograms per cubic meter
ID = insufficient data
ND = no data
max = maximum
Bold = exceedance
State Standard = California Ambient Air Quality Standard
National Standard = National Ambient Air Quality Standard
[1] Lakeport – S. Main Street Station
Source: California Air Resources Board (CARB). 2021. Lakeport – S. Main Street Station. Website: https://www.arb.ca.gov/adam/trends/trends1.php. Accessed October 7, 2021.

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

Table 3: Air Quality Index and Health Effects from Ozone

Air Quality Index/ 8-hour Ozone Concentration	Health Effects Description
AQI 51–100—Moderate	**Sensitive Groups:** Children and people with asthma are the groups most at risk.
Concentration 55–70 ppb	**Health Effects Statements:** Unusually sensitive individuals may experience respiratory symptoms.
	Cautionary Statements: Unusually sensitive people should consider limiting prolonged outdoor exertion.
AQI 101–150—Unhealthy for Sensitive Groups	**Sensitive Groups:** Children and people with asthma are the groups most at risk.
Concentration 71–85 ppb	**Health Effects Statements:** Increasing likelihood of respiratory symptoms and breathing discomfort in active children and adults and people with respiratory disease, such as asthma.
	Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should limit prolonged outdoor exertion.
AQI 151–200—Unhealthy	**Sensitive Groups:** Children and people with asthma are the groups most at risk.
Concentration 86–105 ppb	**Health Effects Statements:** Greater likelihood of respiratory symptoms and breathing difficulty in active children and adults and people with respiratory disease, such as asthma; possible respiratory effects in general population.
	Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else, especially children, should limit prolonged outdoor exertion.
AQI 201–300—Very Unhealthy	**Sensitive Groups:** Children and people with asthma are the groups most at risk.
Concentration 106–200 ppb	**Health Effects Statements:** Increasingly severe symptoms and impaired breathing likely in active children and adults and people with respiratory disease, such as asthma; increasing likelihood of respiratory effects in general population.
	Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should avoid all outdoor exertion; everyone else, especially children, should limit outdoor exertion.
Source: Air Now. 2016. AQI Calculator: AQI to Concentration. Website: https://www.airnow.gov/aqi/aqi-calculator/. Accessed October 7, 2021.	

The AQI for the 8-hour ozone standard is based on the current NAAQS of 70 parts per billion (ppb). Based on the AQI scale for the 8-hour ozone standard, the project area experienced zero days in the last three years that would have violated the 70-ppb standard. The highest reading was 63 ppb in 2018 and 2020 (AQI 77).

The only pollutant of concern is $PM_{2.5}$. An AQI of 100 or lower is considered moderate and would be triggered by a 24-hour average concentration of 12.1 to 35.4 µg/m^3. An AQI of 101 to 105 or 35.5-55.4 µg/m^3 is considered unhealthful for sensitive groups. When concentrations reach this amount, it is considered an exceedance of the federal $PM_{2.5}$ standard. The monitoring station nearest the project exceeded the standard on approximately 41.8 days in the three-year period spanning from 2018 to 2020. The highest number of exceedances was recorded in 2020 with 23.0 days over the standard. People with respiratory or heart disease, the elderly, and children are the groups most at risk. Unusually sensitive people should consider reducing prolonged or heavy exertion. The AQI of 151 to 200 is classified as unhealthy for everyone. This AQI classification is triggered when $PM_{2.5}$ concentration ranges from 55.4 to 150.4 µg/m^3. At this concentration, there is increasing likelihood of respiratory symptoms in sensitive individuals, aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease, and in the elderly. People with respiratory or heart disease, the elderly, and children should limit prolonged exertion. Everyone else should reduce prolonged or heavy exertion. The highest concentration recorded at the Lakeport – S. Main Street Station monitoring station in the last three years was 157.9 µg/m^3 (AQI 208) in 2018. At this concentration, there is significant aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; significant increase in respiratory effects in general population. Sensitive groups should avoid all physical activity outdoors, move activities indoors, or reschedule to a time when air quality is better. Everyone else should avoid prolonged or heavy exertion, consider moving activities indoors, or reschedule to a time when air quality is better. The relationship of the AQI to health effects in shown in Table 4.

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

Air Quality Index/ $PM_{2.5}$ Concentration	Health Effects Description
AQI 51–100—Moderate	**Sensitive Groups:** Some people who may be unusually sensitive to particle.
Concentration 12.1–35.4 µg/m^3	**Health Effects Statements:** Unusually sensitive people should consider reducing prolonged or heavy exertion.
	Cautionary Statements: Unusually sensitive people: Consider reducing prolonged or heavy exertion. Watch for symptoms such as coughing or shortness of breath. These are signs to take it easier.
AQI 101–150—Unhealthy for Sensitive Groups	**Sensitive Groups:** Sensitive groups include people with heart or lung disease, older adults, children, and teenagers.
Concentration 35.5–55.4 µg/m^2	**Health Effects Statements:** Increasing likelihood of respiratory symptoms in sensitive individuals, aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease, and the elderly.
	If you have heart disease: Symptoms such as palpitations, shortness of breath, or unusual fatigue may indicate a serious problem. If you have any of these, contact your health care provider.
AQI 151–200—Unhealthy	**Sensitive Groups:** Everyone
Concentration 55.5–150.4 µg/m^3	**Health Effects Statements:** Increased aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; increased respiratory effects in general population.

Air Quality Index/ $PM_{2.5}$ Concentration	Health Effects Description
	Cautionary Statements: Sensitive groups: Avoid prolonged or heavy exertion. Consider moving activities indoors or rescheduling. Everyone else: Reduce prolonged or heavy exertion. Take more breaks during outdoor activities.
AQI 201–300—Very Unhealthy	**Sensitive Groups:** Everyone
Concentration 150.5–250.4 µg/m^3	**Health Effects Statements:** Significant aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; significant increase in respiratory effects in general population.
	Cautionary Statements: Sensitive groups: Avoid all physical activity outdoors. Move activities indoors or reschedule to a time when air quality is better. Everyone else: Avoid prolonged or heavy exertion. Consider moving activities indoors or rescheduling to a time when air quality is better.
Source: Air Now. 2016. AQI Calculator: AQI to Concentration. Website: https://www.airnow.gov/aqi/aqi-calculator/. Accessed October 7, 2021.	

Federal and state air quality laws require identification of areas not meeting the ambient air quality standards. These areas must develop regional air quality plans to eventually attain the standards. Under both federal and state Clean Air Act, the Lake County Air Basin is in attainment for all ambient air quality standards; therefore, the LCAQMD has not been required to develop any regional air quality plans.

IMPACT ANALYSIS

III.a) Federal and state air quality laws require identification of areas not meeting the ambient air quality standards. These areas must develop regional air quality plans to eventually attain these standards. Under both federal and state Clean Air Act, the Lake County Air Basin is in attainment for all ambient air quality standards; therefore, the LCAQMD has not been required to develop any regional air quality plans. A main purpose of the LCAQMD is to enforce local, state, and federal air quality laws, rules and regulations in order to meet the Ambient Air Quality Standards and protect the public from air toxics through regulation. Projects that comply with applicable rules and regulations would not conflict or obstruct LCAQMD's ability to remain in attainment with air quality standards. There are currently no applicable air quality plans in the Lake County Air Basin for the proposed project to conflict with. Thus, the impact is considered less than significant.

III.b) Since the LCAQMD has no project-level thresholds of significance for the LCAB, thresholds of significance from the BAAQMD will be used for this analysis.

In developing thresholds of significance for air pollutants, the BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Project construction and operational impacts are assessed separately below.

Construction Emissions

Construction activities associated with development of the proposed project would include site preparation, grading, building construction, paving, and architectural coatings. Emissions from construction-related

activities are generally short-term in duration but may still cause adverse air quality impacts. During construction, fugitive dust would be generated from earth-moving activities. Exhaust emissions would also be generated from off-road construction equipment and construction-related vehicle trips. Emissions associated with construction of the proposed project are discussed below.

Construction Fugitive Dust (PM_{10} and $PM_{2.5}$)

During construction (grading), fugitive dust (PM_{10} and $PM_{2.5}$) would be generated from site grading and other earth-moving activities. Most of this fugitive dust will remain localized and be deposited near the project site. The BAAQMD does not have a quantitative threshold for fugitive dust. The BAAQMD's Air Quality Guidelines recommend that projects determine the significance for fugitive dust through application of best management practices (BMPs). Therefore, impacts related to fugitive dust from the construction of the proposed project would be potentially significant without the inclusions of sufficient dust control measures. Mitigation Measure (MM) AIR-2a requires the inclusion of BMPs recommended by the BAAQMD to reduce potential impacts related to fugitive dust emissions from use of construction equipment. With incorporation of MM AIR-2a, short-term construction impacts associated with violating an air quality standard or contributing substantially to an existing or projected air quality violation would be less than significant.

Construction Emissions: ROG, NO_X, PM_{10} (exhaust), $PM_{2.5}$ (exhaust)

Table 8 provides the construction emissions estimate for the proposed project. Please refer to the Modeling Parameters and Assumptions section of this technical memorandum for details regarding assumptions used to estimate construction emissions. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required pursuant to CEQA guidelines. The project will be built out over multiple phases, with each phase becoming operational after construction of the corresponding phase is completed. The construction emissions in each phase and each year are well below the recommended thresholds of significance. Therefore, the emissions from construction would be less than significant.

Table 5: Construction Annual and Daily Average Emissions (Unmitigated Average Daily Rate)

	Air Pollutants			
Parameter	**ROG**	**NO_X**	**PM_{10} (Exhaust)**	**$PM_{2.5}$ (Exhaust)**
Phase 1 (2022)	0.45	2.16	0.11	0.10
Phase 2 (2023)	1.50	2.13	0.09	0.09
Phase 3 (2023)	0.07	0.56	0.02	0.02
Phase 3 (2024)	0.92	1.92	0.07	0.07
Phases 1 – 3 (2022-2024)				
Total Project Construction Emissions (tons/year)	*2.94*	*6.77*	*0.30*	*0.28*
Total Emissions (pounds/year)	5,883	13,549	590	554
Average Daily Emissions (pounds/day)[1]	9.37	21.57	0.94	0.88

Parameter	Air Pollutants			
	ROG	NO_X	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)
Significance Threshold (pounds/day)	**54**	**54**	**82**	**54**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**

Notes:
[1] Calculated by dividing the total number of pounds by the total 628 working days of construction for the entire construction period.
Calculations use unrounded numbers.
lbs = pounds
NO_X = oxides of nitrogen
PM_{10} = particulate matter 10 microns in diameter
$PM_{2.5}$ = particulate matter 2.5 microns in diameter
ROG = reactive organic gases
Source: CalEEMod Output (Attachment A).

Operational Emissions

As previously discussed, the pollutants of concern include ROG, NO_X, PM_{10}, and $PM_{2.5}$. Full buildout of the project is anticipated to occur in 2024, immediately following the earliest anticipated completion of all phases of construction. Emissions were assessed for full buildout operations in the 2024 operational year. The 2024 operational year was chosen as it would be the best representation of the project as it is the year the project will become fully operational, thus generating the full amount of expected operational activity. The BAAQMD Criteria Air Pollutant Significance thresholds were used to determine impacts. Operational annual and daily emissions are shown in Table 6 and Table 7, respectively.

Table 6: Operational Annual Emissions for Full Buildout (Unmitigated)

Emissions Source	Tons per Year			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	0.72	0.00	0.00	0.00
Energy	0.02	0.15	0.01	0.01
Mobile (Motor Vehicles)	4.80	4.14	2.88	0.80
Waste	0.00	0.00	0.00	0.00
Water	0.00	0.00	0.00	0.00
Total Project Annual Emissions	**5.54**	**4.29**	**2.89**	**0.81**
Thresholds of Significance	**10**	**10**	**15**	**10**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**

Notes:
NO_X = oxides of nitrogen
$PM_{2.5}$ = particulate matter 2.5 microns or less in diameter
PM_{10} = particulate matter 10 microns or less in diameter
ROG = reactive organic gases
Source: CalEEMod Output (Attachment A).

Table 1: Operational Average Daily Emissions (Unmitigated)

Emissions Source	Tons per Year			
	ROG	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Total Project Annual Emissions[1] (tons/year)	5.54	4.29	2.89	0.81
Total Project Annual Emissions[2] (lbs/year)	11,073	8,590	5,776	1,618
Average Daily Emissions[3] (lbs/day)	**30.34**	**23.53**	**15.83**	**4.43**
Average Daily Emission Thresholds (lbs/day)	**54**	**54**	**82**	**54**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**

Notes:
[1] Tons per year are shown in 6.
[2] Pounds per year were calculated using the unrounded annual project operational emissions.
[3] The average daily operational emissions were estimated based on the total annual emissions divided by 365 days.
lbs = pounds
NO_X = oxides of nitrogen
$PM_{2.5}$ = particulate matter 2.5 microns or less in diameter
PM_{10} = particulate matter 10 microns or less in diameter
ROG = reactive organic gases
Source: CalEEMod Output (Attachment A).

As shown in Table 6 and Table 7, the proposed project would not result in net operational-related air pollutants or precursors that would exceed the applicable thresholds of significance. Therefore, project operations would not be considered to have the potential to generate a significant quantity of air pollutants; long-term operational impacts associated with the project's criteria pollutant emissions would be less than significant. To further reduce potential impacts, Mitigation Measure AIR-1 shall be implemented.

MITIGATION MEASURES

MM AIR-1 During construction activities, the following Best Management Practices (BMPs) shall be implemented to control dust:

- Exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks shall be paved as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne

toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- A publicly visible sign shall be posted with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours of a complaint or issue notification.

III.c) Since the LCAQMD has no project-level thresholds of significance for the LCAB, thresholds of significance from the BAAQMD are used this analysis.

This discussion addresses whether the proposed project would expose sensitive receptors to substantial pollutant concentrations. The localized pollutants that could impact sensitive receptors include: NOA, construction-generated fugitive dust (PM_{10} and $PM_{2.5}$), construction generated DPM, CO hotspots, and operational-related TACs. Project construction and operational impacts are assessed separately below.

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, the following are land uses where sensitive receptors are typically located:

- Long-term health care facilities
- Rehabilitation centers
- Convalescent centers
- Hospitals
- Retirement homes
- Residences
- Schools, playgrounds, and childcare centers

As a commercial development project, the proposed project itself would not be considered a sensitive receptor once operational. Therefore, for the purposes of the Health Risk Assessment (HRA), sensitive receptors associated with future on-site activities were not included as part of the construction or operational HRA. Most emissions during construction are generated during the site preparation and grading phases when heavy equipment is used to prepare the land for construction. Each phase of the project is expected to become operational following buildout of that particular phase. As the project is being built over four phases, there will be times where construction activities overlap with project operations. Off-site residential receptors were included as part of the construction and operational HRAs. Off-site receptors were placed at existing and planned residential land uses and other land uses that would or could be considered sensitive receptor locations, including the hospice located southeast of the project site.

Project as a Source - Construction

Construction Fugitive Dust

During construction, fugitive dust (PM_{10} and $PM_{2.5}$) would be generated from site grading and other earth-moving activities. Most of this fugitive dust will remain localized and be deposited near the project site; however, projects that would generate fugitive dust from construction activities have the potential to expose sensitive receptors if sensitive receptors are located near where construction activities could occur.

The BAAQMD does not have a quantitative threshold for fugitive dust. The BAAQMD's Air Quality Guidelines recommend that projects determine the significance for fugitive dust through application of best management practices (BMPs). In accordance with the BAAQMD's guidelines on thresholds of significance for fugitive dust, the project would not be considered significant were BMPs to be followed during buildout of the project. Therefore, impacts related to fugitive dust from the construction of the proposed project would be potentially significant without the inclusions of sufficient dust control measures. As discussed in Impact AIR-2, the proposed project would implement MM AIR-2a and implement BMPs recommended by the BAAQMD to reduce potential impacts related to fugitive dust emissions from use of the construction equipment. MM AIR-2a requires the inclusion of BMPs recommended by the BAAQMD to reduce potential impacts related to fugitive dust emissions from use of construction equipment. Impacts related to construction fugitive dust would be less than significant with incorporation of MM AIR-2a.

Construction-Generated DPM

A project-level assessment was conducted of the potential community health risk and health hazard impacts on surrounding sensitive receptors resulting from the emissions of TACs during construction. A summary of the assessment is provided below, while the detailed assessment is provided in Attachment B of the memorandum.

Construction activity using diesel-powered equipment emits DPM, a known carcinogen. Diesel particulate matter includes exhaust PM_{10} and exhaust $PM_{2.5}$. A 10-year research program demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk. Health risks from TACs are a function of both concentration and duration of exposure. Construction diesel emissions are temporary, affecting an area for a period of weeks or months. Additionally, construction-related sources are mobile and transient in nature.

The health risk assessment evaluated DPM (represented as exhaust PM_{10}) 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. According to the BAAQMD, 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 10.0 in one million, an increased non-cancer risk of greater than 1.0 on the hazard index (chronic or acute). The project site is located within 1,000 feet of existing and planned sensitive receptors that could be exposed to diesel emission exhaust during the construction period. 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 a nearby hospital). A maximally exposed individual receptor (MEIR) was determined for each phase of construction through the use of the dispersion modeling. Risks from all phases of construction were calculated for the MEIR location identified in each phase. Surrounding land uses and sensitive receptors are as follows:

- North – North of the project site is commercial development, followed by California State Route 29.
- South – South of the project site is a hospice and mostly vacant land, followed by a small subdivision of single-family homes.
- East – East of the project site is California State Route 29, followed by mostly vacant land with sparsely distributed commercial and residential buildings.
- West – West of the project site is mostly vacant land with sparsely distributed commercial and residential buildings.

Locations of the MEIR in each construction phase are summarized below and are shown in Attachment B of the memorandum.

Table 8 presents a summary of the proposed project's construction cancer risk and chronic non-cancer hazard impacts at the various MEIRs prior to the application of any equipment mitigation.

Table 8: Unmitigated Health Risks from Project Construction to Off-Site Receptors

Scenario	Health Impact Metric	Carcinogenic Inhalation Health Risk in One Million	Chronic Inhalation Hazard Index[4]
Risks and Hazards the Phase 1 MEIR[1]			
Total project construction	Risks and Hazards at the MEIR: Infants	20.50	0.026
	Risks and Hazards at the MEIR: Child	4.67	0.026
	Risks and Hazards at the MEIR: Adult	0.61	0.026
Risks and Hazards the Phase 2 MEIR[2]			
Total project construction	Risks and Hazards at the MEIR: Infants	32.60	0.054
	Risks and Hazards at the MEIR: Child	5.93	0.054
	Risks and Hazards at the MEIR: Adult	0.78	0.054
Risks and Hazards the Phase 3 MEIR[3]			
Total project construction	Risks and Hazards at the MEIR: Infants	22.53	0.021
	Risks and Hazards at the MEIR: Child	4.96	0.021
	Risks and Hazards at the MEIR: Adult	0.65	0.021
Highest From Any Scenario			
Total project construction	Risks and Hazards at the MIR (Infant Scenario)	32.60	0.054
	Applicable Threshold of Significance	**10**	**1**
	Exceeds Individual Source Threshold?	Yes	No

Notes:
Maximally Exposed Individual Receptor (MEIR)
[1] UTM for Phase 1 MEIR: 506655.11, 4320009.77
[2] UTM for Phase 2 MEIR: 506480.42, 4320011.71
[3] UTM for Phase 3 MEIR: 506616.29, 4320010.20
[4] Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as PM_{10} exhaust) by the REL of 5 $\mu g/m^3$.
Source: Attachment B.

As shown in Table 8, estimated health risks from elevated DPM concentrations during construction of the proposed project would exceed the applicable cancer risk significance threshold in at least one scenario. This represents a potentially significant construction TAC exposure impact. Therefore, mitigation is required to reduce the impact during the construction period to below a level of significance.

MM AIR-2 requires the project applicant, project sponsor, or construction contractor to provide documentation to the City of Lakeport that all off-road diesel-powered construction equipment greater than 50 horsepower meet EPA or CARB Tier 4 Final off-road emissions standards. Table 9 shows the health risks and non-cancer hazard index for construction with implementation of Tier 4 Final mitigation, as required by MM AIR-3a.

Table 9: Mitigated Health Risks from Project Construction to Off-Site Receptors

Scenario	Health Impact Metric	Carcinogenic Inhalation Health Risk in One Million	Chronic Inhalation Hazard Index[4]
Risks and Hazards the Phase 1 MEIR[1]			
Total project construction	Risks and Hazards at the MEIR: Infants	2.50	0.003
	Risks and Hazards at the MEIR: Child	0.57	0.003
	Risks and Hazards at the MEIR: Adult	0.07	0.003
Risks and Hazards the Phase 2 MEIR[2]			
Total project construction	Risks and Hazards at the MEIR: Infants	4.12	0.007
	Risks and Hazards at the MEIR: Child	0.75	0.007
	Risks and Hazards at the MEIR: Adult	0.10	0.007
Risks and Hazards the Phase 3 MEIR[3]			
Total project construction	Risks and Hazards at the MEIR: Infants	2.76	0.003
	Risks and Hazards at the MEIR: Child	0.61	0.003
	Risks and Hazards at the MEIR: Adult	0.08	0.003
Highest From Any Scenario			
Total project construction	Risks and Hazards at the MIR (Infant Scenario)	4.12	0.007
	Applicable Threshold of Significance	**10**	**1**
	Exceeds Individual Source Threshold?	No	No

Notes:
Maximally Exposed Individual Receptor (MEIR)
[1] UTM for Phase 1 MEIR: 506655.11, 4320009.77
[2] UTM for Phase 2 MEIR: 506480.42, 4320011.71
[3] UTM for Phase 3 MEIR: 506616.29, 4320010.20
[4] Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as PM_{10} exhaust) by the REL of 5 $\mu g/m^3$.
Source: Attachment B.

As noted in Table 9, calculated health metrics from the proposed project's construction DPM emissions would not exceed the cancer risk significance threshold or non-cancer hazard index significance threshold with incorporation of MM AIR-2. Therefore, the proposed project would not result in a significant impact on nearby sensitive receptors from TACs during construction.

Naturally Occurring Asbestos

The California DOC and the United States Geological Survey (USGS) have published a guide for generally identifying areas that are likely to contain NOA. Although there are areas likely to contain NOA in Lake County and within Lakeport itself, there are no NOA areas located in the immediate vicinity of the project area. Therefore, there is no impact.

Project as a Source – Operation

CO Hotspot

Localized high levels of CO (CO hotspot) are associated with traffic congestion and idling or slow-moving vehicles. The BAAQMD recommends a screening analysis to determine if a project has the potential to contribute to a CO hotspot. The screening criteria identifies when site-specific CO dispersion modeling is necessary. The project would result in a less than significant impact to air quality for local CO if the following screening criteria are met:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans; or
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; or
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

According to the Traffic Impact Analysis prepared for the project by TJW Engineering, the project would generate approximately 270 net new trips during the a.m. peak hour and 319 net new trips during the p.m. peak hour and would not substantially increase traffic volumes on nearby roadways above 44,000 vehicles per hour. Furthermore, the adjacent roadways are not located in an area where vertical and/or horizontal mixing, or the free movement of the air mass, is substantially limited by physical barriers such as large bridge overpasses or urban or natural canyon walls. Therefore, the project would not significantly contribute to an existing or projected CO hotspot. Impacts are less than significant.

Toxic Air Contaminants

The proposed project would develop approximately 15.5 acres of commercial use land and would not generate substantial on-site TAC emissions during operation. The types of commercial development that would be developed by the project are not operational uses that are typically associated with TAC emissions with the exception of the 16-pump gas station that is included as part of the project. This proposed gas station, as well as the TACs associated it, are discussed separately below. As described in the Traffic Impact Analysis, the project is expected to generate a net 4,680 average daily trips. The proposed project would primarily generate trips associated with residents and visitors traveling to and from the project site. The daily travel trips to and from the project site would primarily be generated by passenger vehicles. Because nearly all passenger vehicles are gasoline-combusted, the proposed project would not generate significant amount of DPM emissions during operation. Therefore, the proposed project would not result in significant health impacts to nearby sensitive receptors from emissions project-generated trips during operation.

Gasoline Station (Benzene)

Out of the toxic compounds emitted from gasoline stations, benzene, ethylbenzene, and naphthalene have cancer toxicity values. However, benzene is the TAC which drives the risk, accounting for 85 percent of cancer risk from gasoline vapors. Furthermore, benzene constitutes more than three to four times the weight of gasoline than ethylbenzene and naphthalene, respectively. Therefore, ethylbenzene and naphthalene have not been modeled and are instead considered significant in the case that benzene emissions are significant. Additionally, there are substances emitted from gasoline stations, such as toluene and xylene which possess acute adverse health effects (though not cancer risk). However, it is not until the benzene concentrations are more than two orders of magnitude above 10 in one million that the emissions of toluene and xylene begin to cause adverse health effects. Therefore, toluene and xylene emissions have not been modeled and are instead considered significant in the case that benzene concentrations are identified at two orders of magnitude above 10 in one million cancer risk.

Emissions sources in the model include proposed on-site fuel storage tanks and fuel dispensers. The proposed project contemplates three underground fuel storage tanks and nine fuel pumps. The specific processes associated with fuel storage tanks and fuel dispensers that emit air toxics include loading, breathing, refueling, and spillage, as described below:

- Loading – Emissions occur when a fuel tanker truck unloads gasoline into the storage tanks. The storage tank vapors, displaced during loading, are emitted through its vent pipe. (A required pressure/vacuum valve installed on the tank vent pipe significantly reduces these emissions.)
- Breathing – Emissions occur through the storage tank vent pipe as a result of temperature and pressure changes in the tank vapor space.
- Refueling – Emissions occur during motor vehicle refueling when gasoline vapors escape through the vehicle/nozzle interface.
- Spillage – Emissions occur from evaporating gasoline that spills during vehicle refueling.

Loading and breathing emissions exit the underground storage tank vent pipe and are thus treated as a point source. The height and diameter of the vent are assumed to be 3.66 meters and 0.05 meters, respectively. Refueling and spillage emissions are modeled as volume sources with a vertical dimension of 5 meters to correspond to the height of the canopy. For refueling, the release height is assumed to be 1 meter to approximate the height of a vehicle fuel tank inlet, whereas spillage emissions are assumed to be released at ground level since nearly all the gasoline from spillage reaches the ground.

The model was run to obtain the peak 24-hour and annual average concentration in micrograms per cubic meter [µg/m3] at nearby sensitive receptors.

The chronic and carcinogenic health risk calculations are based on the standardized equations contained in the U.S. EPA Human Health Evaluation Manual and the Office of Environmental Health Hazard Assessment (OEHHA) Guidance Manual.

Results of the health risk analysis from operations of the proposed gasoline station are summarized in Table 10. The complete HRA prepared for the proposed project, including calculations and AERMOD output data used in the construction HRA, are included in Appendix B.

Table 10: Summary of the Health Impacts from Operations of the Proposed Gasoline Station

Exposure Scenario	Maximum Cancer Risk (Risk per Million)	Chronic Non-Cancer Hazard Index	Acute Non-Cancer Hazard from Maximum Hourly Benzene
30-Year Exposure at the MEI	0.26	0.002	0.005
70-Year Exposure at the MEI	0.30	0.002	0.005
Applicable Threshold of Significance	**10**	**1**	**1**
Exceeds Individual Source Threshold?	**No**	**No**	**No**
Notes: Maximally Exposed Individual Receptor (MEIR) [1] UTM for maximum cancer risk MEIR: 506596.88, 4320010.42 Source: Attachment B.			

As shown above in Table 10, the project calculated health metrics from the proposed project's operational emissions would not exceed the cancer risk significance threshold, non-cancer hazard index significance

threshold, or acute non-cancer hazard at the MEIR. Therefore, the proposed project would not result in a significant impact on nearby sensitive receptors from project-generated TACs during operations.

Operations—The Project's Potential to Locate Sensitive Receptor Near Existing Sources of TACs
The project would not locate new sensitive receptors that could be subject to existing sources of TACs at the project site. Furthermore, the California Supreme Court concluded in *California Building Industry Association v. BAAQMD* that agencies subject to CEQA are not required to analyze the impact of existing environmental conditions on a project's future users or residents.

As such, implementation of Mitigation Measure AIR-2 will ensure that related impacts remain less than significant.

MITIGATION MEASURES

MM AIR-2 Before a construction permit is issued for the proposed project, the project applicant, project sponsor, or construction contractor shall submit construction emissions minimization plans to the City of Lakeport for review and approval. The construction emissions minimization plans shall provide reasonably detailed compliance with the following requirements:

(1) Where portable diesel engines are used during construction, all off-road equipment shall have engines that meet either EPA or CARB Tier 4 Final off-road emission standards except as otherwise specified herein. If engines that comply with Tier 4 Final off-road emission standards are not commercially available, then the construction contractor shall use the next cleanest piece of off-road equipment (e.g., Tier 4 Interim) that is commercially available. For purposes of this project design feature, "commercially available" shall mean the equipment at issue is available taking into consideration factors such as (i) critical-path timing of construction; and (ii) geographic proximity to the project site of equipment. If the relevant equipment is determined by the project applicant to not be commercially available, the contractor can confirm this conclusion by providing letters from at least two rental companies for each piece of off-road equipment that is at issue.

III.d) Since the LCAQMD has no project-level thresholds of significance for the LCAB, thresholds of significance from the BAAQMD will be used for this analysis.

As stated in the BAAQMD Air Quality Guidelines, odors are generally regarded as an annoyance rather than a health hazard and the ability to detect odors varies considerably among the populations and overall is subjective. The BAAQMD does not have a recommended odor threshold for construction activities. However, the BAAQMD recommends screening criteria that are based on distance between types of sources known to generate odor and the receptor. For projects within the screening distances, the BAAQMD has the following threshold for project operations:

An odor source with five (5) or more confirmed complaints per year averaged over three years is considered to have a significant impact on receptors within the screening distance shown in the BAAQMD's guidance (see Table 14).

The BAAQMD's 2017 Air Quality Guidelines provide a table with odor screening distances recommended by BAAQMD for a variety of land uses. Projects that would site an odor source or a receptor farther than the applicable screening distance, shown in Table 11 below, would not likely result in a significant odor impact.

Since the project is not adding new sensitive receptors to the project area or within screening distance of potential odor sources, the following information is being presented for informational purposes only.

Table 2: Screening Levels for Potential Odor Sources

Odor Generator	Distance
Wastewater Treatment Plant	2 miles
Wastewater Pumping Facilities	1 mile
Sanitary Landfill	2 miles
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	2 miles
Chemical Manufacturing	2 miles
Fiberglass Manufacturing	1 mile
Painting/Coating Operations	1 mile
Rendering Plant	2 miles
Coffee Roaster	1 mile
Food Processing Facility	1 mile
Confined Animal Facility/Feed Lot/Dairy	1 mile
Green Waste and Recycling Operations	1 mile
Source: Bay Area Air Quality Management District (BAAQMD). 2017. Air Quality Standards and Attainment Status. Website: https://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status. Accessed October 8, 2021.	

The project is commercial in nature and would not locate near sensitive receptors once operational. Although the project would not be considered a sensitive receptor land use, the project area was reviewed for existing odor sources for information purposes only. No portion of the project site is located within any screening distance of any odor generators listed in Table 11. For disclosure and informational purposes only, the closest odor source to the project is an auto body shop 1.08 miles to the northeast of the project boundary.

Project Construction and Project Operation

The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptors. Although offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies. Project operations would not be anticipated to produce odorous emissions. 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 onsite 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.

FINDINGS

The proposed project would have a **Less Than Significant Impact with Mitigation Incorporated** on Air Quality.

IV. BIOLOGICAL RESOURCES. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and 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, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☒	☐	☐

Thresholds of Significance: The project would have a significant effect on biological resources if it would 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; have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service; have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; 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; conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

DISCUSSION

The project involves subdividing the 15.5-acre parcel to nine parcels for the purpose of developing a commercial center that would include a service station, six to eight restaurants, two retail buildings and a 70-room hotel. The commercial center would include on-site roadways accessing those commercial uses, with parking and landscaping distributed around the property, as well as serving each proposed parcel. The project would be located between Parallel Drive and Todd Road, west of State Route 29. Development of

the project would require altering the topography of the site for the commercial development. The entire property would be graded at the start of the project. The project area was previously an orchard; however, the trees have been removed.

A Biological Resources Assessment for the Lakeport Shopping Center Study Area (Biological Report) was prepared by Salix Consulting on October, 2019 (see Appendix C), to identify and describe the biological communities present in the study area, evaluate and identify if any potential sensitive or special status species or habitat areas within the site, conduct an analysis to determine if waters of the U.S. are present, and provide conclusions and recommendations. One field survey (September 2019) was conducted by Salix Principal Biologist. Prior to and during the survey, a number of resources were consulted to determine potential areas of sensitive plant and wildlife species occurrence in the vicinity of the Project Site, including California Department of Fish and Wildlife (CDFW) Natural Diversity Database (CNDDB) for the Lakeport quadrangle, U.S. Geological Survey's (USGS) 7.5-minute Lakeport quadrangle topographic map, and aerial photography. The biotic site survey was conducted following protocol developed by CDFW.

Natural features within the vicinity of the Site include ruderal grassland habitats, blackberry scrub and potential waters of the U.S.

Based on the species identified in the CNDDB records, the range of habitats present, and the geographical range of the various sensitive species, 28 special status plant species and 13 special status wildlife species were identified within a five-mile radius. Of the 28 plant species, 12 plant species were eliminated from further consideration due to the absence of serpentine or volcanic substrates and other soil requirements. Thirteen other plant species were determined to have no potential for occurring onsite due to the absence of suitable wet habitats or vernal pools. The final three plant species were determined to have no potential for occurring onsite due to the absence of woodland and forest habitat. In summary, the habitat on the property would not reflect the habitat or strata needed for those plant species. Of the 13 wildlife special status species identified within five miles, the lack of dense woodland or vegetation habitat on the property would not provide necessary cover for breeding and nesting habitat for those animal species. The wetland swale on the property was inspected on September 9, 2019, and determined not to be adequate to support any wetland habitat associated with special status plant or wildlife.

The previously mentioned wetland swale was identified on the property during the September 9, 2019, inspection that would represent "waters of the U.S." The wetland swale flows from the northwest to the southwest across the eastern portion of the study area. The swale originates from a small culvert near Todd Road and carries low velocity wet season water through the property. The flow drains a three-acre area directly west of the site. The swale area consists of 0.33 acres of the property and is quite compromised from the historic orchard use of the property. The swale supports both wetland and upland species. The two primary species in the swale are Italian ryegrass (a facultative species) and common madia (an upland species). One facultative wetland species that consistently occurs along the swale is dense-flower spike-primrose (*Epilobium densiflorum*). Also found in patchy distribution is an obligate wetland species, pennyroyal (*Mentha pulgium*). Fulle's teasel (*Dispsacus fullonum*) (facultative) is abundant in patchy areas as well. A wetland delineation for the property was prepared by Salix Consulting on October of 2019.

IMPACT ANALYSIS

IV.a) Construction activities under the proposed project would include grading the property and developing the commercial property in a phased development over the next several years that would include a service station, various restaurants and various commercial retail distributed through-out the property. The project setting is located in a primarily commercial area, however, the site is primarily undeveloped and comprises

a mix of grasses and shrubs on a former orchard. As noted in the Biological Report, prepared by Salix Consulting on October 2019, no special habitats, such as freshwater ponds, thermal springs, or serpentine outcrops, are present at the Project Site. As noted above, only ruderal grassland, blackberry scrub, and a wetland swale identified as waters of the U.S were found to be present on-site, thereby eliminating the potential for sensitive species specific to other types of habitats.

As the removal of vegetation, including a few select small trees, may be necessary to accommodate the proposed project, the project has the potential to impact the bird species of special concern previously observed on-site. As noted in the Biological Report, the nesting season is generally considered March 1 through August 1. In order to reduce the potential for impacts to these and other special status bird species that have the potential to be located on-site, specific recommendations were included in the Biological Report, which recommended any necessary heavy vegetation removal (limbs over 6 inches in diameter) occur during the non-nesting season (August 1-March 1); however, should heavy vegetation be proposed during the nesting season (March 1-August 1), it is recommended that a qualified biologist conduct a survey to determine the presence of vulnerable nests (within a distance of 100 feet for passerines and 300 feet for raptors from the heavy vegetation removal). It is recommended that any active nests be allowed to complete their nesting or until the biologist determines they are no longer active before removal occurs. These recommendations are included as Mitigation Measure BIO-1, below.

Therefore, with mitigation incorporated, the proposed project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service, and a less than significant impact would occur.

IV.b-c) According to the Biological Study, there is a wetlands swale that runs through the property that has been identified as waters of the U.S (see Figure 1 of Appendix C). The drainage flows southeasterly from a drainage culvert under Toad Road onto the northwest corner of the property and extends for approximately 1130 feet across the property to the southeast corner of the property, where it flows into an existing culvert. As stated in the Biological Resources Assessment, although the wetland swale has been identified as possible waters of the U.S., no special status species either plants or animals associated wetland habitats were identified on the site. A Wetland Delineation for the Lakeport Shopping Center Study Area was prepared on October 2019. The Wetland Delineation identified the location and size of the wetland. The wetland swale does not have a distinct stream bank (riparian) or stream bed (wetland indicators) vegetation was observed, nor were any other natural streams or riparian areas observed on the Project Site. The size of the wetland swale is 0.33 acres.

As identified in the General Plan, the primary goal is to preserve and protect streams and creeks in the natural state to the maximum extent feasible. The development of the multiple commercial buildings for the Service station, restaurants, a hotel and commercial retail would require significant grading to allow the buildings, parking, roadway and other related improvements on this site. The location of the wetland swale running through the site would significantly limit the development of this property. However, the wetland swale does not reflect a stream or creek and is only flowing during the winter season as a drainage pattern. The wetland swale reflects waters of the U.S. under the criteria set forth by the Army Corp of Engineers, and would not reflect the goals of the City of Lakeport General Plan. The applicant is currently working with the Army Corp of Engineers to provide funding to a mitigation bank for preservation of an identified wetland habitat. The mitigation bank would require the preservation of 0.33 acres (reflecting the size of the wetland swale of the property). The City shall require Mitigation Measure BIO-2, which will ensure a wetland mitigation bank is in place prior to the issuance of a grading permit.

IV.d) The proposed project would not impact the movement of any native resident or migratory fish, as the Site does not contain any waterways that support fish. As noted above, no sensitive plant species were observed during the biological survey. The Site is not located in a known migratory corridor and contains limited suitable habitat for many species; as a result, the project would therefore not be anticipated to impede any potential migratory species. The Site is located between two roadways, as well as directly west of State Highway 29, that lead to commercial and various residential areas and would not create new barriers to wildlife movement. However, as discussed above, the Site contains habitat, although limited, that may be utilized by several special status species, including birds. With implementation of Mitigation Measure BIO-1, which prescribes recommended protocol in the event heavy vegetation removal would occur during the nesting period, a less than significant impact would occur.

IV.e-f) As discussed above, the project consists of grading for a commercial development that includes a service station, various restaurants and commercial retail. The City of Lakeport's local polices and ordinances protecting biological resources are outlined in the City of Lakeport General Plan Conservation Element and the Zoning Code Chapter 17.21. The ordinances protect native trees, including oak, redwood, willow, and cottonwood (Ord. 796 Att. A(part), 1999). A few blue oak and valley oak (along with a large arroyo willow) are present in the blackberry scrub on the northern boundary of the site.

Development projects involving applications for building permits and land use projects within the City are required to include a tree report which details where existing native trees are located on the site, and would be a condition of approval for the proposed project. The tree report should include information such as the type and number of trees and their size and health. Upon submittal of the tree report, the Community Development Director shall review the information and make a recommendation as to the necessity to revise the proposed development project in order to retain the trees or mitigate the impact to the trees. At this time, it is anticipated the project would require the removal of select trees. Any vegetation removal would be required to comply with the City's policies and ordinances, including General Plan Policies C 1.2 and C 1.3; and Lakeport Municipal Code measures 17.21.030 Preservation of native trees, 71.21.040 Land development tree report, and 1721.050 Review and determination. The City recognizes that some trees may have to be removed to facilitate development in accordance with the City's General Plan. Pursuant to Section 17.21.050 of the Lakeport Municipal Code, for those trees that are to be removed, the Community Development Director or the Planning Commission shall require a 1:1 replacement with a minimum fifteen-gallon tree in the same or similar species as the tree to be removed. If the trees that are removed are mature and healthy, there shall be a 1:1 replacement with a minimum twenty-four-inch root ball specimen in the species that is the same or similar to the tree removed. Trees planted as replacements shall be continually maintained or replaced if they fail to survive. Replacement trees shall be planted on the site where the preexisting tree was removed or may be planted on a separate site at the discretion of the City.

Additionally, as discussed above, the Biological Survey recommend that any proposed heavy vegetation (limbs over 6 inches in diameter) removal shall be conducted in the non-nesting season (August 1-March 1). However, should any removal of heavy vegetation be proposed during the breeding nesting season, then a qualified biologist shall determine the presence of vulnerable nests (within a distance of 100 feet for passerines or 300 feet for raptors from the heavy vegetation removal). Any active nests within the above-mentioned distances shall be allowed to be complete their nesting or until the biologist determines that they are no longer active before removal (see Mitigation Measure BIO-1). With implementation of Mitigation Measure BIO-1 and compliance with City policies, the proposed project would have a less than significant impact.

MITIGATION MEASURES

BIO-1: Due to the presence of known sensitive bird species within the Site's area, any proposed heavy vegetation (limbs over 6 inches in diameter) shall be conducted in the non-nesting season (August 31-February 1). However, should removal of heavy vegetation be proposed during the nesting season (February 1-August 31), a qualified biologist shall determine the presence of vulnerable nests (within a distance of 100 feet for passerines and 300 feet for raptors from the heavy vegetation removal). Any active nests within the above-mentioned distances shall be allowed to complete their nesting or until the qualified biologist determines the nests are no longer active before the heavy vegetation shall be allowed to occur.

BIO-2: Prior to the issuance of the grading permit, the applicant shall provide a signed agreement for a wetland habitat mitigation bank reflecting the loss of the 0.33-acre wetland swale. Said agreement shall be approved by the Army Corp of Engineers. The mitigation bank shall be in place prior to the issuance of the grading permit.

FINDINGS

The proposed project would have a **Less Than Significant Impact with Mitigation Incorporated** on Biological Resources.

V. CULTURAL RESOURCES. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §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?	☐	☒	☐	☐

Thresholds of Significance: The project would have a significant effect on cultural resources if it would cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5; cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5; or disturb any human remains, including those interred outside of formal cemeteries.

DISCUSSION:

A *Cultural Resources Determination of Eligibility and Effect for the Lakeport Hub* was prepared by Peak & Associates, Inc (Peak). on November 13, 2019, to identify and present any archaeological, historical, or cultural resources located within the Area of Potential Effect (APE)(see Appendix D). Peak conducted a records search (File Number 19-0641) at the Northwest Information Center (NWIC), located on the campus of Sonoma State University, in Rohnert Park, California, which included a review of all study reports on file within a one-quarter mile radius of the project area. A total of 11 previous studies have been completed within the records search radius, with no previous studies conducted within the project area. As provided in the Cultural Resources Report, no cultural resources are documented within the project APE. In addition, review of historic registers and inventories indicate that no historical landmarks or points of interest are present within the project area, nor are there any National Register-listed or eligible properties within a half-mile radius of the project area.

As part of the Cultural Resources Report, Peak contacted the Native American Heritage Commission (NAHC), to request a Sacred Lands File (SLF) search for any resources present within the project area and to request the contact information for the representatives of the Native American Tribes associated with the area. In a letter response dated October 15, 2019, the NAHC indicated the SLF search returned a positive result and provided the contact information for five (5) local Tribal representatives. In compliance with Assembly Bill (AB) 52, on October 15, 2019, Peak sent a consultation letter to each of the Tribal representatives. The Big Valley Band of Pomo Indians stated they have a "clear interest in the project and looks forward to both consultation and the assignment of cultural monitor(s) during any and all ground disturbance undertaken by the project." As of the date of this Initial Study, no additional responses or other communications have been received from the Native community regarding the project.

Field work was conducted on October 18, 2019, and included a cultural resources inventory of the project area, totaling approximately 15.5 acres. Ground surface visibility was significant due to recent removal of walnut trees and roots on the property. As noted in the Cultural Resources Report, the entire project area was surveyed using intensive survey coverage with transects spaced less than 15 meters apart. Ground visibility was generally good as recent tree removal activities left large areas of exposed sediment scattered across the project area.

There was no evidence of prehistoric or historic period cultural resources present within the project area. Peak concluded in their report that the project, as presently designed, would have no impact to important cultural resources from implementation of the project. With the high probability of finding cultural resources on the site the City would recommend two measures in the event of inadvertent discovery of cultural resources or human remains during project implementation (see Mitigation Measures CULT-1 and CULT-2, below). In response to Big Valley Band of Pomo Indians' request for a cultural monitor to be present on-site during any and all ground disturbance to be undertaken by the project, a third mitigation measure (Mitigation Measure CULT-3) has been included, below.

Copies of the NAHC and Tribal consultation request letters and associated responses are included in Appendix D.

IMPACT ANALYSIS

V.a) As set forth in Section 5024.1(c) of the Public Resources Code, in order for a cultural resource to be deemed "important" under CEQA and thus eligible for listing on the California Register of Historic Resources (CRHR), it must meet at least one of the following criteria:

1. is associated with events that have made a significant contribution to the broad patterns of California History and cultural heritage; or
2. is associated with the lives of persons important to our past; or
3. embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possess high artistic value; or
4. has yielded or is likely to yield, information important to prehistory or history (ALTA, 2019).

As provided in the Archaeological Report, prepared by Peak on November 13, 2019, a total of 11 previous studies have been completed within the records search radius. No cultural resources are documented within the project APE, although four prehistoric cultural resources are present within a half-mile radius of the Site. In addition, review of historic registers and inventories indicate that no historical landmarks or points of interest are present within the project area, nor are there any National Register-listed or eligible properties within a half-mile radius of the project area. The field survey, conducted on October 18, 2019, also did not reveal any historical resources within the project area. No impact would occur.

V.b-c) As discussed above, no cultural resources are documented within the project APE. Prehistoric cultural resources that include sites containing lithic scatters and midden soils are present within a half-mile radius of the Site (Appendix D).

Peak, in the Cultural Resources Report, concluded that the project, as presently designed, is not anticipated to have an adverse effect on cultural resources. However, the City provides two recommendations, which prescribe protocol to follow in the event of advertent discovery of cultural resources or human remains and are included as Mitigation Measures CULT-1 and CULT-2, below. In addition, Big Valley Band of Pomo Indians' request for a cultural monitor to be present on-site during any and all ground disturbing activities to be completed under the project is included as Mitigation Measure CULT-3, below. With mitigation incorporated, a less than significant impact would occur.

MITIGATION MEASURES

CULT-1: If previously unidentified cultural resources are encountered during project implementation, any persons on-site shall avoid altering the materials and their stratigraphic context. A qualified professional archaeologist shall be contacted to evaluate the situation. Project personnel shall not collect cultural resources. [Prehistoric resources include, but are not limited to, chert or obsidian flakes, projectile points, mortars, pestles, and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include stone or abode foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.]

CULT-2: If human remains are encountered on-site, all work must stop in the immediate vicinity of the discovered remains and the County Coroner and a qualified archaeologist must be notified immediately so that an evaluation can be performed. If the remains are deemed to be Native American and prehistoric, the Native American Heritage Commission (NAHC) must be contacted by the Coroner so that a "Most Likely Descendant" can be designated and further recommendations regarding treatment of the remains is provided.

CULT-3: A cultural monitor from the Scotts Valley and/or Big Valley Band of Pomo Indians shall be present on-site for any and all ground disturbance to be completed under the project. The project contractor shall consult with the Tribe at least three weeks prior to the start of any ground disturbing activities and shall also provide the Tribe with the anticipated construction schedule and plans.

FINDINGS

The proposed project would have a **Less Than Significant Impact with Mitigation Incorporated** on Cultural Resources.

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

Thresholds of Significance: The project would have a significant effect on energy if it would result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation; or require or result in the construction of new water or wastewater facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

DISCUSSION

An Air Quality, Health Risk Analysis, Greenhouse Gas and Energy Technical Memorandum was performed on behalf of the proposed Project by Johnson, Johnson and Miller Air Quality Consulting Services (report date October 14, 2021). The following discussion and impact analysis are directly referencing this memorandum (see Appendix B for full report and references).

Pacific Gas and Electric Company (PG&E) provides electricity and natural gas service to the City. Upon buildout of the project site, electricity to the project site would be provided by PG&E. All electricity infrastructure would be located underground and would tie-in to existing infrastructure.

Based on PG&E's 2019 power content label, approximately 28.5 percent of PG&E's electricity for its base plan came from eligible renewable resources including solar, wind, geothermal, biomass, and small hydroelectric sources. Additionally, a larger percent of PG&E's total electric power mix was from GHG-free sources including nuclear, large hydroelectric, and eligible renewable sources of energy. In 2020, approximately 85 percent of the electricity PG&E supplied was GHG free. PG&E reports that more than 35 percent of delivered electricity came from RPS-eligible sources in 202, while PGE's 2020 power content label reports 30.6 percent of PG&E's retail sales were from eligible renewable sources.

Short-Term Construction

Off-Road Equipment

The proposed project is anticipated to begin construction in 2022, with an end date that has yet to be determined. For modeling purposes, construction was assumed to be completed on November 25, 2024. Table 12 provides estimates of the project's construction fuel consumption from off-road construction equipment for the entire project, categorized by construction activity.

Table 3: Construction Off-Road Fuel Consumption

Project Component	Construction Activity	Fuel Consumption (gallons)
Lakeport Shopping Center Construction (All Phases Combined)	Site Preparation	1,410
	Site Grading	1,984
	Building Construction	60,678
	Paving	1,911
	Architectural Coating	346
Total		**66,329**
Note: Totals may not appear to sum correctly due to rounding Source: Energy Consumption Calculations (Attachment C).		

As shown in Table 12, construction activities associated with the proposed project would be estimated to consume approximately 66,329 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. 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.

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 13 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 13: Construction On-Road Fuel Consumption

Project Component	Total Annual Fuel Consumption (gallons)
Phase 1 Construction	3,855
Phase 2 Construction	10,715
Phase 3 Construction	23,303
Total	**37,874**
Note: Totals may not appear to sum correctly due to rounding Source: Energy Consumption Calculations (Attachment C).	

Long-Term Operations

Transportation Energy Demand

Table 14 provides an estimate of the daily and annual fuel consumed by vehicles traveling to and from the proposed project. These estimates were derived using the same assumptions used in the operational air quality analysis for the proposed project.

Table 14: 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)	46.5%	9,772	3,566,600	31.83	306.9	112,036
Light Trucks and Medium Duty Vehicles (LDT1, LDT2, MDV)	41.3%	8,678	3,167,416	23.11	375.5	137,052
Light-Heavy to Heavy-Heavy Diesel Trucks (LHD1, LHD2, MHDT, HHDT)	7.6%	1,601	584,423	11.38	140.7	51,341
Motorcycles (MCY)	3.8%	792	289,076	35.65	22.2	8,109
Other (OBUS, UBUS, SBUS, MH)	0.9%	187	68,222	6.83	27.4	9,994
Total	**100%**	**21,029**	**7,675,737**	-	**872.7**	**318,531**
Notes: Percent of Vehicle Trips and VMT provided by CalEEMod. "Other" consists of buses and motor homes. VMT = vehicle miles traveled Source: Energy Consumption Calculations (Attachment C).						

As shown above, daily vehicular fuel consumption is estimated to be 872.7 gallons of gasoline and diesel fuel combined. Annual consumption is estimated at 318,531 gallons.

In terms of land use planning decisions, the proposed project would constitute development within an established community and would not be opening a new geographical area for development such that it would draw mostly new trips or substantially lengthen existing trips. A Traffic Impact Analysis was also completed for the project, which concluded that once operational the project would reduce VMT compared to the regional baseline. For these reasons, it would be expected that vehicular fuel consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than for any other similar land use activities in the region.

Building Energy Demand

As shown in Table 15 and Table 16, the proposed project is estimated to demand 1,754,139 kilowatt-hours (KWhr) of electricity and 3,065,275 1,000-British Thermal Units (KBTU) of natural gas, respectively, on an annual basis.

Table 15: Long-Term Electricity Usage

Land Use	Size (ksf)	Title 24 Electricity Energy Intensity (KWhr/size/ year)	Nontitle 24 Electricity Energy Intensity (KWhr/size/ year)	Lighting Energy Intensity (KWhr/size/ year)	Total Electricity Energy Demand (KWhr/size/ year)	Total Electricity Demand (KWhr/year)
Convenience Market with Gas Pumps	6.16	4.47	2.81	5.7	12,974	79,918
Fast Food Restaurant with Drive Thru	1.85	3.57	15.83	4.74	24,140	44,659
High Turnover (Sit Down Restaurant)	3.20	3.57	15.83	4.74	24,140	77,248
Hotel	101.64	1.81	2.87	2.57	7250	736,890
Other Asphalt Surfaces	67.61	0.00	0.00	0.00	0.00	0.00
Parking Lot	531.87	0.00	0.00	0.35	350	186,154
Recreational Swimming Pool	1.00	0.00	0.00	0.00	0.00	0.00
Regional Shopping Center	48.48	4.47	2.81	5.7	12,980	629,270
Total						**1,754,139**

Notes:
ksf = 1,000 square feet
KWhr= kilowatt hour
Source: Energy Consumption Calculations (Attachment C).

Table 16: Long-Term Natural Gas Usage

Land Use	Size (ksf)	Title 24 Natural Gas Energy Intensity (KBTU/size/year)	Nontitle 24 Natural Gas Energy Intensity (KBTU/size/year)	Total Natural Gas Energy Demand (KBTU/size/year)	Total Natural Gas Demand (KBTU/year)
Convenience Market with Gas Pumps	6.16	7.14	0.00	7,137	43,961
Fast Food Restaurant with Drive Thru	1.85	27.38	88.55	115,930	214,471
High Turnover (Sit Down Restaurant)	3.20	27.38	88.55	115,930	370,976
Hotel	101.64	20.51	0.05	20,560	2,089,720
Other Asphalt Surfaces	67.61	0.00	0.00	0.00	0.00
Parking Lot	531.87	0.00	0.00	0.00	0.00
Recreational Swimming Pool	1.00	0.00	0.00	0.00	0.00
Regional Shopping Center	48.48	7.14	0.00	7,140	346,147
Total					**3,065,275**

Notes:
The proposed project could potentially include a variety of uses consistent with the development standards, however the land use selections above were based on estimating the "worst-case" scenario demand for electricity.
ksf = 1,000 square feet
KBTU= 1,000 British Thermal Units
Source: Energy Consumption Calculations (Attachment C).

IMPACT ANALYSIS

VI.a) This impact addresses the energy consumption from both the short-term construction and long-term operations are discussed separately below.

Construction Energy Demand

As summarized in Table 12 and Table 13, the proposed project would require 66,329 gallons of diesel fuel for construction off-road equipment and 37,874 gallons of gasoline and diesel for on-road vehicles 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, and as such, impacts would be less than significant.

Long-Term Energy Demand

Building Energy Demand

Buildings and infrastructure constructed pursuant to the proposed project would comply with the versions of CCR Titles 20 and 24, including California Green Building Standards (CALGreen), that are applicable at the time that building permits are issued. The proposed project is estimated to demand 1,754,139 KWhr of electricity per year and 3,065,275 KBTU of natural gas per year. This would represent an increase in demand for electricity and natural gas.

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.

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 commercial development. Compliance with future building code standards would result in increased energy efficiency. Based on the above information, the proposed project would not result in the inefficient or wasteful consumption of electricity or natural gas, and impacts would be less than significant.

Transportation Energy Demands

The daily vehicular fuel consumption is estimated to be 872.7 gallons of both gasoline and diesel fuel. Annual consumption is estimated at 318,531 gallons. The proposed project would constitute development within an established community and would not be opening a new geographical area for development such that it would draw mostly new trips or substantially lengthen existing trips. The proposed project would be well positioned to accommodate existing population and reduce VMT. A Traffic Impact Analysis was also completed for the project (see Appendix F), which concluded that once operational the project would reduce VMT compared to the regional baseline. For these reasons, it would be expected that vehicular fuel consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than for any other similar land use activities in the region, and impacts would be less than significant.

VI.b) The City's General Plan includes Policy CD 2.7 to promote energy efficiency through the siting and design of new buildings. Additionally, General Plan objectives C-5 and C-6 reduce the reliance on nonrenewable energy sources in existing and new commercial, industrial, and public structures through implementation of energy resource policies to encourage the use of renewable energy and decrease energy demand. The proposed project would not conflict with any of the energy objectives or policies of the General Plan. The proposed project would constitute development within an established community and would not be opening a new geographical area for development such that it would draw mostly new trips, or substantially lengthen existing trips. The proposed project would be well positioned to accommodate existing population and reduce VMT. A Traffic Impact Analysis was also completed for the project (see Appendix F), which concluded that once operational the project would reduce VMT compared to the regional baseline. The proposed project would comply with the versions of CCR Titles 20 and 24, including CALGreen, that are applicable at the time that building permits are issued and with all applicable City measures.

For the above reasons, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and impacts would be less than significant.

MITIGATION MEASURES

No mitigation required.

FINDINGS

The proposed project would have a **Less Than Significant Impact** on Energy.

VII. GEOLOGY AND SOILS. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☒	☐
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Thresholds of Significance: The project would have a significant effect on geology and soils if it would directly or indirectly cause 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, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides; result in substantial soil erosion or the loss of topsoil; 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; be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property; have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater; or directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

DISCUSSION

As previously discussed, the proposed project involves subdividing the 15.5-acre parcel to nine parcels for the purpose of developing a commercial center that would include a service station, six to eight restaurants, two retail buildings and a 70-room hotel. The commercial center would include on-site roadways accessing those commercial uses, with parking and landscaping distributed around the property, as well as serving

each proposed parcel. The project would be located between Parallel Drive and Todd Road, west of State Highway 29.

Seismicity

The City of Lakeport is situated in an active earthquake area and the potential exists for a seismic event in the future. Immediately east of the City, between the city limits and Clear Lake, there is a potentially active rupture zone. Potentially active rupture zones are defined as faults which have been active in the past 200,000 years. No major potentially damaging earthquakes have occurred within the past 200 years along any faults within Lake County.

The majority of faults in Lake County are located in the Cobb Mountain and Hopland Grade areas, running southeasterly to the southern County line. The southeastern portion of the County also appears to have considerable earthquake faults. There are also active faults within the vicinity of the City of Lakeport, including the San Andreas Fault, located approximately 30 miles (48 km) to the west, and the Healdsburg Fault, located approximately 15 miles (24 km) to the west. These faults have been responsible for moderate to major earthquakes in the past. The maximum earthquake magnitudes that can come from these fault lines are 8.25 for the San Andreas fault and 6.75 for the Healdsburg fault (Earth Metrics Inc., 1989).

The largest earthquake to affect the City was the 1906 San Francisco earthquake, which had a magnitude of 8.3. Although shaking was severe, overall damage in Lakeport was minor and generally limited to the fall of decorative masonry and chimneys.

Landslides

Landslides are a notable geologic constraint to development in the Lakeport Planning Area. The landslide potential of an area is a function of the area's hydrology, geology, and seismic characteristics. Clay soils, which underlie many hillsides in Lakeport, are particularly susceptible to sliding. Although landslides generally occur in areas with steep slopes, they may occur on slopes with a grade of 20 percent or less in geologically unstable areas. Since zones of moderate to high landslide potential exist in Lakeport, soils tests carried out by a registered soil engineer or geologist are essential wherever landslide potential is indicated or suspected. Foundations for structures built in areas with steep slopes in excess of 20 percent must be carefully engineered to avoid increasing landslide risk (City General Plan, 2009).

Sediments and Soils

The Lakeport area is located on a sediment-filled valley next to Clear Lake. Exposed materials within the area are limited to serpentinite and quaternary sediments. These sediments are described as poorly consolidated to unconsolidated mixtures of sand, silt, clay, and gravel derived from older rock in the adjacent mountains. Because of the low strength of the quaternary sediments, they are subject to rapid erosion and shallow slumping.

The Lakeport region is composed of a variety of geological features. For example, oak woodlands occur in inland valleys and foothills usually with a hard pan or rocky soil between 4 and 20 feet deep. Additionally, chaparral communities occur in the inland foothills on dry slopes and ridges with shallow soils and are often found on serpentine soils. There are a number of areas in Lake County that contain serpentine rock and soils, including areas within the Lakeport Planning Area. These areas have been mapped and identified to contain regulated amounts of asbestos, and, unless adequately mitigated, the disturbance of serpentine soils will release asbestos into the air and water. The areas mapped within the Lakeport Planning Area (refer to Figure 19, Serpentine Rock and Soils, in the City's General Plan) are mostly within the southern and central portions

of the City of Lakeport, with smaller areas scattered throughout the northern part of the City. The project area is located outside of the mapped areas containing serpentine rock and soils (City General Plan, 2009).

IMPACT ANALYSIS

VII.a.i) The purpose of the Alquist-Priolo Earthquake Fault Zoning Act is to mitigate the hazard of surface faulting by preventing the construction of buildings used for human occupancy over an area with known faults. Unlike damage from ground shaking, which can occur at great distances from the fault, impacts from fault rupture are limited to the immediate area of the fault zone where the fault breaks along the grounds surface. The Site does not overlap a fault line or zone (MTA, 2011). Impacts from fault rupture would not be expected to occur within the project area and since the proposed project entails construction of various commercial buildings for service station, restaurants, retail and a hotel, those structures would be required to meet building code requirements that will address fault rupture occurrence and subsequent ground shaking.

VII.a.ii) The project area is located about 30 miles east of the San Andreas Fault and the Healdsburg Fault is approximately 15 miles west of Lakeport. The proposed project site has a moderate chance of experiencing ground shaking within the next 50 years (Branum et al., 2016). As noted above, the City of Lakeport is situated in an active earthquake area and is vulnerable to seismic activity and the associated secondary impacts of shaking. Given the proximity of significant active faults to the site, an earthquake shaking potential of 50 to 70 percent, and a shear-wave velocity of 352 meters per second in the upper 30 meters of the surficial geology, the Site would be likely to experience low ground shaking during the economic lifespan of any development on the Site (DOC, 2019). However, all development, including the project, is subject to the latest version of the California Building Code (CBC) standards, which would minimize any potential geological risks. Therefore, a less than significant impact would occur.

VII.a.iii-iv) An Initial Geotechnical Engineering Investigation prepared by Moore Twining Associates, Inc. evaluated the Site and immediate vicinity for potential liquefaction or landslides (Appendix E). The report identified potential groundwater associated with the on-site wetland, that could have a potential for liquefaction on-site, however the wetland would be significantly modified on the site, as well as specific construction practices on the property would make the potential of liquefaction or landslides negligible. As a result, the project would not be situated on or within an area of potential liquefaction or landslides, and no impact would occur.

VII.b) The proposed project would require excavation and groundbreaking activities to develop the 15 acres with commercial building and related roadways. Under the proposed project, pursuant to Policy LU 7.4 of the City's General Plan and the General Construction Activity Stormwater Permit (Construction General Permit Order 2009-0009-DWQ) (discussed further under Section IX, Hydrology and Water Quality, below), the project contractor would be required to implement stormwater Best Management Practices (BMPs) such as straw bales, fiber rolls, and/or silt fencing structures to assure the minimization of erosion resulting from construction and to avoid runoff into sensitive habitat areas, limit ground disturbance to the minimum necessary, and stabilize disturbed soil areas as soon as feasible after construction is completed. With implementation of appropriate BMPs, the proposed project would not result in substantial soil erosion or the loss of topsoil and a less than significant impact would occur.

VII.c) As previously discussed, the Site and immediate vicinity is not within an area of potential major liquefaction or landslides and is generally flat in nature (less than 15 percent slope). Additionally, the Site is not located within a mapped Alquist-Priolo special studies zone. While Lakeport is located in a highly active earthquake area, the proposed project development is minimal and would not induce landslides, lateral

spreading, subsidence, liquefaction, or collapse. Therefore, the project would have a less than significant impact.

VII.d) The soil type underlying the project Site is Manzanita loam which drains moderately well and has slow permeability. These soils are often used for homesite development, septic tank absorption fields, and around vineyards (NRCS, 2019). These soils are generally defined as non-expansive. Since the proposed commercial development and roadway improvements would be designed and graded in accordance with the latest version of the CBC, the potential for the project to be susceptible to expansive soils would be minimized and a less than significant impact would occur.

VII.e) Development of the proposed project does not include septic tanks or alternative wastewater disposal systems. The project area contains sewers that can support the minimal amount of wastewater generated by dust control suppression activities. Therefore, no impact would not occur from development of the project.

VII.f) No paleontological resources or unique geologic features have been identified in the project area and the likelihood of them being present in this area is considered very low. However, the potential exists for unique paleontological resources or site or unique geological features to be encountered within the project area, as ground-disturbing construction activities, including grading and excavation, would be required for the proposed project. However, with incorporation of Mitigation Measure GEO-1 below, which provides specific requirements in the event any fossil(s) are encountered during construction of the proposed project, a less than significant impact would occur.

MITIGATION MEASURES

GEO-1: In the event that fossils or fossil-bearing deposits are discovered during project construction, the contractor shall notify a qualified paleontologist to examine the discovery and excavations within 50 feet of the find shall be temporarily halted or diverted. The area of discovery shall be protected to ensure that fossils are not removed, handled, altered, or damaged until the Site is properly evaluated, and further action is determined. The paleontologist shall document the discovery as needed, in accordance with Society of Vertebrate Paleontology standards (Society of Vertebrate Paleontology 1995), evaluate the potential resource, and assess the significance of the finding under the criteria set forth in CEQA Guidelines Section 15064.5. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the project proponent determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the project based on the qualities that make the resource important. The plan shall be submitted to the City of Lakeport for review and approval prior to implementation.

FINDINGS

The proposed project would have a **Less Than Significant Impact with Mitigation Incorporated** on Geology and Soils.

VIII. **GREENHOUSE GAS EMISSIONS**. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions (GHG), 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?	☐	☐	☒	☐

Thresholds of Significance: The project would have a significant effect on greenhouse gas emissions if it would generate greenhouse gas emissions (GHG), 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 reducing the emissions of greenhouse gases.

DISCUSSION

An Air Quality, Health Risk Analysis, Greenhouse Gas and Energy Technical Memorandum was performed on behalf of the proposed Project by Johnson, Johnson and Miller Air Quality Consulting Services (report date October 14, 2021). The following discussion and impact analysis are directly referencing this memorandum (see Appendix B for full report and references).

Environmental Setting

Greenhouse gases and climate change are cumulative global issues. The CARB and EPA regulate GHG emissions within the State of California and the U.S., respectively. Meanwhile, the CARB has the primary regulatory responsibility within California for GHG emissions. Local agencies can also adopt policies for GHG emission reduction.

Many chemical compounds in the Earth's atmosphere act as GHGs as they absorb and emit radiation within the thermal infrared range. When radiation from the sun reaches the earth's surface, some of it is reflected into the atmosphere as infrared radiation (heat). Greenhouse gases absorb this infrared radiation and trap the heat in the atmosphere. Over time, the amount of energy from the sun to the earth's surface should be approximately equal to the amount of energy radiated back into space, leaving the temperature of the earth's surface roughly constant. Many gases exhibit these "greenhouse" properties. Some of them occur in nature (water vapor, carbon dioxide [CO_2], methane [CH_4], and nitrous oxide [N_2O]), while others are exclusively human made (like gases used for aerosols).

The principal climate change gases resulting from human activity that enter and accumulate in the atmosphere are listed below.

Carbon Dioxide

Carbon dioxide enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and chemical reactions (e.g., the manufacture of cement). Carbon dioxide is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.

Methane

Methane is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and agricultural practices and the decay of organic waste in municipal solid waste landfills.

Nitrous Oxide

Nitrous oxide is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

Fluorinated Gases

Hydrofluorocarbons, perfluorinated chemicals, and sulfur hexafluoride are synthetic, powerful climate-change gases that are emitted from a variety of industrial processes. Fluorinated gases are often used as substitutes for ozone-depleting substances (i.e., chlorofluorocarbons, hydrochlorofluorocarbons, and halons). These gases are typically emitted in smaller quantities, but because they are potent climate-change gases, they are sometimes referred to as high global warming potential gases.

Emissions Inventories and Trends

According to the CARB's recent GHG inventory for the state, released 2021, California produced 418.2 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) in 2019. The major source of GHGs in California is transportation, contributing approximately 39.7 percent of the state's total GHG emissions in 2019. This puts total emissions at 12.8 $MMTCO_2e$ below the 2020 target of 431 million metric tons. California statewide GHG emissions dropped below the 2020 GHG limit in 2016 and have remained below the 2020 GHG limit since then.

Potential Environmental Impacts

For California, climate change in the form of warming has the potential to incur and exacerbate environmental impacts, including but not limited to changes to precipitation and runoff patterns, increased agricultural demand for water, inundation of low-lying coastal areas by sea-level rise, and increased incidents and severity of wildfire events. Cooling of the climate may have the opposite effects. Although certain environmental effects are widely accepted to be a potential hazard to certain locations, such as rising sea level for low-lying coastal areas, it is currently infeasible to predict all environmental effects of climate change on any one location.

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial and manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. A project's GHG emissions are at a micro-scale relative to global emissions but could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact.

Regulatory Requirements

California has adopted statewide legislation addressing various aspects of climate change and GHG emissions mitigation. Much of this legislation establishes a broad framework for the state's long-term GHG reduction and climate change adaptation program. The governor has also issued several executive orders (EOs) related to the state's evolving climate change policy. Of particular importance are AB 32 and SB 32, which outline the state's GHG reduction goals of achieving 1990 emissions levels by 2020 and a 40 percent reduction below 1990 emissions levels by 2030.

In the absence of federal regulations, control of GHGs is generally regulated at the state level and is typically approached by setting emission reduction targets for existing sources of GHGs, setting policies to promote renewable energy and increase energy efficiency, and developing statewide action plans.

The City of Lakeport adopted their most recent General Plan in 2009, which includes city-wide goals and strategies for reducing GHG emissions, but not a project-specific threshold for determining the significance of GHG emissions during construction or operation of any particular project. The City of Lakeport has not adopted a GHG reduction plan. In addition, the City has not completed the GHG inventory, benchmarking, or goal-setting process required to identify a reduction target and take advantage of the streamlining provisions contained in the CEQA Guidelines amendments adopted for SB 97 and clarifications provided in the CEQA Guidelines amendments adopted on December 28, 2018. Furthermore, there are no recommendations provided by the LCAQMD for projects in the LCAB. As such, there are not formally adopted or recommended project-level thresholds of significance provided by either the LCAQMD or the City of Lakeport. In the absence of an adopted numeric GHG emissions threshold consistent with the State's 2030 target, the project's GHG emissions impact determination is based on 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 GHG emissions. The project's GHG emissions are provided for informational purposes only.

IMPACT ANALYSIS

VIII.a) The proposed project may contribute to climate change impacts through its contribution of GHGs. The proposed project would generate a variety of GHGs during construction, including several defined by AB 32, such as CO_2, CH_4, and N_2O from the exhaust of equipment, construction hauling trips, and worker commuter trips.

In the absence of an adopted numeric GHG emissions threshold consistent with the State's 2030 target, the project's GHG emissions impact determination is based on 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 GHG emissions. The project's GHG emissions are provided for informational purposes only.

Quantification of Greenhouse Gas Emissions for Informational Purposes

Construction Emissions

Construction emissions would be generated from the exhaust of construction equipment, material delivery trips, and worker commuter trips. Detailed construction assumptions are provided in Modeling Parameters and Assumptions section of this technical memorandum. Construction-generated GHGs were quantified and are disclosed in Attachment A. $MTCO_2e$ emissions during construction of the project are summarized below in Table 17.

Table 4: Construction Greenhouse Gas Emissions

Project Construction (2022-2024)	**$MTCO_2e$**
Phase 1 Project Construction (2022)	350
Phase 2 Project Construction (2023)	432
Phase 3 Project Construction (2023-2024)	606
Total Construction $MTCO_2e$	**1,388**
Emissions Amortized Over 30 Years[1]	**46**

Notes:
$MTCO_2e$ = metric tons of carbon dioxide equivalent
[1] Construction GHG emissions are amortized over the 30-year lifetime of the project.
Source: CalEEMod Output (Attachment A).

During the construction of the proposed project, approximately 1,380 $MTCO_2e$ would be emitted. Neither the City of Lakeport, the LCAQMD, nor the BAAQMD have an adopted thresholds of significance for construction related GHG emissions. Because impacts from construction activities occur over a relatively short-term period, they contribute a relatively small portion of the overall lifetime project GHG emissions. In addition, GHG emission reduction measures for construction equipment are relatively limited. Therefore, a standard practice is to amortize construction emissions over the anticipated lifetime of a project, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies. In the absence of a construction emission threshold, emissions were quantified for informational purposes only. The total emissions generated during construction were amortized based on the life of the development (30 years) and added to the operational emissions to determine the total emissions from the project, as shown below.

Operational Emissions

Operational or long-term emissions occur over the life of the project. The operational emissions for the proposed project are shown in Table 18. Sources for operational emissions include the following:

- Motor Vehicles: These emissions refer to GHG emissions contained in the exhaust from the cars and trucks that would travel to and from the project site.
- Natural Gas: These emissions refer to the GHG emissions that occur when natural gas is burned on the project site. Natural gas uses include heating water, space heating, dryers, stoves, or other uses.
- Indirect Electricity: These emissions refer to those generated by offsite power plants to supply electricity required for the project.
- Water Transport: These emissions refer to those generated by the electricity required to transport and treat the water to be used on the project site.
- Waste: These emissions refer to the GHG emissions produced by decomposing waste generated by the project. These include waste removed from car interiors during the cleaning process; waste generated in the restrooms; and waste generated from the operations of the facility.

Detailed modeling results and more information regarding assumptions used to estimate emissions are provided in Attachment A of Appendix B. Operational emissions are provided in Table 18.

Table 18: Operational Greenhouse Gas Emissions at Project Buildout

Source Category	**$MTCO_2e$**
Area	0
Energy Consumption	328
Mobile	3,011
Solid Waste Generation	87
Water Usage	12
Amortized Construction Emissions[1]	46
Total	*3,484*

Notes:
$MTCO_2e$ = metric tons of carbon dioxide equivalent
[1] Construction GHG emissions are amortized over the 30-year lifetime of the project.
Source: CalEEMod Output (Attachment A of Appendix B).

Table 19: Operational Greenhouse Gas Emissions in the 2030 Operational Year

Source Category	$MTCO_2e$
Area	0
Energy Consumption	318
Mobile	2,466
Solid Waste Generation	87
Water Usage	12
Amortized Construction Emissions[1]	46
Total	*2,883*

Notes:
$MTCO_2e$ = metric tons of carbon dioxide equivalent
[1] Construction GHG emissions are amortized over the 30-year lifetime of the project.
Source: CalEEMod Output (Attachment A of Appendix B).

However, significance for GHG emissions is analyzed by assessing the project's compliance with Consideration No. 3 regarding consistency with adopted plans to reduce GHG emissions. As discussed in detail below, the project would not conflict with any applicable plan, policy or regulation of an agency adopted to reduce the emissions of GHGs. As such, the project's generation of GHG emissions would not result in a significant impact on the environment.

Impact Analysis (Project's Compliance with Consideration No. 3 Regarding Consistency with Adopted Plans to Reduce GHG Emissions)

The following analysis assesses the project's compliance with Consideration No. 3 regarding consistency with adopted plans to reduce GHG emissions. As discussed above, the City of Lakeport has not adopted a GHG reduction plan. In addition, the City has not completed the GHG inventory, benchmarking, or goal-setting process required to identify a reduction target and take advantage of the streamlining provisions contained in the CEQA Guidelines amendments adopted for SB 97 and clarifications provided in the CEQA Guidelines amendments adopted on December 28, 2018. There are no other local plans adopted for the purposes of reducing GHG emissions that contain measures that are applicable to development projects. Since no other local or regional Climate Action Plan is in place, the project is assessed for its consistency with CARB's adopted Scoping Plans. This would be achieved with an assessment of the project's compliance with Scoping Plan measures contained in the 2017 Scoping Plan Update.

Greenhouse Gas Emissions Estimation Summary and Greenhouse Gas Impact Analysis

The following analysis assesses the proposed project's compliance with Consideration No. 3 regarding consistency with adopted plans to reduce GHG emissions. The proposed project is assessed for its consistency with CARB's adopted Scoping Plans. This would be achieved with an assessment of the proposed project's compliance with Scoping Plan measures contained in the 2017 Scoping Plan Update.

Consistency with SB 32

- The 2017 Climate Change Scoping Plan Update (2017 Scoping Plan) includes the strategy that the State intends to pursue to achieve the 2030 targets of Executive Order S-3-05 and SB 32. The 2017 Scoping Plan includes the following summary of its overall strategy for reaching the 2030 target:
- SB 350

    - Achieve 50 percent Renewables Portfolio Standard (RPS) by 2030.
    - Doubling of energy efficiency savings by 2030.
- Low Carbon Fuel Standard (LCFS)
    - Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).
- Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
    - Maintaining existing GHG standards for light- and heavy-duty vehicles.
    - Put 4.2 million zero-emission vehicles (ZEVs) on the roads.
    - Increase ZEV buses, delivery and other trucks.
- Sustainable Freight Action Plan
    - Improve freight system efficiency.
    - Maximize use of near-zero emission vehicles and equipment powered by renewable energy.
    - Deploy over 100,000 zero-emission trucks and equipment by 2030.
- Short-Lived Climate Pollutant (SLCP) Reduction Strategy
    - Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030.
    - Reduce emissions of black carbon 50 percent below 2013 levels by 2030.
- SB 375 Sustainable Communities Strategies
    - Increased stringency of 2035 targets.
- Post-2020 Cap-and-Trade Program
    - Declining caps, continued linkage with Québec, and linkage to Ontario, Canada.
    - 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.
- By 2018, develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Table 20 provides an analysis of the project's consistency with the 2017 Scoping Plan Update measures.

Table 20: Consistency with SB 32 2017 Scoping Plan Update

Scoping Plan Measure	Project Consistency
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 project will purchase electricity from a utility subject to the SB 350 Renewable Mandate SB 100 Renewable Mandate. SB 100 revised the Renewable Portfolio Standard 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 specific provider for this project is Pacific Gas and Electric Company.
SB 350 Double Building Energy Efficiency by 2030. This is equivalent to a 20 percent reduction from 2014 building energy usage compared to current projected 2030 levels.	**Not Applicable**. This measure applies to existing buildings. New structures are required to comply with Title 24 Energy Efficiency Standards that are

Scoping Plan Measure	Project Consistency
	expected to increase in stringency until residential housing achieves zero net energy.
Low Carbon Fuel Standard. This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	**Consistent**. Vehicles accessing the 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.	**Not Applicable**. The project consists of construction and development of a 16-pump gas station with a 3,200 square foot convenience market, 3,200 square foot restaurant, 1,850 square foot coffee shop with drive-thru, 1,850 square foot retail space, 70-room hotel, and 46,630 square foot commercial shopping/retail space and would not engage in vehicle manufacturing.
Sustainable Freight Action Plan. The plan's target is to improve freight system efficiency 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.	**Not Applicable**. The measure applies to owners and operators of trucks and freight operations. However, deliveries that would be made to the future businesses are expected to be made by increasing number of ZEV delivery trucks.
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.** Sources of black carbon are already regulated by the CARB and air district criteria pollutant and toxic regulations that control fine particulate emissions from diesel engines and other combustion source. Additional controls on the sources of black carbon specifically for their GHG impacts beyond those required for toxic and fine particulates are not likely to be needed. Project is not likely to be a major source, but would include air conditioning and typical commercial refrigerators in convenience markets, restaurants, and other commercial land uses likely to be included.
SB 375 Sustainable Communities Strategies. Requires Regional Transportation Plans to include a sustainable community's strategy for reduction of per capita vehicle miles traveled.	**Not Applicable**. The project is not within an SCS priority area and so is not subject to requirements applicable to those areas.
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

Scoping Plan Measure	Project Consistency
	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.
Natural and Working Lands Action Plan. The CARB is working in coordination with several other agencies at the federal, state, and local levels, stakeholders, and with the public, to develop measures as outlined in the Scoping Plan Update and the governor's Executive Order B-30-15 to reduce GHG emissions and to cultivate net carbon sequestration potential for California's natural and working land.	**Not Applicable**. The project is commercial development and will not be considered natural or working lands.
Source: California Air Resources Board (CARB). 2017. The 2017 Climate Change Scoping Plan Update. January 20. Website: https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf. Accessed October 4, 2021.	

Regarding goals for 2050 under Executive Order S-3-05, at this time it is not possible to quantify the emissions savings from future regulatory measures, as they have not yet been developed; nevertheless, it can be anticipated that operation of the project would comply with whatever measures are enacted that state lawmakers decide would lead to an 80 percent reduction below 1990 levels by 2050. In its 2008 Scoping Plan, CARB acknowledged that the "measures needed to meet the 2050 are too far in the future to define in detail." In the First Scoping Plan Update; however, CARB generally described the type of activities required to achieve the 2050 target: "energy demand reduction through efficiency and activity changes; large scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and rapid market penetration of efficiency and clean energy technologies that requires significant efforts to deploy and scale markets for the cleanest technologies immediately." The 2017 Scoping Plan provides an intermediate target that is intended to achieve reasonable progress toward the 2050 target.

Accordingly, taking into account the proposed project's emissions, project design features, and the progress being made by the State towards reducing emissions in key sectors such as transportation, industry, and electricity, the project would be consistent with State GHG Plans and would further the State's goals of reducing GHG emissions to 1990 levels by 2020, 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050, and does not obstruct their attainment. Impacts would be less than significant.

VIII.b) The analysis contained above under VIII a) evaluates whether the project would not conflict with any applicable plan, policy, or regulation of an agency adopted to reduce the emissions of GHGs. As discussed under VIII a) above, the project would not conflict with any applicable plan, policy, or regulation of agency to reduce. As such, project impacts in this regard would be less than significant.

FINDINGS

The proposed project would have a **Less Than Significant Impact** on Greenhouse Gas Emissions.

IX. HAZARDS AND HAZARDOUS MATERIALS. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
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 complied pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

Thresholds of Significance: The project would have a significant effect on hazards and hazardous materials if it were to 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; emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; be located on a site which is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment; result in a safety hazard or excessive noise for people residing or working in the project area if 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; or impair the implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan; or expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

DISCUSSION

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or has characteristics defined as hazardous by a federal, state, or local agency. Chemical and physical properties such as toxicity, ignitability, corrosiveness, and reactivity cause a substance to be considered hazardous. These properties are defined in the California Code of Regulations (CCR), Title 22, §66261.20-66261.24. A "hazardous waste" includes any hazardous material that is discarded, abandoned, or

will be recycled. Therefore, the criteria that render a material hazardous also cause a waste to be classified as hazardous (California Health and Safety Code, §25117).

The proposed project involves subdividing the 15.5-acre parcel to nine parcels for the purpose of developing a commercial center that would include a service station, six to eight restaurants, two retail buildings and a 70-room hotel. The commercial center would include on-site roadways accessing those commercial uses, with parking and landscaping distributed around the property, as well as serving each proposed parcel. The project would be located between Parallel Drive and Todd Road, west of State Highway 29. Construction activities would be short-term and limited in nature and may involve limited transport, storage, use, or disposal of hazardous materials. Some examples of hazardous materials handling include fueling and servicing construction equipment on-site, grading, mixing and pouring of concrete and asphalt, and the transport of fuels, lubricating fluids, and solvents. These types of materials are not acutely hazardous, and all storage, handling, and disposal of these materials are regulated.

IMPACT ANALYSIS

IX.a) Some hazardous materials, such as gasoline, diesel fuel, hydraulic fluids, oils, lubricants, and cleaning solvents would be anticipated to be used at the Site during construction. The transport of hazardous materials by trucks is regulated by federal safety standards under the jurisdiction of the U.S. Department of Transportation. The use of such materials would not create a significant hazard to the public. No significant quantities of hazardous materials would be used during construction or after construction of the proposed project. Therefore, impacts would be less than significant.

IX.b) As noted above, the proposed project would require the routine transport, use, or disposal of hazardous materials. During construction, some hazardous materials, such as diesel fuel, would be used. The transport, use, and storage of any hazardous materials at the Site would be required to be conducted in accordance with all federal, State, and local regulations, in order to assure hazardous materials are not released into the environment. The types and quantities of hazardous materials to be used on-site are not expected to pose a significant risk to the public and/or environment. Since the transport, use, and storage of any hazardous materials at the Site would be required to be conducted in accordance with all federal, state, and local regulations, a less than significant impact would occur.

IX.c) As previously discussed, the site is located adjacent to commercial development to the north and residential areas directly south and west of the project site. Although the construction phase may utilize small amounts of hazardous materials, all hazardous materials utilized on-site would be used and disposed of in accordance with all applicable federal, State, and local regulations. It is not anticipated that hazardous materials to be utilized on-site would be used or stored at the Site in any quantity or application that could interact with these schools. In order to help minimize potential impacts associated with the proposed project, Mitigation Measure AIR-1 is required as described above in the Section III, Air Quality, above, which requires all equipment to be utilized under the project is maintained in good working condition. In addition, use of hazardous materials would be limited to construction which will be conducted in accordance to Best Management Practices (BMPs). Furthermore, when the proposed project commences, all hazardous materials at the Site would be required to be stored, handled, and transported in accordance with federal, state, and local regulations. With mitigation incorporated, a less than significant impact would occur.

IX.d) The location of the proposed project and adjacent properties has been checked against the lists of hazardous materials sites maintained by the State of California (http://www.envirostor.dtsc.ca.gov/public/). The proposed project is not located on a site included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5. Therefore, no impact would occur.

IX.e) The proposed project is not included in an airport land use plan, is not within two miles of a public airport or public use airport. Therefore, the proposed project would not result in a safety hazard for people residing or working in the project area. Thus, there would be no impact.

IX.f) There are no emergency response plans or evacuation plans that apply to the proposed project area. The proposed project is not anticipated to interfere with an emergency response or evacuation plan pursuant to the General Plan Safety Element. When necessary, a single lane may be temporarily closed along Parallel Drive or surrounding streets during construction. Emergency access would be maintained to all properties during construction. Therefore, construction of the proposed project would not physically interfere with an emergency response or evacuation plan pursuant to the General Plan Safety Element. Following construction, the storm drain would not affect emergency or evacuation routes. Impacts would be less than significant.

IX.g) The proposed project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. The proposed project would entail installation of a continuous sidewalk, widened road, and as a result some replacement of utility poles which would not increase exposure of people or property to wildland fires. Therefore, no impact would occur.

MITIGATION MEASURES

Refer to Mitigation Measures AIR-1 in Section III, Air Quality, above.

FINDINGS

The proposed project would have a **Less Than Significant Impact with Mitigation Incorporated** to Hazards and Hazardous Materials.

X. HYDROLOGY AND WATER QUALITY. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
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 off-site?	☐	☐	☒	☐
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
iv) Impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Thresholds of Significance: The project would have a significant effect on hydrology and water quality if it would violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality; substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin; 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 result in substantial erosion or siltation on- or off-site, substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site, 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 impede or redirect flows; in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

DISCUSSION

The City of Lakeport currently obtains its water from two primary sources: groundwater sources and water from Clear Lake treated at the City's water treatment plant. The groundwater supply consists of four wells located in Scotts Valley. Two of the wells are on Scotts Creek adjacent to the City's old pumping plant and two wells are located on the Green Ranch. Seasonal fluctuation in the underground water table means that the wells are only viable for portions of the year. When water supply from the wells in Scotts Valley is limited, the City relies on treated surface water from Clear Lake (City General Plan, 2009). The project site is located approximately 0.50 miles west of Clear Lake.

The City of Lakeport and the project Site are under the jurisdiction of the Central Valley Regional Water Quality Control Board (CVRWQCB), which is under the direction of the California State Water Resources Control Board. The Clean Water Act and the California Porter-Cologne Water Quality Control Act provide regulatory responsibility to these two agencies for regulating and protecting water quality.

Clear Lake and its tributary drainages have a long history of flooding. Flooding in Lakeport historically results from two distinct types of events: shoreline flooding due to high lake levels and wind velocity, and stream bank flooding caused by high intensity cloudburst storms over one or more of the drainage areas. Conditions in the winter tend to be conducive to both types of flood conditions at the same time. Additionally, the project Site is clear of the seiche inundation zone.

The proposed project involves subdividing the 15.5 acre parcel to nine parcels for the purpose of developing a commercial center that would include a service station, six to eight restaurants, two retail buildings and a 70-room hotel. The commercial center would include on-site roadways accessing those commercial uses, with parking and landscaping distributed around the property, as well as serving each proposed parcel. The project site currently has an open swale on the property that enters the property from Todd Road at the northwestern corner of the property and extends through the property to the southeastern corner of the property. That stormwater drainage serves approximately 8-acres to the northwest of the property. The proposed project would include new storm drain inlets through the property, as well as underground storm drain detention system that would provide onsite recharge that would serve the 15.5-acre property. With the proposed storm drain upgrades it is not anticipated to significantly change the drainage patterns associated with the commercial development. All project features, including culverts, gutters and on-site detention, would meet the most recent regulations set by the City, CVRWQCB, and any other applicable regulatory agencies. The project would require water services associated with the buildings and commercial uses proposed for the property. The City of Lakeport currently has adequate water supplies to provide the water services for this project.

Currently, the site is undeveloped and stormwater run-off from the site is directed towards the City's existing stormwater system, which ultimately drains to Clear Lake. The proposed project is anticipated to increase the amount of impervious surfaces at the Site, due to the buildings, parking and roadway. Under the City's General Plan (Policy LU 7.4), the City shall require all construction to employ stormwater Best Management Practices (BMPs). Implementation of BMPs would improve the quality and/or control the quantity of runoff with measures such as, detention ponds, constructed wetlands, updated drainage facilities, and construction practices which regulate erosion control.

The U.S. Environmental Protection Agency's (EPA) National Pollutant Discharge Elimination System (NPDES) permit program addresses water pollution by regulating point sources that discharge pollutants to waters of the United States. Created in 1972 by the Clean Water Act, the NPDES permit program grants authority to State governments to perform many permitting, administrative, and enforcement aspects of the program. Within California, the NPDES permit program is administered by the State Water Resources Control Board (SWRCB). Construction projects that would disturb more than one acre of land, such as the project, would be subject to the requirements of General Construction Activity Stormwater Permit (Construction General Permit Order 2009-0009-DWQ), which requires operators of such construction sites to implement stormwater controls and develop a Stormwater Pollution Prevention Plan (SWPPP) identifying specific BMPs to be implemented to minimize the amount of sediment and other pollutants associated with construction sites from being discharged in stormwater runoff. Such BMPs may include straw bales, fiber rolls, and/or silt fencing structures to assure the minimization of erosion resulting from construction and to avoid runoff into sensitive habitat areas (including the Class III drainage and other waterways within the surrounding area), limit ground

disturbance to the minimum necessary, and stabilize disturbed soil areas as soon as feasible after construction is completed. After construction, the commercial development would include a stormwater system that would provide on-site collecting, recharge and filtration to limit downstream impacts.

IMPACT ANALYSIS

X.a) The proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. The proposed commercial development would be constructed in accordance to the most recent standards set by all regulatory agencies, including but not limited to the City and State and local water quality control boards (SWRCB and CVRWQCB). Additionally, the project would be subject to the Statewide General Construction Permit, which requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that specifies erosion and sediment control construction and post-construction BMPs to reduce or eliminate construction-related and operational impacts on receiving water quality. Therefore, the proposed project would have a less than significant impact.

X.b) The proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. As noted above, the project, would require water services and utilities to serve the project Site, which the City of Lakeport has an adequate water supply for the commercial development. The project would not include any wells or water extraction from the immediate aquifer. Additionally, the proposed project is anticipated to increase the amount of impervious surface at the site, however, the project includes on-site storm water recharge associated with the detention facility on the property to maintain historic recharge and it is not anticipated that the project would decrease groundwater supplies or interfere substantially with groundwater recharge; therefore, a less than significant impact would occur.

X.c.i) Development of the proposed project would involve development of commercial buildings, parking areas and roadways covering the property. Project development would, result in an increase in impervious surface area from existing conditions as a result of commercial development and associated improvements. Project development would include construction and post-construction BMPs, including updated drainage facilities, to accommodate project-related increases in storm water flows designed according to current federal, State, and local regulatory standards. Therefore, the increase in impervious surface resulting from proposed commercial development and associated improvements would not result in substantial erosion or siltation. No alteration of the course of a river or stream, including the identified Class III drainage within the project boundaries, would result from project development. Any potential hazardous chemicals will be stored on-site in appropriately designed containment units. Therefore, a less than significant would occur as a result of the project.

X.c.ii-iv) Drainage from the Site would continue to be directed towards the City's stormwater drainage system, underground storm water detention system and landscape areas, which would reduce the amount of surface runoff. Additionally, the proposed project would not be anticipated to 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, as the project would be required to implement BMPs to minimize the potential for this to occur. According to the Federal Emergency Management Agency (FEMA) Map 06033C0493D effective September 30, 2005, the project Site is primarily classified as an "Area of Minimal Flood Hazard" (Zone X), with a 0.2 percent annual chance of flood hazard and a one percent annual chance flood with average depth of less than one foot or with drainage areas of less than one square mile (FEMA, n.d.). The proposed project would not impede or redirect flows, significantly increase the amount of surface runoff, or contribute significant amounts of runoff that would exceed the capacity of stormwater drainage systems. Therefore, the project would have a less than significant impact.

X.d) As shown on the Lake County Parcel Viewer (Web GIS, 2019), the project Site is not located within a tsunami inundation zone. The topography of the Site and surrounding area is relatively flat, with slopes less than 15 percent (Web GIS, 2019). As described above, according to FEMA Map 06033C0493D effective September 30, 2005, the project Site is primarily classified as an "Area of Minimal Flood Hazard" (Zone X), with a 0.2 percent annual chance of flood hazard and a one percent annual chance flood with average depth of less than one foot or with drainage areas of less than one square mile (FEMA, n.d.). The proposed project would not be subject to flood hazard, tsunami, seiche zones, or risk the release of pollutants due to project inundation. According to the FEMA flood map and Figure 18 (Seiche Inundation Zone) of the Lakeport General Plan, the proposed Site is clear of any flooding and seiche inundation zones. The project Site is situated along slight slopes and the existing road development uses a variety of outdated systems to aid in the management of stormwater runoff. The proposed project aims to update the on-site storm water drainage that is associated with this commercial development. A less than significant impact would occur.

X.e) As previously discussed, the Site would require additional water resources and utilities. The proposed project consists of commercial development of a service station, several restaurants, a 70-unit hotel and commercial retail. Per the Lakeport General Plan 2025 Policies and Programs aimed at managing water quality include:

> **Policy LU 5.1:** Water System Master Plan. Maintain and update a Water System Master Plan every five years and identify capital improvements required to meet anticipated demand.
>
> **Program S 2.2-a:** Monitor twice per year, during the dry and wet seasons, Lakeport's potable water supply for trace chemicals and other potential contaminants. Utilize updated industry-wide standards for evaluating potable water quality. Alert the County Environmental Health Department, City Council and the public if water quality hazards are identified. Develop and implement mitigating measures to protect the public health. Responsibility: Public Works Departments

It is not anticipated that the project would decrease groundwater supplies or interfere substantially with groundwater recharge. Additionally, the proposed project would not have stormwater runoff impacts that would violate any water quality standards or waste discharge requirements. A SWPPP, listing BMPs to prevent construction pollutants and products from violating any water quality standard or waste discharge requirements, would be prepared for the proposed project, per the General Construction Activity Stormwater Permit (Construction General Permit Order 2009-0009-DWQ). Therefore, the proposed project is not anticipated to conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. No impact would occur.

MITIGATION MEASURES

No mitigation required.

FINDINGS

The proposed project would have a **Less Than Significant Impact** on Hydrology and Water Quality.

XI. **LAND USE AND PLANNING**. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
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?	☐	☐	☐	☒

THRESHOLDS OF SIGNIFICANCE: The project would have a significant effect on land use and planning if it would physically divide an established community or 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.

DISCUSSION

Currently, land use in Lakeport is approximately 76 percent commercial/residential, 5 percent industrial, and 19 percent open space/governmental/agriculture. Marketing efforts promote Lakeport's appeal as a vacation and recreation destination. In recent years City leaders have emphasized various economic development strategies in an effort to make the City the focal point of economic and community activity for the County and the region. The City continues to work to attract new retail, hotel, industrial, educational, recreational, and food service establishments to the community (City's Sewer System Management Plan, 2018). The proposed project area is commercial with commercial uses immediately north of the Site. The area immediately surrounding the Site is primarily designated as Residential (R), to the south and west of the site. State Route 29 is located to the east of the site. under the City's 2025 General Plan (see Figure 3), and zoned as Major Retail (C-2) under the City's Zoning Ordinance (see Figure 4). The City's Zoning Map indicates that further to the east of the Site is zoned as Major Retail (C-2), High Density Residential (R-3), and Industrial (I), with areas west of South Main Street. To the west of the site is Residential (R-1) in the County of Lake. No changes to the surrounding current land use or zoning designations are proposed under the project.

The proposed project involves the construction and long-term operation of the commercial properties that includes a service station, several restaurants, a 70-unit hotel and several commercial retail buildings are all consistent with the Lakeport 2025 General Plan, which identified the commercial land use designation for the property. Under that designation, the Environmental Impact Report for that General Plan evaluated the future expansion of commercial uses to the year 2025.

IMPACT ANALYSIS

XI.a) The proposed project consists of a commercial development on a parcel that has been historically designated commercial and represents a continuation of commercial development to the north. As a result, the proposed project activities would not physically divide a community. Therefore, there would be no impact as a result of the proposed project.

XI.b) The proposed project would not conflict with any applicable land use plan, policy, or regulation. The proposed project is located in a predominately commercial area and involves construction of a commercial development. Although the Site was found to contain Waters of the United States, as noted in the Wetland Delineation, prepared by Salix Consulting October 2019 (see Appendix C), several recommendations were recommended in order to reduce potential impacts. The project, as proposed, does not conflict with any applicable habitat or natural community conservation plan and would remain consistent with local land use and zoning policies, no impact would occur.

MITIGATION MEASURES

No mitigation required.

FINDINGS

The proposed project would have **No Impact** on Land Use and Planning.

XII. MINERAL RESOURCES. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
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?	☐	☐	☐	☒

THRESHOLDS OF SIGNIFICANCE: The project would have a significant effect on mineral resources if it would 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 or 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.

DISCUSSION

The proposed project is not located in an area of known rock, aggregate, sand, or other mineral resource deposits of local, regional, or State residents. In addition, as supported by the City of Lakeport's General Plan, there are no mineral extraction or other mining operations at present within the Lakeport city limits or Sphere of Influence. Sand, gravel, and borax deposits are extracted in the Scotts Valley and Big Valley Areas, approximately 20 miles from the City. These mining operations have a significant impact on ground water capacity, siltation of streams, and highway traffic. The current Lakeport General Plan prohibits any mining or mineral extraction activities within the City and calls for the City to work with the County of Lake to discourage such land uses within the City's Sphere of Influence (City General Plan, 2009).

IMPACT ANALYSIS

XII.a-b) The project area does not contain mineral resources that are of value locally, to the region, or to residents. The project area is not identified as a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Therefore, the proposed project would not interfere with materials extraction or otherwise cause a short-term or long-term decrease in the availability of mineral resources. No impact would occur.

MITIGATION MEASURES

No mitigation required.

FINDINGS

The proposed project would have **No Impact** on Mineral Resources.

XIII. NOISE. Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
c) For a project located within the vicinity of 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?	☐	☐	☐	☒

THRESHOLDS OF SIGNIFICANCE: The project would have a significant effect on noise if it would result in the 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; or generation of excessive groundborne vibration or groundborne noise levels; or expose people residing or working in the project area to excessive noise levels (for a project located within the vicinity of a private airstrip or an airport or an airport land use plan, or where such as plan has not been adopted, within two miles of a public airport or public use airport).

DISCUSSION

As a result of project development, increased noise levels at the site would be anticipated during the project's construction phases, as project construction would require the use of heavy machinery to prepare the site for the commercial development. However, once construction is completed, it is anticipated that the proposed development (restaurants, service station, retail and a hotel) would not result in a substantial permanent increase in noise at the site, since commercial activities to the north and State Route 29 to the east already exists. Currently, the main sources of noise at the Site are existing vehicular traffic along State Route 29 located immediately east of the Site, as well as from Todd Road and Parallel Drive. As noted in the City's General Plan, the primary noise generators within the City of Lakeport are vehicular traffic, boaters on Clear Lake, and events at the race track at the County Fairgrounds (2009). Traffic noise volume depends primarily on traffic speed, volume, and vehicle type. The main motor vehicle noise source is tire noise, which increases with speed.

Certain land uses are particularly sensitive to noise and vibration, including residential, school, and open space/recreation areas where quiet environments are necessary for enjoyment, public health, and safety. There are several sensitive receptors located in the vicinity of the Site, including single-family residences west and south of the Site. As noted in the City's General Plan, several principal streets and highways are noted, including Parallel Drive, that are projected to experience a significant increase in noise over 60 decibels (dBA).

The maximum acceptable interior noise level in new residential development required by the State of California Noise Insulation Standards is a Ldn of 45, which is applied to all single family and other residential development within the City (2009). Table 21 (Noise and Land Use Compatibility Standards) included in the Noise Element of the City's General Plan includes the maximum exterior noise levels for different use types,

including but not limited to residential development and schools, which have a standard of 60 dBA or less (provided below).

Table 21: Noise and Land Use Compatibility Standards

Land Use	Maximum Exterior Noise Level
Residential Development	Up to 60db
Transient Lodging: Motel and Hotel	Up to 60db
School, Library, Church, Hospital and Nursing Home	Up to 60db
Auditorium, Concert Hall, Amphitheater, Sports Arena	Up to 70db
Sports Arena, Outdoor Spectator Sports	Up to 75db
Playgrounds, Neighborhood Parks, Open Space	Up to 70db
Golf Course, cemetery	Up to 70db
Office Building, Business, Commercial & Professional	Up to 65db
Industrial, Manufacturing, Utilities	Up to 70db

The City of Lakeport includes noise regulations in Chapter 17.28 (Performance Standards) of Title 17 (Land Use, Zoning, and Signs) of the *Lakeport Municipal Code* (LMC). Within the City, excessive noise is considered a nuisance and is discouraged. Specifically, within the residential zoning districts, maximum 15-minute sound levels within any one-hour equivalent sound pressure levels (A-weighted -dBA) shall be limited to 60 dBA during the hours of 7:00am to 10:00pm and 45 dBA during the hours of 10:00pm to 7:00am. Project work would be limited to the daytime hours of 7:00am to 7:00pm, Monday through Friday and between 8:00AM and 7:00PM on Saturdays and Sundays. However, the City may allow construction between 7:00PM and 7:00AM on any day if it can be demonstrated that noise would not adversely impact the neighborhood, or in the event of necessity as determined by the Building Official.

IMPACT ANALYSIS

XIII.a) Noise levels within the project area would not be expected to significantly increase as a result of the project. Construction-related activities and the associated heavy equipment would cause temporary increase in noise, which may be high at times and exceed noise standards within proximity to the sensitive receptors (including residences) in close proximity to the site; however, these impacts would only be associated with construction and would be temporary in nature. With the implementation of Mitigation Measures NOISE-1 and NOISE-2, which limits when construction may occur, requires neighboring landowners be notified of construction activities, and requires equipment utilized for the project to be equipped with muffles to lessen noise impacts, a less than significant impact would occur.

XIII.b) There are no proposed uses on-site that would result in excessive groundborne vibration or groundborne noise levels. As noted above, the construction phase of the project would require the use of heavy equipment, which would cause temporary groundborne vibration and groundborne noise. However, these impacts are associated with construction and would be temporary in nature. With implementation of Mitigation Measure NOISE-1, a less than significant impact would occur.

XIII.c) The project area is not located within the vicinity of private airstrip or an airport land use plan or within two miles of a public airport or public use airport. The nearest airport to the Site, Lampson Field Airport, a public use airport, is located approximately 3.4. miles southeast of the Site. No impact would occur.

MITIGATION MEASURES

NOISE-1: Construction noise shall be limited through operational standards. Construction activities shall be limited to between the hours of 7:00AM and 7:00PM Monday through Friday and between 8:00AM and 7:00PM on Saturdays and Sundays. The City may allow construction between 7:00PM and 7:00AM on any day if it can be demonstrated that noise would not adversely impact the neighborhood, or in the event of necessity as determined by the Building Official. Neighboring landowners shall be notified of the anticipated construction schedule prior to the commencement of construction activities.

NOISE-2: All equipment driven by internal combustion engines shall be equipped with mufflers, which are in good condition and appropriate for the equipment. The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where technology exists. At all times during project construction, stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from residences. Unnecessary idling of internal combustion engines shall be prohibited. Construction staging areas shall be established at locations that would create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project Site during all project construction activities, to the extent feasible. The construction contractor shall designate a "noise disturbance coordinator" who shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall be responsible for determining the cause of the noise complaint (e.g., starting too early, poor muffler, etc.) and instituting reasonable measures as warranted to correct the problem. A telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.

FINDINGS

The proposed project would have a **Less Than Significant Impact with Mitigation** on Noise.

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

THRESHOLDS OF SIGNIFICANCE: The project would have a significant effect on population and housing if it would induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and/or businesses) or indirectly (e.g., through extension of roads or other infrastructure); or displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

DISCUSSION

The City of Lakeport has an estimated population of 4,762 and the population density is 1557.23 people per square mile. Based on data from the U.S. Census Bureau's American Community Survey, in 2017, there were 2,552 households in the City of Lakeport. According to the 2014 Housing Element of the Lakeport General Plan, the average household size is 2.36 and is projected to remain at this figure. The City plans to extend

services and infrastructure in the urban boundary to accommodate growth. The number of residential, commercial, and industrial acres needed in the City of Lakeport through 2025 is based on population projections through 2025 and an analysis of vacant and under-utilized lands currently within the City limits.

Additionally, according to the Housing Element of the Lake County General Plan, Lake County has a population of more than 64,500 people with 44,626 residing in the unincorporated area. There are two incorporated cities in Lake County, the City of Clearlake and the City of Lakeport. Average household size is a function of the number of people living in households divided by the number of occupied housing units in a given area. Average household sizes in the incorporated cities are similar to that of the unincorporated County, with Lakeport at 2.23 and Clearlake at 2.40 (City General Plan, 2009). Outlined in the Table 22 below are the projected population and housing sizes for the City of Lakeport.

Table 22: Population and Household Projections, 2000 to 2025 – City of Lakeport

	2000*	2005*	2010*	2015*	2020*	2025*
Total Population*	4,820	5,150	5,521	5,935	6,380	6,859
Households*	1,967	2,148	2,339	2,515	2,703	2,906
Average Household Size	2.36	2.36	2.36	2.36	2.36	2.36
* DOF Lake County growth rates used for the City of Lakeport through 2025. **Assumes 2000 Lakeport avg. household size of 2.36 remains constant.						

Source: 2000 U.S. Census, Department of Finance.

The proposed project consists of constructing a commercial development on a currently vacant parcel. No residential development is proposed with this project. The commercial development would not generate the need for additional housing or increase the population of the City of Lakeport. The proposed project will not encroach on any planned urban development areas.

IMPACT ANALYSIS

XIV.a-b) The proposed commercial development would not induce population growth in the existing residential area either directly or indirectly. The project as proposed, entails construction of wide variety commercial uses, and thus, would not include any housing development. Additionally, the proposed project would not displace any existing housing or people. No housing units are proposed to be encroached upon. Furthermore, since construction of the project would be temporary in nature, it is anticipated that most, if not all, workers would live locally and would not relocate to the area. Therefore, no impact would occur.

MITIGATION MEASURES

No mitigation required.

FINDINGS

The proposed project would have **No Impact** on Population and Housing.

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

THRESHOLDS OF SIGNIFICANCE: The project would have a significant effect on public services if it would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or result in the 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 (a) fire protection, (b) police protection, (c) schools, (d) parks, or (e) other public facilities**.**

DISCUSSION

The proposed project involves subdividing a 15.5-acre parcel into nine parcels for the purpose of developing a commercial center that would include a service station, six to eight restaurants, two retail buildings and a 70-room hotel. The commercial center would include on-site roadways accessing those commercial uses, with parking and landscaping distributed around the property, as well as serving each proposed parcel.

The proposed project site is served by the Lakeport Fire District. The Lakeport Fire District is an independent all-risk fire district, located in the county seat of Lake County, on the west shore of Clear Lake. The Lakeport Fire District is approximately one mile away from the proposed project location. Additionally, the proposed project area is served by the City of Lakeport Police Department and does not include any alterations to or near the police facility.

IMPACT ANALYSIS

XV.a) As discussed above, fire protection services at the Site are currently provided by the Lakeport Fire District and would continue to be with project development. The project Site does not contain fire protection facilities that would need to be altered as a result of the proposed project, nor would the proposed project increase the need for fire protection service. No impact would occur.

XV.b) The project Site does not contain police protection facilities that would need to be altered as a result of the proposed project. The project is not expected to require closure of the road. Traffic would be diverted onto the second half-road section to allow construction of new facilities on the opposite side. Additionally, development of the proposed project would not result in increased population and residential structures, or a subsequent need for additional police protection facilities. Since the proposed project would not increase the need for police protection at the Site, no impact would occur.

XV.c) The proposed project consists of a commercial development that is not expected to increase the population in the immediate area and would not increase a demand for additional school facilities. Therefore, the proposed project would have a less than significant impact on schools.

XV.d) As mentioned above, no residential units would be constructed, nor is the population expected to increase, as a result of the proposed project. Because the proposed project would not create a need for a new or physically-altered park facility, the proposed project would not result in adverse physical impacts associated with the construction of such a facility. As such, no impact would occur.

XV.e) There are no elements of the proposed project that would impact other public facilities, such as libraries or regional hospitals. The proposed project area is residential in nature and there are no planned residential units to be constructed. Additionally, the population is not expected to increase as a result of the proposed project. No impact would occur.

MITIGATION MEASURES
No mitigation required.

FINDINGS
The proposed project would have a **Less Than Significant Impact** on Public Services.

XVI. RECREATION. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) 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) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

THRESHOLDS OF SIGNIFICANCE: The project would have a significant effect on recreation if it would 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 or include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

DISCUSSION
The City of Lakeport's parks and recreation facilities contribute to the connectivity, character, health and culture of the community. Lakeport is known for its popular recreational activities, such as boating, bass fishing, wakeboarding, swimming, sailing, and kayaking and is a destination for many tourists.

The proposed project area is currently in the vicinity of the following neighborhood parks and recreational facilities:

- Library Park, located approximately 1.0 miles from the proposed project area; and
- Westside Community Park, located approximately 0.25 miles away from the proposed project area.

The City of Lakeport is planning on a new recreational development located approximately 1.2 miles from the project site along a 5.3-acre area of the Clear Lake shoreline. In 2019, the California Department of Parks awarded the City of Lakeport a Proposition 68 grant for the development of the Lakefront Park at 810 North Main Street, approximately 0.7 miles southeast of the Site.

The project Site is bounded by commercial areas and low-density residential areas. The proposed commercial development would include some outdoor picnic areas among landscaped areas, adjacent to the proposed restaurants, as well as walking paths that provide connectivity through-out the development. The proposed project would not encroach upon any existing recreational areas or any planned recreational areas. Additionally, the project would not increase the population, nor is it expected to increase the usage of Lakeport's recreational areas.

IMPACT ANALYSIS

VI.a-b) No residential units would be constructed, nor is the population expected to increase, as a result of the proposed project. The proposed project would not increase the usage of or demand for neighborhood and regional parks or other recreational facilities. Therefore, the proposed project would not result in the physical deterioration of parks or facilities, nor would it require the construction of new park or recreational facilities.

MITIGATION MEASURES

No mitigation required.

FINDINGS

The proposed project would have **No Impact** on Recreation.

XVII. TRANSPORTATION. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) 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?	☐	☐	☐	☒

THRESHOLDS OF SIGNIFICANCE: The project would have a significant effect on transportation if it would conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities; conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b); substantially increase hazards due to a geometric design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or result in inadequate emergency access.

DISCUSSION

Roads within the City limits are maintained by the Streets Division of the City of Lakeport Public Works Department, in addition to curb and gutter, drainage systems and structures, and right-of-way improvements within the City, including but not limited to asphalt overlays and repairs, street signs, pavement markings, culvert maintenance and replacement, and other street related projects (City of Lakeport Public Works, n.d.).

The City of Lakeport is a member of the Lake Area Planning Council (APC), which is the Regional Transportation Planning Agency (RTPA) for the Lake County region. Primarily, the RTPA ensures that appropriate local transportation planning is administered in accordance with the Transportation Development Act (TDA), the State Transportation Improvement Program (STIP), and the Service Authority for Freeway Emergencies (SAFE) program. (Lake APC, n.d.).

As noted in the City's 2025 General Plan, "*Lakeport's roadway network is defined and constrained by two barriers: Clear Lake on the East and State Highway 29 on the West. The majority of the city is laid out in a rectangular grid pattern which is interrupted by hilly terrain. In these hilly areas the street system becomes discontinuous and through traffic is difficult. Many of the City's streets are narrow, not improved to current standards, and will require upgrading…Although construction of the State Highway 29 freeway has reduced congestion downtown, it is now a barrier inhibiting east-west circulation through the Planning Area*" (2009).

A Traffic Impact Analysis was performed on behalf of the proposed project by TJW Engineering, Inc. (April 26, 2021)(see Appendix F). The proposed project is projected to generate 270 net total AM peak hour trips, 319 net total PM peak hour trips and 4,860 net total daily trips. A level of service (LOS) and vehicle miles traveled (VMT) analysis was conducted for the proposed project. The following intersections in the vicinity of the project site have been included in the intersection level of service (LOS) analysis:

1. Lakeport Blvd / SR-29 NB Ramps
2. Lakeport Blvd / SR-29 SB Ramps
3. Lakeport Blvd / Parallel Drive
4. SR-175 / Parallel Drive
5. SR-175 / SR-29
6. Lakeport Blvd / Bevins Street
7. Parallel Drive / Project Driveway 1
8. Parallel Drive / Project Driveway 2
9. Parallel Drive / Project Driveway 3

LOS is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, LOS A represents free flow conditions and LOS F represents forced flow or breakdown conditions. The previously listed intersections were analyzed under the following study scenarios.

- Existing Conditions (Existing);
- Existing with Project Conditions (EP);
- Future Year 2040 No Project Conditions (2040 NP); and
- Future Year 2040 with Project Conditions (2040 WP).

As stated in the City's 2025 General Plan, traffic volumes are expected to increase as the population increases in both the City of Lakeport and County of Lake. In addition, current traffic volumes continue to increase on arterials and many collectors, particularly in the downtown area (2009).

As previously discussed, the proposed project involves subdividing a 15.5-acre parcel into nine parcels for the purpose of developing a commercial center that would include a service station, six to eight restaurants, two retail buildings and a 70-room hotel. The commercial center would include on-site roadways accessing those commercial uses, with parking and landscaping distributed around the property, as well as serving each proposed parcel. The commercial center would include on-site roadways accessing those commercial uses, with parking and landscaping distributed around the property, as well as serving each proposed parcel. Access to the commercial center would be primarily from Parallel Drive, with three driveways into the center along Parallel Drive. The project would require significant grading of the property, that would include modifying the existing topography of the property with no significant export of materials. All grading for the property, which includes all three phases of the project, would be completed at the time of the original grading permit for the property. The grading plan includes grading the southern portion of the property down, moving that material to the lower areas on the northern portion of the property. The grading would leave a steeper slope along the Todd Road frontage, as well as between some of the proposed parcels. The project would require the placement of a storm drain through the property to address historic offsite stormwater flows on the property. The project includes an onsite stormwater detention facility in the center of the property that provides onsite stormwater storage and recharge addressing the increase in impervious surfaces associated with the proposed improvements. The stormwater system located in the center of the property would serve all nine parcels. The project includes extending water and sewer systems to serve the project. Existing water lines along Todd Road and Parallel Drive are adequate to serve the project. The existing wastewater line along Parallel Drive provides connectivity for sewer lines serving the project.

IMPACT ANALYSIS

XVII.a) The proposed project would not be anticipated to conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities, as several improvements would occur. Although traffic interruptions may occur during the construction phase of the project, this impact would be temporary in nature.

Once construction commences on-site, construction workers would be required at the Site. Project construction would be limited to the hours of 7:00AM and 7:00PM Monday through Friday and between 8:00AM and 7:00PM on Saturdays and Sundays; however, the City may allow construction between 7:00PM and 7:00AM on any day if it can be demonstrated that noise would not adversely impact the neighborhood, or in the event of necessity as determined by the Building Official. It is expected that construction of the project would result in a slight increase in traffic to and from the site, as construction workers arrive and leave the site at the beginning and end of the day, in addition to minor interruption of traffic on adjacent streets, when heavy equipment necessary for project construction is brought to and removed from the site. Once construction is complete, the workers would no longer be required at the site.

Project build-out is anticipated to significantly impact the capacity of the street system, level of service standards established by the City, and the overall effectiveness of the circulation system, as several of the previously listed intersections in the LOS analysis were found to be deficient under existing and future scenarios. Specifically, the Lakeport Boulevard / SR-29 NB Ramp is deficient under Existing with Project Conditions (EP) and Future Year 2040 with Project Conditions (2040 WP), Lakeport Boulevard / SR-29 SB Ramp is deficient under all scenarios, and Lakeport Boulevard / Bevins Street is deficient under all scenarios.

The proposed project will participate in the cost of off-site improvements through payments to the City and/or County adopted traffic impact fee program. The program's contribution to a transportation improvement funding mechanisms or as a fair share contribution towards a cumulative impacted facility should be

considered sufficient to address the project's fair share towards mitigation measure(s) designed to alleviate cumulative project impacts. Additionally, the proposed project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise, decrease the performance or safety of such facilities. A less than significant impact would occur.

XVII.b) The proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), which state:

> *"(1) Land Use Projects. Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be considered to have a less than significant transportation impact", and*
>
> *"(2) Transportation Projects. Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, a lead agency may tier from that analysis as provided in Section 15152."*

Caltrans was provided with the project land use information to develop 2020 and 2030 model scenarios analyzing without and with project conditions. The goal of these model runs was to determine the project's impact on the region's total VMT. The results of the model runs are provided in Table 23.

Table 23: Total VMT

Scenario	Regional-Wide			Lake County		
	No Project	With Project	Difference	No Project	With Project	Difference
2020	19,593,021	19,578,769	(14,252)	1,411,077	1,367,341	(43,736)
2030	22,133,420	19,603,368	(2,530,052)	1,960,618	1,367,228	(593,390)

Sources: Caltrans Wine Country Travel Demand Model (see Appendix F)

As shown in Table 22, the overall effect of the project reduces the regional VMT. This is expected as the project's land uses are expected to be primarily local-serving reducing regional VMT. Based on the current recommendations from the SB743 VMT Regional Baseline Study (October 2020) that was prepared for the Lake Area Planning Council, the threshold of significance is set at the total VMT budget for the model area; currently this is estimated at approximately 6.5% growth (annualized). Since the proposed project will not increase the regional VMT, the proposed project is not anticipated to have a significant impact on regional VMT.

XVII.c) The roadways adjacent to the proposed project are pre-existing and a change in use is not proposed. The proposed improvements would be designed in accordance to all City standards to ensure the features would be safe and would not substantially increase hazards due to a geometric design feature such as sharp curves or dangerous intersections. No impact would occur.

XVII.d) The proposed project would not result in inadequate emergency access on the existing road system. As the Site and surrounding vicinity are currently developed to meet pertinent design criteria to provide adequate emergency access in accordance with all design standards and requirements, no impact would occur.

MITIGATION MEASURES

No mitigation required.

FINDINGS

The proposed project would have a **Less Than Significant Impact** on Transportation.

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

Thresholds of Significance: The project would have a significant effect on Tribal Cultural Resources if it would cause a substantial adverse change in the significance of a cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Places or in a local register of historical resources as defined in Public Resources Code §5020.1(k), or is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code §5024.1.

DISCUSSION

As discussed under Section V, Cultural Resources, above, a *Cultural Resources Determination of Eligibility and Effect for the Lakeport Hub* was prepared by Peak & Associates, Inc (Peak) on November 13, 2019, to identify and present any archaeological, historical, or cultural resources located within the Area of Potential Effect (APE). Peak conducted a records search (File Number 19-0641) at the Northwest Information Center (NWIC), located on the campus of Sonoma State University, in Rohnert Park, California, which included a review of all study reports on file within a one-quarter mile radius of the project area. A total of 11 previous studies have been completed within the records search radius, with no previous studies conducted within the project area. As provided in the Cultural Resources Report, no cultural resources are documented within the project APE. In addition, review of historic registers and inventories indicate that no historical landmarks or points of interest are present within the project area, nor are there any National Register-listed or eligible properties within a half-mile radius of the project area.

As part of the Cultural Resources Report, Peak contacted the Native American Heritage Commission (NAHC), to request a Sacred Lands File (SLF) search for any resources present within the project area and to request the contact information for the representatives of the Native American Tribes associated with the area. In a

letter response dated October 15, 2019, the NAHC indicated the SLF search returned a positive result and provided the contact information for five (5) local Tribal representatives. In compliance with Assembly Bill (AB) 52, on October 15, 2019, Peak sent a consultation letter to each of the Tribal representatives. The Big Valley Band of Pomo Indians stated they have a "clear interest in the project and looks forward to both consultation and the assignment of cultural monitor(s) during any and all ground disturbance undertaken by the project." As of the date of this Initial Study, no additional responses or other communications have been received from the Native community regarding the project.

Field work was conducted on October 18, 2019, and included a cultural resources inventory of the project area, totaling approximately 15.5 acres. Ground surface visibility was significant due to recent removal of walnut trees and roots on the property. As noted in the Cultural Resources Report, the entire project area was surveyed using intensive survey coverage with transects spaced less than 15 meters apart. Ground visibility was generally good as recent tree removal activities left large areas of exposed sediment scattered across the project area.

There was no evidence of prehistoric or historic period cultural resources present within the project area.

Peak, in their report concluded that the project, as presently designed, would have no impact to important cultural resources from implementation of the project. With the high probability of finding cultural resources on the site, the City would recommend two measures in the event of inadvertent discovery of cultural resources or human remains during project implementation (see Mitigation Measures CULT-1 and CULT-2, below). In response to Big Valley Band of Pomo Indians' request for a cultural monitor to be present on-site during any and all ground disturbance to be undertaken by the project, a third mitigation measure (Mitigation Measure CULT-3) has been included, below.

Copies of the NAHC and Tribal consultation request letters and associated responses are included in Appendix D.

IMPACT ANALYSIS

XVIII.a.i) As discussed under Section V, Cultural Resources, in order for a cultural resource to be deemed "important" under CEQA and thus eligible for listing on the California Register of Historic Resources (CRHR), it must meet at least one of the following criteria (as set forth in Section 5024.1(c) of the Public Resources Code):

1. is associated with events that have made a significant contribution to the broad patterns of California History and cultural heritage; or
2. is associated with the lives of persons important to our past; or
3. embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possess high artistic value; or
4. has yielded or is likely to yield, information important to prehistory or history (ALTA, 2019).

As provided in the Cultural Resources Report, prepared by Peak on November 13, 2019, a total of 11 previous studies have been completed within one-half mile of the Site. Review of historic registers and inventories indicate that no historical landmarks or points of interest are present within the project area, nor are there any National Register-listed or eligible properties within a half-mile radius of the project area. The field survey, conducted on October 18, 2019, also did not reveal any historical resources within the project area (Peak, 2019). No impact would occur.

XVIII.a.ii) Peak, in their Cultural Resources Report, dated November 13, 2019, concluded that the project, as presently designed, is not anticipated to have an adverse effect on cultural resources. During the field survey,

no cultural or archaeological resources were identified. A complete, intensive, inspection of the proposed project site was performed, with transects no wider than fifteen meters. Ground visibility was generally good as recent tree removal activities left large areas of exposed sediment scattered across the project area. There was no evidence of prehistoric or historic period cultural resources present within the project area. (Peak, 2019).

In addition, per correspondence received from the Big Valley Band of Pomo Indians, dated October 15, 2019, the Tribe expresses "clear interest in the project and looks forward to both consultation and the assignment of cultural monitor(s) during any and all ground disturbance undertaken by the project." (Peak, 2019). Although no archaeological resources were identified during the Site survey, it does not preclude the possibility of such resources, including cultural or Tribal cultural resources or human remains, existing within the project area. Due to the potential for unrecorded Native American and archaeological resources and human remains at the Site, Peak outlines the prescribed protocol in the event inadvertent archaeological discovery(ies) are made, including the discovery of human remains (see Mitigation Measures CULT-1 and CULT-2). In addition, in response to the Big Valley Band of Pomo Indians' request for archaeological monitoring during all ground disturbing activities on-site, this request has been included as Mitigation Measure CULT-3). With mitigation incorporated, a less than significant impact would occur.

MITIGATION MEASURES

Refer to Mitigation Measures CULT-1 through CULT-3 in Section V, Cultural Resources, above.

FINDINGS

The proposed project would have a **Less Than Significant Impact with Mitigation Incorporated** on Tribal Cultural Resources.

XVIX. UTILITIES AND SERVICE SYSTEMS. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater 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?	☐	☐	☐	☒

THRESHOLDS OF SIGNIFICANCE: The project would have a significant effect on utilities and service systems if it would require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects; not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years; result in a determination by the wastewater treatment provider, which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments; 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; or not comply with federal, State, and local management and reduction statutes and regulations related to solid waste.

DISCUSSION

The City of Lakeport Public Works Department serves the incorporated Lakeport community. The Department consists of several divisions which are responsible for water, sewer, underground utilities (installation and maintenance), storm drain system maintenance, and public park maintenance and operations.

Water Service

The Water Division continuously monitors the quality of the water that is provided to Lakeport's water customers and holds the responsibility of providing safe drinking water as its highest priority. The Water Division operates and maintains four wells, a surface water treatment facility, and distribution system to individual meters. The Division also works with developers and customers on water service issues during project design, during service installation and to address future needs. None of the grading that occurs along the project Site would involve reconstruction of the water main or displacement of any of the existing water service utilities. The proposed project is not expected to impact these existing utilities.

Sewer Service

The Sewer Division of the Lakeport Public Works Department is responsible for the safe collection, treatment, and disposal of sewage and wastewater generated by residential, commercial and industrial customers inside the City of Lakeport. All of the City's wastewater activities are done in a manner compliant with State and County health and safety regulations. The primary directive of the Sewer Division is to ensure that Lakeport's streams, waterways and Clear Lake are free from disease-causing bacteria and viruses that are harmful to the public health. The Lakeport sewer system involves approximately 2,200 connections, serving over 5,000 customers, which accounts for approximately eight percent of the entire population of Lake County. The Division operates and maintains nearly 40 miles of sewer main lines, eight sewer lift stations, and a secondary treatment and disposal facility (City Public Works, Sewer Division, n.d.).

Additionally, in 2018, Lakeport adopted the Sewer System Management Plan (SSMP). The SSMP is a document that describes the activities in which a wastewater agency engages to manage its collection system effectively. The SSMP is intended to meet the requirements of both the Central Valley Regional Water Quality Control Board (CVRWQCB) and the Statewide General Waste Discharge Requirements GWDR. The State Water Resource Control Board (SWRCB) adopted Water Quality Order No. 2006- 0003-DWQ at its meeting on May 2, 2006, which required all public wastewater collection system agencies in California with sewer systems greater than one mile in length to be regulated under GWDR.

The project includes extending water and sewer systems to serve the project. Existing water lines along Todd Road and Parallel Drive are adequate to serve the project. The existing wastewater line along Parallel Drive provides connectivity for sewer lines serving the project. The project, as proposed, would not include any updates to the utilities managed by the Sewer Division.

Storm Drainage System/Wastewater

The Streets Division of the City of Lakeport Public Works Department provides for the maintenance and minor construction of all City streets, curb, gutter, drainage systems structures, and right-of-way improvements. This includes asphalt overlays and repairs, street signs, pavement markings, culvert maintenance and replacement, and other street related projects. The Streets Division also provides many additional public service functions, including providing traffic control devices for parades and other special events. The wastewater operations and service entity is governed by a Board of Directors, which also acts as the City Council (City Public Works, Streets Division, n.d.).

Within the Streets Division there is the Underground Utility Construction staff which installs and maintains new and existing water and sewer systems to private property, and within dedicated easements throughout the City. This division works on emergency water breaks and sewer stoppages and schedules repair or replacement of water distribution and collection systems deficiencies.

The project would require significant grading of the property, that would include modifying the existing topography of the property with no significant export of materials. All grading for the property, which includes all three phases of the project, would be completed at the time of the original grading permit for the property. The grading plan includes grading the southern portion of the property down, moving that material to the lower areas on the northern portion of the property. The grading would leave a steeper slope along the Todd Road frontage, as well as between some of the proposed parcels. The project would require the placement of a storm drain through the property to address historic offsite stormwater flows on the property. The project includes an onsite stormwater detention facility in the center of the property that provides onsite stormwater storage and recharge addressing the increase in impervious surfaces associated with the proposed improvements. The stormwater system located in the center of the property would serve all nine parcels.

According to the Sewer Lift Pump Station map provided by the City of Lakeport Public Works Department, there is a sewer lift / pump station approximately 0.5 miles east of the proposed project site. The closest station is near S. Main Street (City Public Works, Utilities Map, 2019). The project does not entail reconstruction or grading of any existing sewer lines and no significant increase in the amount of sewage is expected.

Solid Waste Service

Lakeport Disposal provides solid waste and recycling collection services to commercial, residential, and industrial customers within the incorporated limits of Lakeport. The nearest active landfill is Eastlake Landfill (17-AA-0001) in Clearlake, California, located approximately 28 miles from the project Site. The Eastlake Landfill has a daily permitted disposal of approximately 200 tons per day. Furthermore, the Eastlake Landfill has a maximum permitted capacity of 6.05 million cubic yards and a remaining capacity of approximately 2.86 million cubic yards. The Eastlake Landfill is expected to remain active for another five years, until the year 2023 (CalRecycle, 2018). Solid waste generated by the proposed project during construction activities would be collected and transported to an active and permitted landfill.

IMPACT ANALYSIS

XVIX.a) There is sufficient water supply available to serve the project, as no land use changes or re-zoning is proposed. The project would not require the construction or expansion of any new water or wastewater facilities and the proposed commercial use has been anticipated by the City's adopted planning documents. Water usage for the construction and implementation of the project would be minimal and existing entitlements and resources have the capacity to serve any water needs for the project. Electric power: The project will require electric power, natural gas, and telecommunications; however, no impact these utilities is expected.

XVIX.b-c) As discussed above, the water required for the project has been planned for by the City's adopted planning documents. Water usage for the construction and implementation of the project would be minimal and existing entitlements and resources have the capacity to serve any water needs for the project and have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. The project site is currently served by the City of Lakeports Water Service District for municipal water service. There are no planned residential developments in the project area and thus the population is not expected to increase as a result of the project. Therefore, the proposed project would not require additional or expanded infrastructure relating to municipal water or wastewater treatment. The projected water use for the proposed project is within the existing allocation and would not require new or expanded entitlements. There is a minimal increase in wastewater as a result of the project. A less than significant impact would occur.

XVIX.d-e) The project Site is currently vacant and would be served by a landfill (Eastlake Landfill) with sufficient permitted capacity to accommodate the project's anticipated solid waste disposal needs at full project build-out. A significant amount of solid waste would not be anticipated under the project and all solid waste generated under the project would be disposed of in accordance to all federal, State, and local statutes and regulations related to solid waste. Additionally, the proposed would not negatively impact the provision of solid waste services or impair the attainment of solid waste reduction goals. A less than significant impact would occur.

XVIX.f) Disposal of construction waste would comply with federal, State, and local statutes and regulations related to solid waste. As mentioned above, solid waste generated by the proposed project during construction activities would be collected and transported to an active and permitted landfill. The nearest active landfill has capacity for the proposed projects generated waste and is expected to remain active for another five years, until the year 2023. No impact would occur as a result of the project.

MITIGATION MEASURES
No mitigation required.

FINDINGS
The proposed project would have a **Less Than Significant Impact** on Utilities and Service Systems.

XX. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) 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 challenges?	☐	☐	☐	☒

THRESHOLDS OF SIGNIFICANCE: The project would have a significant effect on wildfire if it would impair an adopted emergency response plan or emergency evacuation plan; 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; 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; or 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 challenges.

DISCUSSION

The combination of vegetation, topography, climate, and population density create a significant potential for hazards from wildfires within the Lakeport Planning Area. There are many vacant and undeveloped areas within the City and its Sphere of Influence, particularly on the west side of Highway 29 and the northern portions of the City, including mobile home parks. Rugged topography and highly flammable vegetation make residential development potentially unsafe unless adequate fire safety measures are taken (City General Plan, 2009).

The area within the City is served by the Lakeport Fire Protection District/County Fire Protection District. Any location within City limits can be reached within three to five minutes. Locations within the Sphere of Influence can be reached in five to seven minutes. This rapid response time can be attributed to the combination of full-time staff and emergency personnel in the Lakeport Fire Protection District and a large number of volunteers.

The CalFire Fire Hazard Severity Zones Map was developed to guide construction standards for building permits, use of natural hazard disclosure at time of sale, guide defensible space clearance around buildings, set property development standards, and considerations of fire hazard in city and county general plans. The project area is located within a 'Very High' State Responsibility Area hazard zone (CalFire, 2018). According to the CalFire Severity Zone Map, the proposed project area is classified as a non-high severity fire hazard zone.

The proposed project involves subdividing the 15.5-acre parcel to nine parcels for the purpose of developing a commercial center that would include a service station, six to eight restaurants, two retail buildings and a 70-room hotel. The commercial center would include on-site roadways accessing those commercial uses, with parking and landscaping distributed around the property, as well as serving each proposed parcel. The project would be located between Parallel Drive and Todd Road, west of State Highway 29. The site design

contains curb, gutter, sidewalk and paved parking areas. The area surrounding the Site is currently developed with commercial uses and low density residential.

IMPACT ANALYSIS

XX.a) The City of Lakeport has not adopted an emergency response plan. The streets surrounding and adjacent to the project Site are mainly used by the commercial and residential areas in the vicinity of the site and are not main thoroughfares through the City. Construction activities could result in minor delays for emergency vehicles or law enforcement; however, during construction, Parallel Drive would remain open, although one-way controlled traffic may be necessary. This would ensure the passage of emergency and passenger vehicles in the event of an emergency, including wildfire. The project related activities would not be anticipated to significantly impact the capacity of the street system, the project would have a less than significant impact.

XX.b-c) The proposed commercial development, that includes a hotel, restaurants, and commercial retail will be located along Parallel Drive, in close proximity to the onramps to State Route 29. The close proximity of State Route 29 provides a quick access for emergency evacuation and would not exacerbate wildfire risk. The project is in an already developed commercial area, and the addition of commercial development that includes a hotel, restaurants, and commercial retail would not exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Furthermore, the project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, because of runoff, post-fire slope instability, or drainage challenges. Therefore, there would be no impact on wildfire risk or spread of pollutants from such thereafter.

XX.d) Implementation of the project's grading, road, stormwater improvements and commercial development would develop the slopes on the property and project features will be stabilized during construction by use of construction BMPs and will be revegetated once construction is complete. Additionally, implementation of the project's stormwater features would help stabilize the project area from negative impacts related to stormwater runoff, as the project proposes features to better manage, direct, and contain runoff, and has been designed to maintain stormwater flows within the project area. No impact would occur.

MITIGATION MEASURES

No mitigation required.

FINDINGS

The proposed project would have a **Less Than Significant Impact** on Wildfire.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are 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?	☐	☐	☒	☐

THRESHOLDS OF SIGNIFICANCE: The project would have a significant effect on mandatory findings of significance if it would have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory; 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.); or have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.

DISCUSSION

The proposed project involves subdividing a 15.5-acre parcel into nine parcels for the purpose of developing a commercial center that would include a service station, six to eight restaurants, two retail buildings and a 70-room hotel.

IMPACT ANALYSIS

XXI.a) The analyses of environmental issues contained in this Initial Study indicate that the proposed Project is not expected to have substantial impact on the environment or on any resources identified in the Initial Study. Mitigation measures have been incorporated as described in each impact area to reduce all potentially significant impacts to *less than significant*.

XXI.b) 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. Due to the nature of the Project and consistency with environmental policies, incremental contributions to impacts are considered less than cumulatively considerable. All Project- related impacts were determined to be either less than significant, or less than significant after mitigation. The proposed Project would not contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., increase in population could lead to an increased need for housing, increase in traffic, air pollutants, etc.). Due to

buildout of the area and existing land constraints, it is not anticipated that further substantial commercial or residential development will occur in the area in the foreseeable future. As such, Project impacts are not considered to be cumulatively considerable given the lack of proposed new development in the area and the insignificance of Project-induced impacts. The impact is therefore *less than significant*.

XXI.c) The project would not generate any potential direct or indirect environmental effect that would have a substantial adverse impact on human beings including, but not limited to, exposure to geologic hazards, air quality, water quality, traffic hazards, noise, and fire hazards. With mitigation incorporated, all potential impacts associated with the proposed project would be reduced to a less-than-significant level. A less than significant impact would occur.

MITIGATION MEASURES

No mitigation required.

FINDINGS

The proposed project would have a **Less Than Significant Impact** on Mandatory Findings of Significance.

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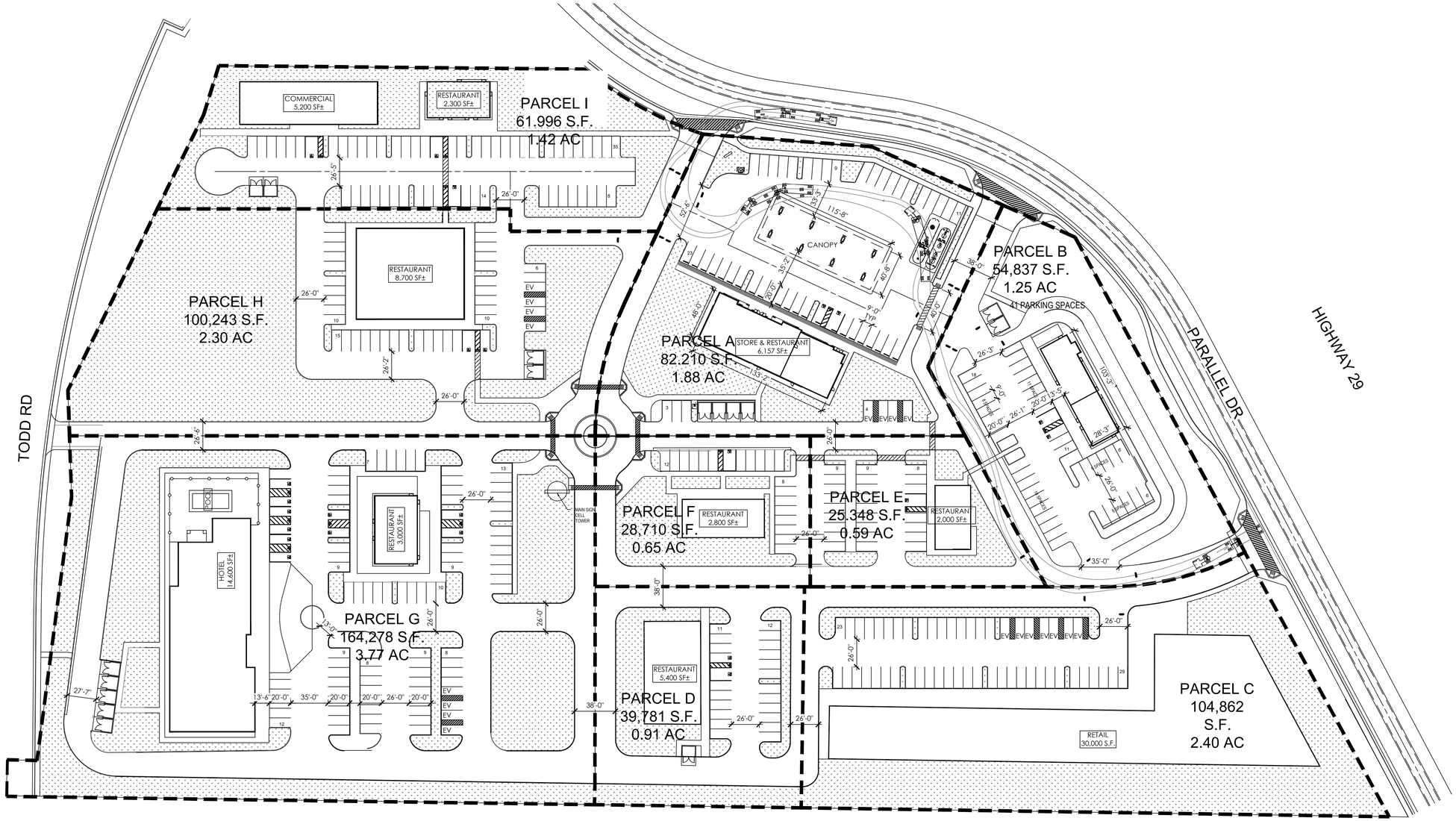
FIGURES

N

Project Locator - 1842 Todd Road
Lakeport, California



01 — **PROPOSED MASTER SITE PLAN**
SCALE: 1"=50'

N

TOTAL AREA= ±674,308 S.F. (15.48 ACRES)

TOTAL PARKING = 397 SPACES
- ACCESSIBLE PARKING = 18 SPACES
- ELECTRICAL VEHICLES = 19 SPACES
- STANDARD PARKING = 360 SPACES

AGC DESIGN CONCEPT, INC.
AGCDC.COM
28524 Constellation Rd
Valencia, CA 91355
Phone: 661.295.1111

NO.	DATE	REVISIONS	BY

LAKEPORT SHOPPING CENTER

1842 TODD RD
LAKEPORT, CA

PROPOSED MASTER SITE PLAN

consultant job#

master release date

project exe date	master drawn by
09.24.19	EJ

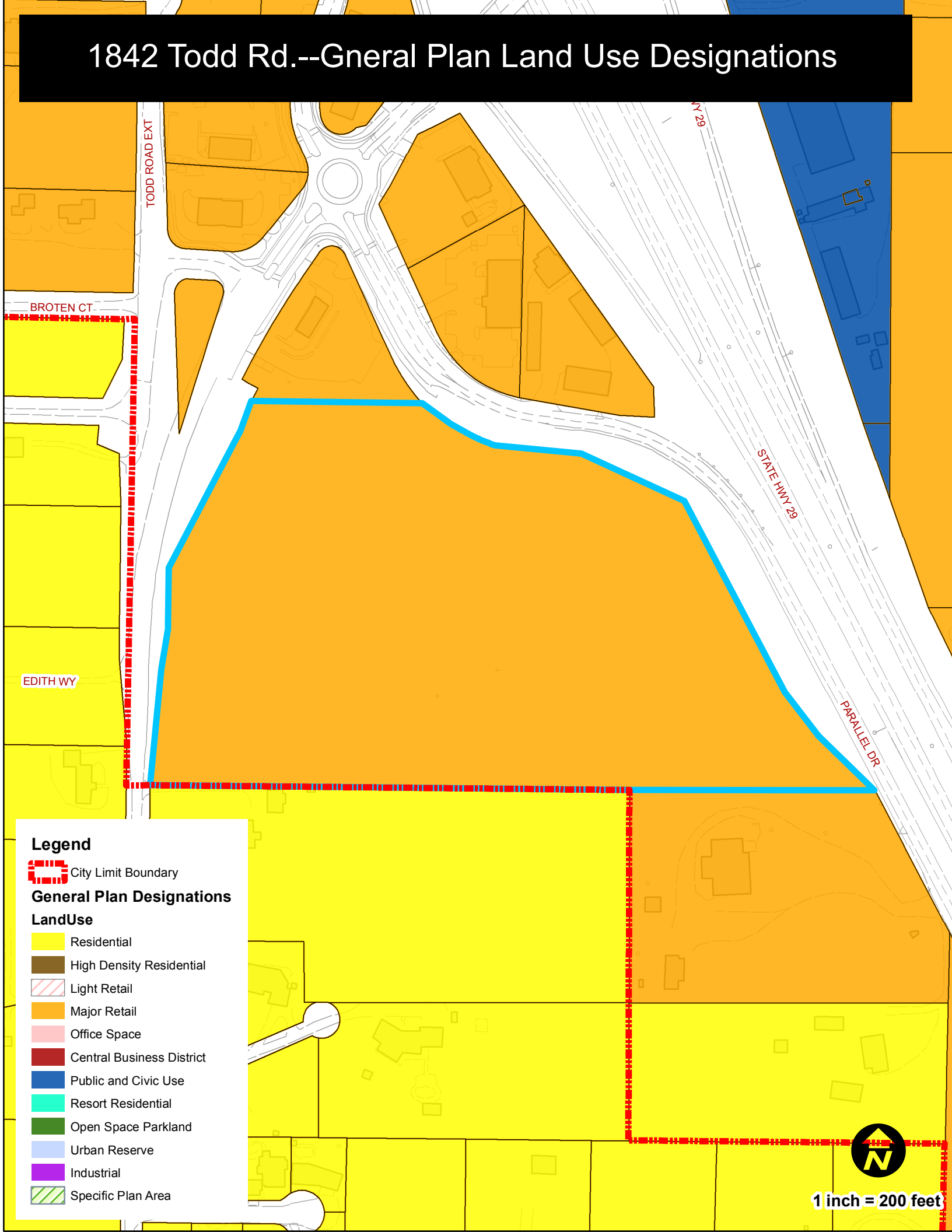
Filename AGC
—

Facility/Project

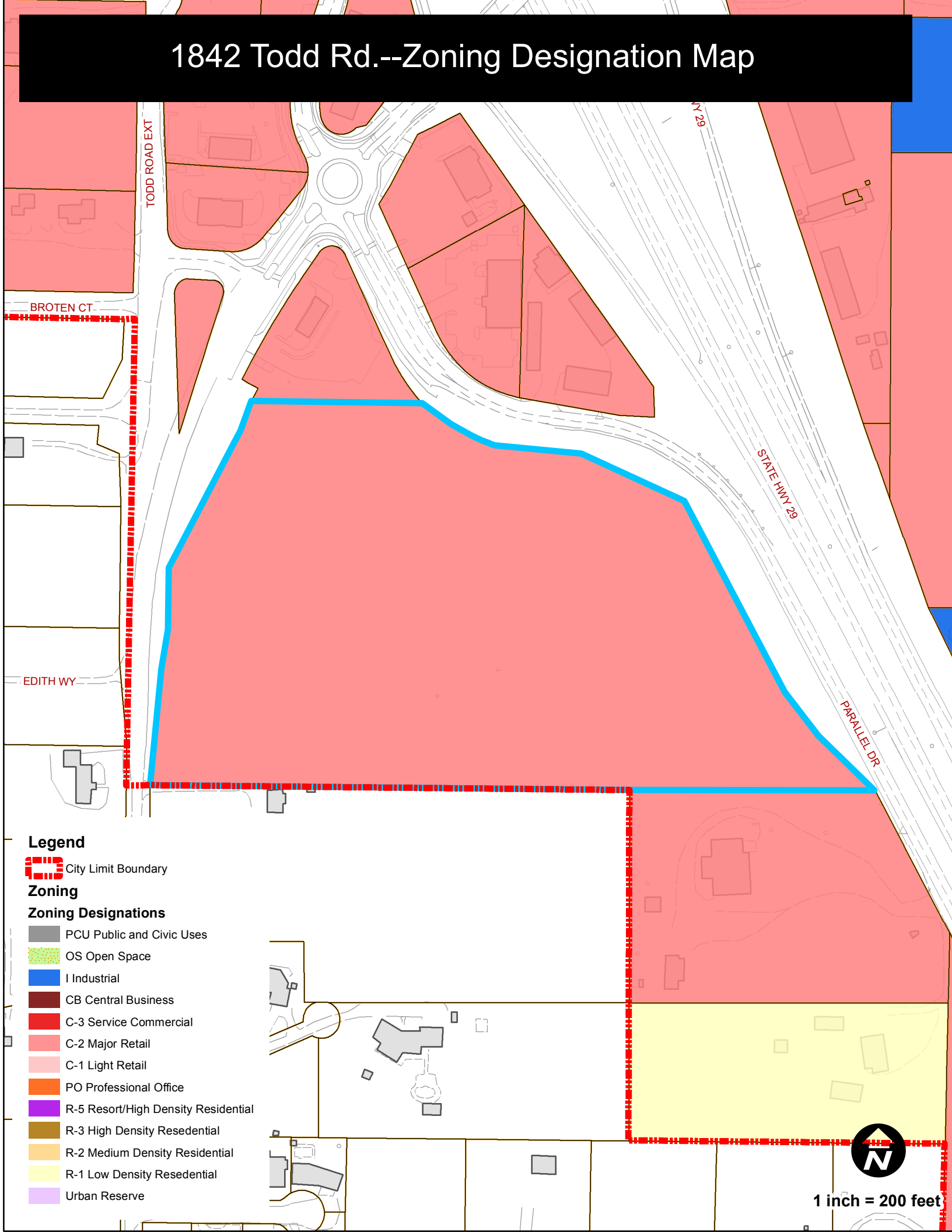
sheet name

CUP–1

1842 Todd Rd.--Gneral Plan Land Use Designations



1842 Todd Rd.--Zoning Designation Map



APPENDIX A

Mitigation and Monitoring Reporting Program (MMRP)

MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) for the City of Lakeport's Lakeport Hub / 1842 Todd Road Project (proposed Project). The MMRP lists mitigation measures recommended in the IS/MND for the proposed Project and identifies monitoring and reporting requirements as well as conditions recommended by responsible agencies who commented on the project.

The first column of the Table identifies the mitigation measure. The second column, entitled "Party Responsible for Implementing Mitigation," names the party responsible for carrying out the required action. The third column, "Implementation Timing," identifies the time the mitigation measure should be initiated. The fourth column, "Party Responsible for Monitoring," names the party ultimately responsible for ensuring that the mitigation measure is implemented. The last column will be used by the City to ensure that individual mitigation measures have been monitored.

Mitigation Measure	Party responsible for implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (Name / Date)
AIR-1 During construction activities, the following Best Management Practices (BMPs) shall be implemented to control dust: • Exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. • All vehicle speeds on unpaved roads shall be limited to 15 miles per hour. • All roadways, driveways, and sidewalks shall be paved as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. • Idling time shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations (CCR). Clear signage shall be provided for construction workers at all access points. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.	Construction Contractor	During construction activities	Project Applicant	

• A publicly visible sign shall be posted with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours of a complaint or issue notification.				
AIR-2 Before a construction permit is issued for the proposed project, the project applicant, project sponsor, or construction contractor shall submit construction emissions minimization plans to the City of Lakeport for review and approval. The construction emissions minimization plans shall provide reasonably detailed compliance with the following requirements: (1) Where portable diesel engines are used during construction, all off-road equipment shall have engines that meet either EPA or CARB Tier 4 Final off-road emission standards except as otherwise specified herein. If engines that comply with Tier 4 Final off-road emission standards are not commercially available, then the construction contractor shall use the next cleanest piece of off-road equipment (e.g., Tier 4 Interim) that is commercially available. For purposes of this project design feature, "commercially available" shall mean the equipment at issue is available taking into consideration factors such as (i) critical-path timing of construction; and (ii) geographic proximity to the project site of equipment. If the relevant equipment is determined by the project applicant to not be commercially available, the contractor can confirm this conclusion by providing letters from at least two rental companies for each piece of off-road equipment that is at issue.	Project Applicant	Prior to construction activities	Project Applicant	
BIO-1 Due to the presence of known sensitive bird species within the Site's area, any proposed heavy vegetation (limbs over 6 inches in diameter) shall be conducted in the non-nesting season (August 31-February 1). However, should removal of heavy vegetation be proposed during the nesting season (February 1-August 31), a qualified biologist shall determine the presence of vulnerable nests (within a distance of 100 feet for passerines and 300 feet for raptors from the heavy vegetation removal). Any active nests within the above-mentioned distances shall be allowed to complete their	Project Applicant	Prior to & during construction activities	Project Applicant	

nesting or until the qualified biologist determines the nests are no longer active before the heavy vegetation shall be allowed to occur.				
BIO-2 Prior to the issuance of the grading permit, the applicant shall provide a signed agreement for a wetland habitat mitigation bank reflecting the loss of the 0.33-acre wetland swale. Said agreement shall be approved by the Army Corp of Engineers. The mitigation bank shall be in place prior to the issuance of the grading permit.	Project Applicant	Prior to & during construction activities	Project Applicant	
CULT-1 If previously unidentified cultural resources are encountered during project implementation, any persons on-site shall avoid altering the materials and their stratigraphic context. A qualified professional archaeologist shall be contacted to evaluate the situation. Project personnel shall not collect cultural resources. [Prehistoric resources include, but are not limited to, chert or obsidian flakes, projectile points, mortars, pestles, and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include stone or abode foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.]	Project Applicant	Prior to & during construction activities	Project Applicant	
CULT-2 If human remains are encountered on-site, all work must stop in the immediate vicinity of the discovered remains and the County Coroner and a qualified archaeologist must be notified immediately so that an evaluation can be performed. If the remains are deemed to be Native American and prehistoric, the Native American Heritage Commission (NAHC) must be contacted by the Coroner so that a "Most Likely Descendant" can be designated and further recommendations regarding treatment of the remains is provided.	Project Applicant	Prior to & during construction activities	Project Applicant	
CULT-3 A cultural monitor from the Scotts Valley and/or Big Valley Band of Pomo Indians shall be present on-site for any and all ground disturbance to be completed under the project. The project contractor shall consult with the Tribe at least three weeks prior to the start of any ground disturbing activities and shall also provide the Tribe with the anticipated construction schedule and plans.	Project Applicant	Prior to and during construction	Project Applicant	

GEO-1 In the event that fossils or fossil-bearing deposits are discovered during project construction, the contractor shall notify a qualified paleontologist to examine the discovery and excavations within 50 feet of the find shall be temporarily halted or diverted. The area of discovery shall be protected to ensure that fossils are not removed, handled, altered, or damaged until the Site is properly evaluated, and further action is determined. The paleontologist shall document the discovery as needed, in accordance with Society of Vertebrate Paleontology standards (Society of Vertebrate Paleontology 1995), evaluate the potential resource, and assess the significance of the finding under the criteria set forth in CEQA Guidelines Section 15064.5. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the project proponent determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the project based on the qualities that make the resource important. The plan shall be submitted to the City of Lakeport for review and approval prior to implementation.	Project Applicant	During Construction	Project Applicant	
NOISE-1 Construction noise shall be limited through operational standards. Construction activities shall be limited to between the hours of 7:00AM and 7:00PM Monday through Friday and between 8:00AM and 7:00PM on Saturdays and Sundays. The City may allow construction between 7:00PM and 7:00AM on any day if it can be demonstrated that noise would not adversely impact the neighborhood, or in the event of necessity as determined by the Building Official. Neighboring landowners shall be notified of the anticipated construction schedule prior to the commencement of construction activities.	Project Applicant	During Construction	Project Applicant	
NOISE-2 All equipment driven by internal combustion engines shall be equipped with mufflers, which are in good condition and appropriate for the equipment. The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where technology exists. At all times during project construction, stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from residences. Unnecessary idling of internal combustion engines shall be prohibited. Construction staging areas shall be established at	Project Applicant	During Construction	Project Applicant	

locations that would create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project Site during all project construction activities, to the extent feasible. The construction contractor shall designate a "noise disturbance coordinator" who shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall be responsible for determining the cause of the noise complaint (e.g., starting too early, poor muffler, etc.) and instituting reasonable measures as warranted to correct the problem. A telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.				

APPENDIX B

Air Quality, Health Risk Analysis, Greenhouse Gas, and Energy Technical Memorandum

To:	Crawford & Bowen Planning, Inc. Attn: Emily Bowen 113 N Church St. #302 Visalia, CA 93291	From:	Johnson Johnson and Miller Air Quality Consulting Services Richard Miller, Air Quality and Climate Change Specialist rmiller.jjm.environmental@gmail.com

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Lakeport Shopping Center Project

Date: October 14, 2021

Subject: Air Quality, Health Risk Analysis, Greenhouse Gas, and Energy Technical Memorandum

This Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report was prepared to evaluate whether the estimated criteria air pollutant, ozone precursor, toxic air contaminant (TAC), and/or greenhouse gas (GHG) emissions generated from construction and/or operation of the proposed Lakeport Shopping Center Project (proposed project) would cause significant impacts to air resources in the project area. The respective analyses were conducted within the context of the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] § 21000, et seq.). Since the Lake County Air Quality Management District (LCAQMD) has no project-level thresholds of significance for the Lake County Air Basin (LCAB), thresholds of significance from the Bay Area Air Quality Management District (BAAQMD) were referenced. The analysis methodology follows the BAAQMD recommendations for the quantification of emissions and evaluation of potential impacts on air resources.

Project Location and Description

The project site covers approximately 15.48 acres located in the vicinity of Lakeport Blvd. and Highway 29 in Lakeport, California. The applicant is proposing construction of 16 pump gas station with a 3,200 square foot convenience market, 3,200 square foot restaurant, 1,850 square foot coffee shop with drive-thru, 1,850 square foot retail space, 70 room hotel, and 46,630 square foot commercial shopping/retail space on the currently vacant lot. Parking space is included as needed to accommodate project operations.[1]

The site plan for the proposed project is overlaid at the project location in Figure 1.

[1] For the purposes of estimating emissions, it was assumed that paved surface parking lots would cover up to 12.21 acres of the project site.

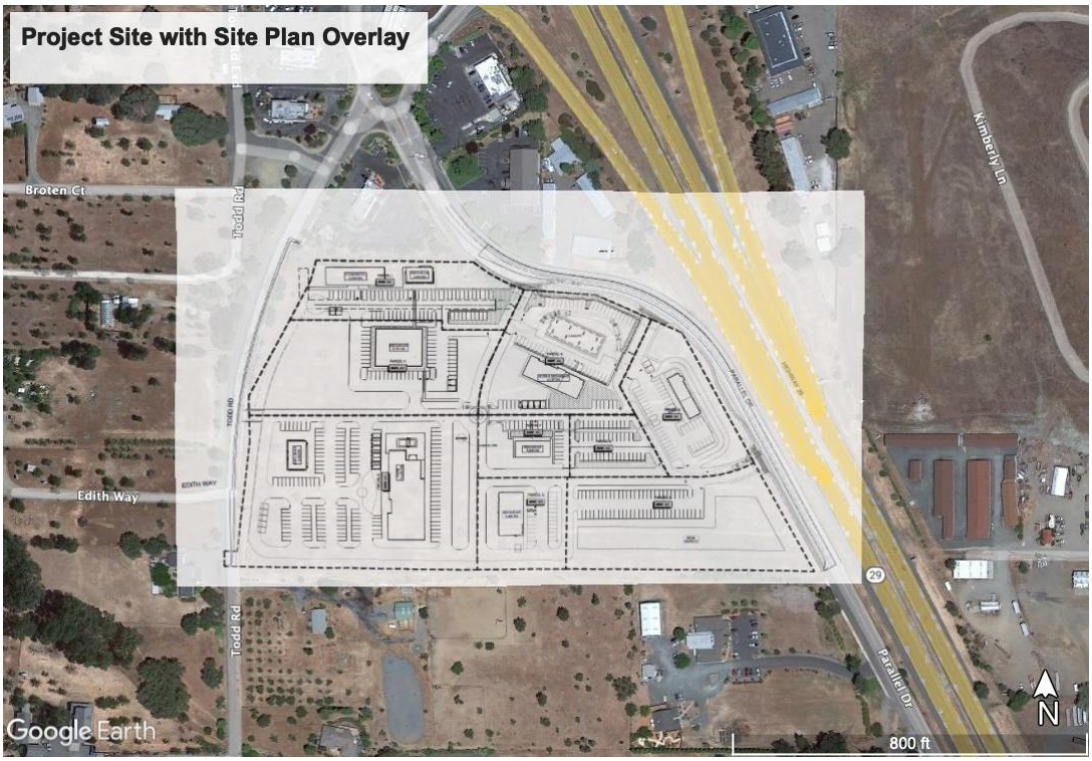

Figure 1 – Proposed Project Site Plan Overlay

Local Setting

The City of Lakeport adopted its 2025 General Plan in August of 2009. The 2009 General Plan[2] includes the following applicable goals and policies related to improving air quality or increasing energy conservation that may also co-benefit climate change impacts:

Air Quality

- **Objective C 3:** To maintain good air quality in Lakeport and continue to have attainment status.
    - **Policy C 3.1: High Air Quality Standard.** Maintain a high air quality standard in Lakeport to protect the public health.
    - **Policy C 3.2: Sensitive Receptors.** Ensure that the air quality impacts of projects located in proximity to sensitive receptors are adequately mitigated. Discourage land uses producing adverse air quality impacts from locating near sensitive receptors.
    - **Policy C 3.3: Naturally Occurring Asbestos.** The City shall protect public health from naturally occurring asbestos by requiring mitigation measures to

[2] Lakeport General Plan. 2009. City of Lakeport General Plan 2025. August. Website: https://www.cityoflakeport.com/community_development/_planning/general_plan.php. Accessed August 18, 2021.

control dust and emissions during construction, grading, quarrying, or surface mining operations.[3]

Energy Conservation

- **Objective C 5:** To reduce demand for electricity and increase energy efficiency.
    - **Policy C 5.1: Energy Efficiency.** Reduce energy waste and peak electricity demand through energy efficiency and conversation in homes and businesses.
    - **Policy C 5.2: City Use of Green Technologies.** Integrate energy efficiency, conversation, and green building practices into all City functions.
    - **Objective C 6:** To increase renewable resource use.
    - **Policy C 6.1: Renewable Energy Resources.** Preserve opportunities for development of renewable energy resources.
    - **Policy C 6.2: Renewable Technologies Incentives.** Facilitate renewable technologies through streamlined planning and development rules, codes and processing, and other incentives. [4]

Modeling Parameters and Assumptions

The following modeling parameters and assumptions were used to generate criteria air pollutant (including precursors), Toxic Air Contaminants (TACs), and greenhouse gas (GHG) emissions for the Lakeport Shopping Center Project.

Air Pollutants and GHGs Assessed

Criteria Pollutants Assessed

The following criteria air pollutants were assessed in this analysis: reactive organic gases (ROG), oxides of nitrogen (NO_X), carbon monoxide (CO), sulfur oxides (SO_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.

The project does not contain sources that would produce substantial quantities of SO_X emissions during construction or operation. Modeling conducted for the project is provided in Attachment A and includes SO_2 emission estimates. No further analysis of SO_2 is required.

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),

[3] Lakeport General Plan. 2009.. Conservation Element. August. Website: https://www.cityoflakeport.com/VII%20-%20Conservation%20Element.pdf. Accessed August 18, 2021.
[4] Lakeport General Plan. 2009.. Conservation Element. August. Website: https://www.cityoflakeport.com/VII%20-%20Conservation%20Element.pdf. Accessed August 18, 2021.

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 retail 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.

Toxic Air Containments Assessed

Diesel particulate matter (DPM)

Studies indicate that diesel particulate matter (DPM) poses the greatest health risk among airborne TACs. The California Air Resources Board (CARB) conducted a 10-year research program that demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic long-term health risk.

DPM is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases: gas and particle. The gas phase is composed of many of the urban hazardous air pollutants, such as acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde, and polycyclic aromatic hydrocarbons. The particle phase also has many different types of particles that can be classified by size or composition. The size of diesel particulates that are of greatest health concern are those that are in the categories of fine and ultra-fine particles. The composition of these fine and ultra-fine particles may be composed of elemental carbon with adsorbed compounds such as organic compounds, sulfate, nitrate, metals, and other trace elements. Diesel exhaust is emitted from a broad range of diesel engines, such as the on-road diesel engines of trucks, buses, and cars, and off-road diesel engines that include locomotives, marine vessels, and heavy-duty equipment.[5]

For purposes of this analysis, DPM exhaust emissions are represented as particulate matter that is 10 micrometers in diameter and smaller (PM_{10}).

Benzene

Out of the toxic compounds emitted from gasoline stations, benzene, ethylbenzene, and naphthalene have cancer toxicity values. However, benzene is the TAC which drives the risk, accounting for 85 percent of cancer risk from gasoline vapors. Furthermore, benzene constitutes more than three to four times the weight of gasoline than ethylbenzene and naphthalene, respectively.[6] Therefore, ethylbenzene and naphthalene have not been modeled and are instead considered significant in the case that benzene emissions are significant.

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[5] California Air Resources Board (CARB). 2019. Overview: Diesel Exhaust and Health. Website: https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. Accessed October 8, 2021.

[6] South Coast Air Quality Management District (SCAQMD). 2015. Risk Assessment Procedures for Rules 1401, 1401.1, and 212. Website:http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1401/appx_1401riskassessproc_071517nw.pdf. Accessed October 7, 2021.

Additionally, there are substances emitted from gasoline stations, such as toluene and xylene which possess acute adverse health effects (though not cancer risk). However, it is not until the benzene concentrations are more than two orders of magnitude above 10 in one million that the emissions of toluene and xylene begin to cause adverse health effects.[7] Therefore, toluene and xylene emissions have not been modeled and are instead considered significant in the case that benzene concentrations are identified at two orders of magnitude above 10 in one million cancer risk.

Asbestos

Asbestos is a fibrous mineral that both naturally occurs in ultramafic rock (a rock type commonly found in California) and is used as a processed component of building materials. Because asbestos has been proven to cause a number of disabling and fatal diseases, such as asbestosis and lung cancer, it is strictly regulated either based on its natural widespread occurrence or in its use as a building material. In the initial Asbestos National Emission Standards for Hazardous Air Pollutants rule promulgated in 1973, a distinction was made between building materials that would readily release asbestos fibers when damaged or disturbed (friable) and those materials that were unlikely to result in significant fiber release (non-friable). The U.S. Environmental Protection Agency (EPA) has since determined that, when severely damaged, otherwise non-friable materials can release significant amounts of asbestos fibers. Asbestos has been banned from many building materials under the Toxic Substances Control Act, the Clean Air Act, and the Consumer Product Safety Act. Naturally occurring asbestos (NOA) is known to occur in many parts of California and is commonly associated with ultramafic or serpentinite rock.

Model Selection

Criteria Pollutants and GHG Emissions—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.

[7] California Air Pollution Control Officers Association (CAPCOA). 1997. Gasoline Service Station Industrywide Risk Assessment Guidelines. Website: https://www.co.monterey.ca.us/home/showdocument?id=22409. Accessed October 8, 2021.

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 project-generated emissions from construction and operations of the proposed project.

Construction DPM emissions (represented as PM_{10} exhaust) were estimated using CalEEMod Version 2020.4.0. Emissions were estimated for the unmitigated scenario and a scenario with clean construction equipment engines (Tier 4 mitigated). Equipment tiers refer to a generation of emission standards established by the EPA and CARB that apply to diesel engines in off-road equipment. The "tier" of an engine depends on the model year and horsepower rating; generally, the newer a piece of equipment is, the higher the tier level the equipment is likely to have. Excluding engines greater than 750 horsepower, Tier 1 engines were manufactured generally between 1996 and 2003. 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.

Toxic Air Containments—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 Ukiah Municipal Airport station, located approximately 16 miles northwest of the project area. The meteorological data used was preprocessed for use with AERMOD by CARB and included data for the years 2009 to 2014; 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 1.5 meters above ground level.

For the construction period, construction emissions were assumed to be distributed over the project site with a working schedule of eight hours per day and five days per week. Emissions were adjusted by a factor of 4.2 to convert for use with a 24-hour-per-day, 365 day-per-year averaging period. Project operations were assessed assuming a 24-hour-per-day, and seven

day-per-week schedule. Detailed parameters and complete calculations are contained in Attachment B.

Assumptions

Construction Modeling Assumptions

Schedule

The proposed project would require various tasks including site preparation, grading, building construction, architectural coatings, and paving. Table 1 shows the anticipated construction schedule. The construction schedule utilized in the analysis represents 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 exact start and end times for phases 3 and 4 are currently unknown. As such, both phases were combined into a single phase (identified as phase 3 in Table 1) and assumed to begin immediately following the completion of phase 2 in order to provide a conservative estimate of air impacts. 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 1: Project Construction Schedule

Construction Task	Start Date	End Date	Workdays
Phase 1			
Site Preparation	5/1/2022	5/6/2022	5
Grading	5/7/2022	5/18/2022	8
Paving	5/19/2022	6/13/2022	18
Building Construction	6/14/2022	10/6/2022	83
Architectural Coating	10/7/2022	11/1/2022	18
Phase 2			
Site Preparation	1/1/2023	1/6/2023	5
Grading	1/7/2023	1/18/2023	8
Paving	1/19/2023	2/13/2023	18
Building Construction	2/14/2023	9/6/2023	147
Architectural Coating	9/7/2023	10/2/2023	18
Phase 3			
Site Preparation	10/3/2023	10/16/2023	10
Grading	10/17/2023	11/13/2023	20
Paving	11/14/2023	12/11/2023	20

Construction Task	Start Date	End Date	Workdays
Building Construction	12/12/2023	10/28/2024	230
Architectural Coating	10/29/2024	11/25/2024	20
Source: CalEEMod Output (Attachment A).			

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 is shown in Table 2.

Table 2: 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	8.0	247	0.40	Diesel
	Tractors/Loaders/Backhoes	4	8.0	97	0.37	Diesel
Grading	Excavators	1	8.0	158	0.38	Diesel
	Graders	1	8.0	187	0.41	Diesel
	Rubber Tired Dozers	1	8.0	247	0.40	Diesel
	Tractors/Loaders/Backhoes	3	8.0	97	0.37	Diesel
Paving	Cement and Mortar Mixers	2	6.0	9	0.56	Diesel
	Pavers	1	8.0	130	0.42	Diesel
	Paving Equipment	2	6.0	132	0.36	Diesel
	Rollers	2	6.0	80	0.38	Diesel
	Tractors/Loaders/Backhoes	1	8.0	97	0.37	Diesel
Building Construction	Cranes	3	6.5	231	0.29	Diesel
	Forklifts	9	7.4	89	0.20	Diesel
	Generator Sets	3	7.4	84	0.74	Diesel
	Tractors/Loaders/Backhoes	6	9.7	97	0.37	Diesel
	Welders	3	7.4	46	0.45	Diesel
Architectural Coating	Air Compressors	1	6.0	78	0.48	Diesel
Phase 2						
Site Preparation	Rubber Tired Dozers	3	8.0	247	0.40	Diesel
	Tractors/Loaders/Backhoes	4	8.0	97	0.37	Diesel
Grading	Excavators	1	8.0	158	0.38	Diesel
	Graders	1	8.0	187	0.41	Diesel

Construction Task	Equipment Type	Pieces of Equipment	Usage (hours/day)	Horsepower	Load Factor	Fuel Type
	Rubber Tired Dozers	1	8.0	247	0.40	Diesel
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Paving	Cement and Mortar Mixers	2	6.0	9	0.56	Diesel
	Pavers	1	8.0	130	0.42	Diesel
	Paving Equipment	2	6.0	132	0.36	Diesel
	Rollers	2	6.0	80	0.38	Diesel
	Tractors/Loaders/Backhoes	1	8.0	97	0.37	Diesel
Building Construction	Cranes	2	5.5	231	0.29	Diesel
	Forklifts	6	6.3	89	0.20	Diesel
	Generator Sets	2	6.3	84	0.74	Diesel
	Tractors/Loaders/Backhoes	6	5.5	97	0.37	Diesel
	Welders	2	6.3	46	0.45	Diesel
Architectural Coating	Air Compressors	1	6.0	78	0.48	Diesel
Phase 3						
Site Preparation	Rubber Tired Dozers	3	8.0	247	0.40	Diesel
	Tractors/Loaders/Backhoes	4	8.0	97	0.37	Diesel
Grading	Excavators	1	8.0	158	0.38	Diesel
	Graders	1	8.0	187	0.41	Diesel
	Rubber Tired Dozers	1	8.0	247	0.40	Diesel
	Tractors/Loaders/Backhoes	3	8.0	97	0.37	Diesel
Paving	Pavers	2	8.0	130	0.42	Diesel
	Paving Equipment	2	8.0	132	0.36	Diesel
	Rollers	2	8.0	80	0.38	Diesel
Building Construction	Cranes	1	7.0	231	0.29	Diesel
	Forklifts	3	8.0	89	0.20	Diesel
	Generator Sets	1	8.0	84	0.74	Diesel
	Tractors/Loaders/Backhoes	3	7.0	97	0.37	Diesel
	Welders	1	8.0	46	0.45	Diesel
Architectural Coating	Air Compressors	1	6.0	78	0.48	Diesel
Source: CalEEMod Output (Attachment A).						

Vehicles Trips

Table 3 provides a summary of the construction-related vehicle trips. CalEEMod default values were used to estimate the number of construction-related vehicle trips.

The default values for hauling trips are based on the assumption 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 Lake County and an urban setting were used for the worker (10.8 miles), vendor (7.3 miles), and hauling (20 miles) trips.

Table 3: Construction Vehicle Trips

Construction Task	Worker Trips per Day	Vendor Trips per Day	Total Haul Truck Trips
Phase 1			
Site Preparation	18	0	14
Grading	15	0	12
Building Construction	20	4	16
Paving	58	23	48
Architectural Coating	12	0	2
Phase 2			
Site Preparation	18	0	14
Grading	15	0	12
Building Construction	20	4	16
Paving	106	41	36
Architectural Coating	21	0	2
Phase 3			
Site Preparation	18	0	14
Grading	15	0	12
Building Construction	15	4	12
Paving	150	60	18
Architectural Coating	30	0	2

Notes:
Additional hauling trips were added to each phase for mobilization/demobilization (two trip per piece of off-road equipment). Additional vendor trips were added to the paving phase to account for delivery of materials.
Source: CalEEMod Output (Attachment A).

Operational 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. Assumptions were based on the accompanying traffic study done for the project.[8] Modeling was completing using the full number of daily trips (7,456), as the traffic study accounted for pass-by trips and did not differentiate between pass-by and internal capture. Pass-by trips are assumed to already be on the local roads; however, unlike internal capture, vehicles making pass-by trips are not necessarily making a single trip to visit multiple land uses within the project site. For the purposes of estimating air pollutant emissions, it is appropriate to account for the project-generated trips that would travel to and from the project site. CalEEMod default trip types were applied in the analysis.

Trip Lengths

The CalEEMod default round trip lengths for an urban setting in Lake County were used in this analysis. Trip lengths are for primary trips. Trip purposes 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.

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). CalEEMod default fleet mixes for Lake County were used in the analysis.

Area Sources

Consumer Products

Consumer products are various solvents used in non-industrial applications, which emit VOCs during their product use. “Consumer Product” means a chemically formulated product used by household and institutional consumers, including but not limited to: detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. It does not include other paint products, furniture coatings, or architectural coatings. CalEEMod includes default consumer product use rates based on building square footage. The default emission factors developed for CalEEMod were used for consumer products associated with parking uses. The general consumer product category was updated based on 2017 CARB VOC inventory data and 2017 population estimates based on the State of California’s Department of Finance demographic projections were used to estimate a Statewide VOC emission factor for 2017. The default general consumer product emission factor is based on 2008 CARB VOC inventory data using the same methodology applied to calculate the updated VOC emission factor for general consumer products.

Architectural Coatings (Painting)

[8] TJW Engineering, Inc. 2021. Lakeport Shopping Center Traffic Impact Analysis. April 26, 2021.

Paints release VOC emissions. The buildings would be repainted on occasion. CalEEMod defaults were used for this purpose.

Landscaping Emissions

CalEEMod estimates 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 2020.4.0. 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 2030 scenario. CalEEMod defaults were used for buildout years.

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.

Other Indirect Emissions (Water Use, Wastewater Use, and Solid Waste)

CalEEMod includes calculations for indirect GHG emissions for electricity consumption, 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.

Additional Information Related to the Health Risk Assessment from Operations

Toxic Air Containments—Benzene

Emissions sources of benzene in the air dispersion model include proposed on-site fuel storage tanks and fuel dispensers. The specific processes associated with fuel storage tanks and fuel

dispensers that emit air toxics include loading, breathing, refueling, and spillage, as described below:

- Loading – Emissions occur when a fuel tanker truck unloads gasoline into the storage tanks. The storage tank vapors, displaced during loading, are emitted through its vent pipe. (A required pressure/vacuum valve installed on the tank vent pipe significantly reduces these emissions.)
- Breathing – Emissions occur through the storage tank vent pipe as a result of temperature and pressure changes in the tank vapor space.
- Refueling – Emissions occur during motor vehicle refueling when gasoline vapors escape through the vehicle/nozzle interface.
- Spillage – Emissions occur from evaporating gasoline that spills during vehicle refueling.

Loading and breathing emissions exit the underground storage tank vent pipe and are thus treated as a point source. The height and diameter of the vent are assumed to be 3.66 meters and 0.05 meters, respectively. Refueling and spillage emissions are modeled as volume sources with a vertical dimension of 5 meters to correspond to the height of the canopy. For refueling, the release height is assumed to be 1 meter to approximate the height of a vehicle fuel tank inlet, whereas spillage emissions are assumed to be released at ground level since nearly all the gasoline from spillage reaches the ground.

The model was run to obtain the peak 24-hour and annual average concentration in micrograms per cubic meter [µg/m3] at nearby sensitive receptors.

The chronic and carcinogenic health risk calculations are based on the standardized equations contained in the U.S. EPA Human Health Evaluation Manual[9] and the Office of Environmental Health Hazard Assessment (OEHHA) Guidance Manual.[10]

An annual throughput of 2 million gallons of gasoline was assumed in the analysis based on project-specific information provided by the project applicant.

[9] United States Environmental Protection Agency (U.S. EPA). 1991. Human Health Evaluation Manual. Website: https://www.epa.gov/sites/default/files/2015-11/documents/defaultExposureParams.pdf. Accessed October 12, 2021.
[10] Office of Environmental Health Hazard Assessment (OEHHA). 2015. Risk Assessment Guidelines. Website: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf. Accessed October 12, 2021.

AIR QUALITY

Environmental Setting

The City of Lakeport lies within the Lake County Air Basin and the Lake County Air Quality Management District (LCAQMD) on the western shore of Clear Lake. Summers are typically warm and dry, with an average annual high temperature of 94 degrees Fahrenheit. Winters are cool and wet, with an average annual low temperature of 30 degrees Fahrenheit. The prevailing wind is westerly, with occasional strong gusty winds in winter. During autumn and winter, nighttime radiational cooling between storm periods often leads to formation of inversions and ground fog, especially in canyon basins near Lakeport. Inversions occur in conjunction with masses of very stable air, which tend to not move vertically and can become trapped in the lower and sheltered areas. Considerable air stagnation can occur if the inversion condition continues for several days. The inversion may persist until the onset of a Pacific storm. More intense heating at the surface in spring will generally initiate convection and good ventilation. In summer, region wide elevated inversions may be present, restricting the layer in which mixing and dilution of surface air may occur.[11]

Criteria Air Pollutants

The Federal Clean Air Act (FCAA) establishes the framework for modern air pollution control. The FCAA, enacted in 1970 and amended in 1990, directs the United States Environmental Protection Agency (EPA) to establish ambient air quality standards. These standards are divided into primary and secondary standards. The primary standards are set to protect human health, and the secondary standards are set to protect environmental values, such as plant and animal life. The FCAA requires the EPA to set National Ambient Air Quality Standards for the six criteria air pollutants. These pollutants include particulate matter (PM), ground-level ozone, carbon monoxide (CO), sulfur oxides, nitrogen oxides, and lead.

Toxic Air Contaminants

A toxic air contaminant (TAC) is an air pollutant not included in the California Ambient Air Quality Standards, but TACs are considered hazardous to human health. Toxic air contaminants are defined by the California Air Resources Board (CARB) as those pollutants that, “may cause or contribute to an increase in deaths or in serious illness, or which may pose a present or potential hazard to human health.”

The health effects associated with TACs are generally assessed locally rather than regionally. Toxic air contaminants can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage; TACs can also cause short-term acute effects such as eye watering, respiratory irritation, running nose, throat pain, and headaches. For evaluation purposes, TACs are separated into carcinogens and noncarcinogens. Carcinogens are assumed to have no safe threshold below which health

[11] City of Lakeport. 2008. Draft Environmental Impact Report. Website:https://www.cityoflakeport.com/Planning/Draft%20EIR%20General%20Plan%20Update/Draft-EIR---General-Plan-Update- --City-o-116200865514PM.pdf. Accessed October 8, 2021.

impacts would not occur, and the cancer risk is expressed as excess cancer cases per one million exposed individuals (typically over a lifetime of exposure).

TACs of concern assessed in this analysis include DPM, benzene, and asbestos.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics.

Air Quality Standards

The Clean Air Act requires states to develop a general plan to attain and maintain the standards in all areas of the country and a specific plan to attain the standards for each area designated nonattainment. These plans, known as State Implementation Plans or SIPs, are developed by state and local air quality management agencies and submitted to EPA for approval.

The SIP for the State of California is administered by the CARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. California's SIP incorporates individual federal attainment plans for each regional air district. SIPs are prepared by the regional air district and sent to CARB to be approved and incorporated into the California SIP. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms.

The CARB also administers the California Ambient Air Quality Standards (CAAQS) for the 10 air pollutants designated in the California Clean Air Act. The 10 state air pollutants include the six federal criteria pollutant standards listed above as well as visibility-reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride. The federal and state ambient air quality standards are summarized in Table 4.

Table 4: 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/m^3)	—	Same as Primary Standard
	8 Hour	0.070 ppm (137 µg/m^3)	0.070ppm (137 µg/m^3)	
Respirable Particulate Matter	24 Hour	50 µg/m^3	150 µg/m3	Same as Primary Standard
	Annual Arithmetic Mean	20 µg/m^3	—	
Fine	24 Hour	—	35 µg/m^3	

Pollutant	Averaging Time	California Standards	National Standards	
		Concentration	Primary	Secondary
Particulate Matter	Annual Arithmetic Mean	12 µg/m^3	12 µg/m^3	Same as Primary Standard
Carbon Monoxide	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	—
	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	—
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)	—	—
Nitrogen Dioxide	1 Hour	0.18 ppm (339 µg/m^3)	100 ppb (188 µg/m^3)	—
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	Same as Primary Standard
Sulfur Dioxide	1 Hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)	—
	3 Hour	—	—	0.5 ppm (1300 µg/m^3)
	24 Hour	0.04 ppm (105 µg/m^3)	0.14 ppm (for certain areas)	—
	Annual Arithmetic Mean	—	0.030 ppm (for certain areas)	—
Lead	30-Day Average	1.5 µg/m^3	—	—
	Calendar Quarter	—	1.5 µg/m^3	Same as Primary Standard
	Rolling 3-Month Average	—	0.15 µg/m^3	
Visibility-Reducing Particles	8 Hour	See Footnote 1	No National Standards	
Sulfates	24 Hour	25 µg/m^3		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m^3)		

Notes:

1 - In 1989, the CARB 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.

µg/m3 =micrograms per cubic meter

CARB = California Air Resources Board

mg/m3 = milligrams per cubic meter

ppm = parts per million

Source: Bay Area Air Quality Management District (BAAQMD). 2017. Air Quality Standards and Attainment Status. Website: https://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status. Accessed October 8, 2021.

The local air quality can be evaluated by reviewing relevant air pollution concentrations near the project area. Table 5 summarizes 2018 through 2020 published monitoring data, which is the most recent 3-year period available. The table displays data from the Lakeport – S. Main Street Station (located approximately 0.99 miles southeast of the project site), which is the closest monitoring station to the project site with data available. The data shows that during the past few years, the project area has exceeded the standards for PM_{10} (state and national) and $PM_{2.5}$ (state and national). The data in the table reflects the concentration of the pollutants in the air, measured using air monitoring equipment. This differs from emissions, which are calculations of a pollutant being emitted over a certain period. No recent monitoring data for Lake County or the Lake County Air Basin was available for CO, NO_2, or SO_2. Generally, no monitoring is conducted for pollutants that are no longer likely to exceed ambient air quality standards.

Table 5: Air Quality Monitoring Summary

Air Pollutant	Averaging Time	Item	2018	2019	2020
Ozone[1]	1 Hour	Max 1 Hour (ppm)	0.080	0.060	0.080
		Days > State Standard (0.09 ppm)	0	0	0
	8 Hour	Max 8 Hour (ppm)	0.064	0.055	0.063
		Days > State Standard (0.07 ppm)	0	0	0
		Days > National Standard (0.075 ppm)	0	0	0
Carbon monoxide (CO)	8 Hour	Max 8 Hour (ppm)	ND	ND	ND
		Days > State Standard (9.0 ppm)	ND	ND	ND
		Days > National Standard (9 ppm)	ND	ND	ND
Nitrogen dioxide (NO_2)	Annual	Annual Average (ppm)	ND	ND	ND
	1 Hour	Max 1 Hour (ppm)	ND	ND	ND
		Days > State Standard (0.18 ppm)	ND	ND	ND
Sulfur dioxide (SO_2)	Annual	Annual Average (ppm)	ND	ND	ND
	24 Hour	Max 24 Hour (ppm)	ND	ND	ND
		Days > State Standard (0.04 ppm)	ND	ND	ND
Inhalable coarse particles (PM_{10})[1]	Annual	Annual Average (µg/m^3)	ID	10.1	19.8
	24 Hour	24 Hour (µg/m^3)	**180.1**	21.9	**126.6**
		Days > State Standard (50 µg/m^3)	ID	0.0	**23.0**
		Days > National Standard (150 µg/m^3)	**6.1**	0.0	0.0
Fine particulate matter ($PM_{2.5}$)[1]	Annual	Annual Average (µg/m^3)	9.3	3.1	9.3
	24 Hour	24 Hour (µg/m^3)	**157.9**	8.3	**111.5**
		Days > National Standard (35 µg/m^3)	**18.8**	0.0	**23.0**

Notes:
> = exceed
ppm = parts per million
µg/m^3 = micrograms per cubic meter
ID = insufficient data
ND = no data
max = maximum
Bold = exceedance
State Standard = California Ambient Air Quality Standard

National Standard = National Ambient Air Quality Standard
[1] Lakeport – S. Main Street Station
Source: California Air Resources Board (CARB). 2021. Lakeport – S. Main Street Station. Website: https://www.arb.ca.gov/adam/trends/trends1.php. Accessed October 7, 2021.

The health impacts of the various air pollutants of concern can be presented in a number of ways. The clearest of these is comparable with the state and federal ozone standards. If concentrations are below the standard, it is safe to say that no significant health impact would occur to anyone. When concentrations exceed the standard, impacts will vary based on the amount by which the standard is exceeded. The EPA developed the Air Quality Index (AQI) as an easy-to-understand measure of health impacts compared with concentrations in the air. Table 6 provides a description of the health impacts of ozone at different concentrations.

Table 6: Air Quality Index and Health Effects from Ozone

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

Concentration 106–200 ppb	**Health Effects Statements:** Increasingly severe symptoms and impaired breathing likely in active children and adults and people with respiratory disease, such as asthma; increasing likelihood of respiratory effects in general population.
	Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should avoid all outdoor exertion; everyone else, especially children, should limit outdoor exertion.
Source: Air Now. 2016. AQI Calculator: AQI to Concentration. Website: https://www.airnow.gov/aqi/aqi-calculator/. Accessed October 7, 2021.	

The AQI for the 8-hour ozone standard is based on the current NAAQS of 70 parts per billion (ppb). Based on the AQI scale for the 8-hour ozone standard, the project area experienced zero days in the last three years that would have violated the 70-ppb standard. The highest reading was 63 ppb in 2018 and 2020 (AQI 77).

The only pollutant of concern is $PM_{2.5}$. An AQI of 100 or lower is considered moderate and would be triggered by a 24-hour average concentration of 12.1 to 35.4 µg/m^3. An AQI of 101 to 105 or 35.5-55.4 µg/m^3 is considered unhealthful for sensitive groups. When concentrations reach this amount, it is considered an exceedance of the federal $PM_{2.5}$ standard. The monitoring station nearest the project exceeded the standard on approximately 41.8 days in the three-year period spanning from 2018 to 2020. The highest number of exceedances was recorded in 2020 with 23.0 days over the standard. People with respiratory or heart disease, the elderly, and children are the groups most at risk. Unusually sensitive people should consider reducing prolonged or heavy exertion. The AQI of 151 to 200 is classified as unhealthy for everyone. This AQI classification is triggered when $PM_{2.5}$ concentration ranges from 55.4 to 150.4 µg/m^3. At this concentration, there is increasing likelihood of respiratory symptoms in sensitive individuals, aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease, and in the elderly. People with respiratory or heart disease, the elderly, and children should limit prolonged exertion. Everyone else should reduce prolonged or heavy exertion. The highest concentration recorded at the Lakeport – S. Main Street Station monitoring station in the last three years was 157.9 µg/m^3 (AQI 208) in 2018. At this concentration, there is significant aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; significant increase in respiratory effects in general population. Sensitive groups should avoid all physical activity outdoors, move activities indoors, or reschedule to a time when air quality is better. Everyone else should avoid prolonged or heavy exertion, consider moving activities indoors, or reschedule to a time when air quality is better. The relationship of the AQI to health effects in shown in Table 7.

Table 7: Air Quality Index and Health Effects of Particle Pollution

Air Quality Index/ $PM_{2.5}$ Concentration	Health Effects Description
AQI 51–100—Moderate	**Sensitive Groups:** Some people who may be unusually sensitive to particle.

Concentration 12.1–35.4 µg/m^3	**Health Effects Statements:** Unusually sensitive people should consider reducing prolonged or heavy exertion.
	Cautionary Statements: Unusually sensitive people: Consider reducing prolonged or heavy exertion. Watch for symptoms such as coughing or shortness of breath. These are signs to take it easier.
AQI 101–150—Unhealthy for Sensitive Groups	**Sensitive Groups:** Sensitive groups include people with heart or lung disease, older adults, children, and teenagers.
Concentration 35.5–55.4 µg/m^2	**Health Effects Statements:** Increasing likelihood of respiratory symptoms in sensitive individuals, aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease, and the elderly.
	If you have heart disease: Symptoms such as palpitations, shortness of breath, or unusual fatigue may indicate a serious problem. If you have any of these, contact your health care provider.
AQI 151–200—Unhealthy	**Sensitive Groups:** Everyone
Concentration 55.5–150.4 µg/m^3	**Health Effects Statements:** Increased aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; increased respiratory effects in general population.
	Cautionary Statements: Sensitive groups: Avoid prolonged or heavy exertion. Consider moving activities indoors or rescheduling. Everyone else: Reduce prolonged or heavy exertion. Take more breaks during outdoor activities.
AQI 201–300—Very Unhealthy	**Sensitive Groups:** Everyone
Concentration 150.5–250.4 µg/m^3	**Health Effects Statements:** Significant aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; significant increase in respiratory effects in general population.
	Cautionary Statements: Sensitive groups: Avoid all physical activity outdoors. Move activities indoors or reschedule to a time when air quality is better. Everyone else: Avoid prolonged or heavy exertion. Consider moving activities indoors or rescheduling to a time when air quality is better.
Source: Air Now. 2016. AQI Calculator: AQI to Concentration. Website: https://www.airnow.gov/aqi/aqi-calculator/. Accessed October 7, 2021.	

Federal and state air quality laws require identification of areas not meeting the ambient air quality standards. These areas must develop regional air quality plans to eventually attain the standards. Under both federal and state Clean Air Act, the Lake County Air Basin is in

attainment for all ambient air quality standards; therefore, the LCAQMD has not been required to develop any regional air quality plans.[12,13]

Thresholds of Significance

Project-level Thresholds

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

This analysis uses the air quality significance thresholds contained in Appendix G of the CEQA Guidelines, effective December 28, 2018. A significant impact would occur if the proposed project would:

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

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

c) Expose sensitive receptors to substantial pollutant concentrations.

d) Create objectionable odors affecting a substantial number of people.

The City of Lakeport has not established specific CEQA significance thresholds. Where available guidance provided by the applicable air district can be used to make significance determinations for the CEQA questions listed above; however, LCAQMD does not provide published thresholds for use by lead agencies in Lake County. Since the LCAQMD has no project-level thresholds of significance for the LCAB, the project's incremental increase for air pollutant emissions of concern are compared against quantitative thresholds of significance from the BAAQMD in this analysis. 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 BAAQMD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions in accordance with the Appendix G requirements. If a Lead Agency finds that a project has the potential to exceed these air pollution thresholds, according to the BAAQMD, the project should be considered to have significant air quality impacts.

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 BAAQMD 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

[12] Lake County Air Quality Management District. 2021. Lake County Air Quality Management District, Lake County, California Official Website. Website: https://www.lcaqmd.net/. Accessed October 8, 2021.

[13] City of Lakeport. 2008. Draft Environmental Impact Report. Website: https://www.cityoflakeport.com/Planning/Draft%20EIR%20General%20Plan%20Update/Draft-EIR---General-Plan-Update---City-o-116200865514PM.pdf. Accessed October 8, 2021.

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, PM_{10}, and $PM_{2.5}$.

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. Although the LCAB is currently in attainment of all state and federal air quality standards, if the project emits a substantial quantity of ozone precursors, the project may contribute to an exceedance of the ozone standard. PM_{10}, and $PM_{2.5}$ were also addressed, as substantial project emissions may contribute to an exceedance for these pollutants as well.

The BAAQMD has adopted significance thresholds for construction-related and operational emissions. These thresholds will be identified and addressed in the appropriate section of this document.

Project construction would involve the use of diesel-fueled vehicles and equipment that emit DPM, which is considered a TAC. Once operational, the gasoline dispensing facility would be a source of benzene. The following project-specific health risk significance thresholds are applied in this analysis:

- Maximum Incremental Cancer Risk: >=10 in 1 million.
- Hazard Index (project increment) >=1.0.

Environmental Impact Analysis

This section discusses potential impacts related to air quality associated with the proposed project and provides mitigation measures where necessary.

Impact AIR-1 Conflict with or obstruct implementation of the applicable air quality plan?

Impact Analysis

Federal and state air quality laws require identification of areas not meeting the ambient air quality standards. These areas must develop regional air quality plans to eventually attain these standards. Under both federal and state Clean Air Act, the Lake County Air Basin is in attainment for all ambient air quality standards; therefore, the LCAQMD has not been required to develop any regional air quality plans.[14,15] A main purpose of the LCAQMD is to enforce local, state, and federal air quality laws, rules and regulations in order to meet the Ambient Air Quality Standards and protect the public from air toxics through regulation. Projects that comply with applicable rules and regulations would not conflict or obstruct LCAQMD's ability to remain in attainment with air quality standards.

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[14] Lake County Air Quality Management District. 2021. Lake County Air Quality Management District, Lake County, California Official Website. Website: https://www.lcaqmd.net/. Accessed October 8, 2021.

[15] City of Lakeport. 2008. Draft Environmental Impact Report. Website: https://www.cityoflakeport.com/Planning/Draft%20EIR%20General%20Plan%20Update/Draft-EIR---General-Plan-Update---City-o-116200865514PM.pdf. Accessed October 8, 2021.

Conclusion

There are currently no applicable air quality plans in the Lake County Air Basin for the proposed project to conflict with.

This impact will not be further addressed in this document.

Level of Significance Before Mitigation
Less than significant.

Mitigation Measures
No mitigation measures are necessary.

Level of Significance After Mitigation
Less than significant.

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

Since the LCAQMD has no project-level thresholds of significance for the LCAB, thresholds of significance from the BAAQMD will be used for this analysis.

In developing thresholds of significance for air pollutants, the BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Project construction and operational impacts are assessed separately below.

Construction Emissions

Construction activities associated with development of the proposed project would include site preparation, grading, building construction, paving, and architectural coatings. Emissions from construction-related activities are generally short-term in duration but may still cause adverse air quality impacts. During construction, fugitive dust would be generated from earth-moving activities. Exhaust emissions would also be generated from off-road construction equipment and construction-related vehicle trips. Emissions associated with construction of the proposed project are discussed below.

Construction Fugitive Dust (PM_{10} and $PM_{2.5}$)

During construction (grading), fugitive dust (PM_{10} and $PM_{2.5}$) would be generated from site grading and other earth-moving activities. Most of this fugitive dust will remain localized and be deposited near the project site.

The BAAQMD does not have a quantitative threshold for fugitive dust. The BAAQMD's Air Quality Guidelines recommend that projects determine the significance for fugitive dust through application of best management practices (BMPs). Therefore, impacts related to fugitive dust

from the construction of the proposed project would be potentially significant without the inclusions of sufficient dust control measures. Mitigation Measure (MM) AIR-2a requires the inclusion of BMPs recommended by the BAAQMD to reduce potential impacts related to fugitive dust emissions from use of construction equipment. With incorporation of MM AIR-2a, short-term construction impacts associated with violating an air quality standard or contributing substantially to an existing or projected air quality violation would be less than significant.

Construction Emissions: ROG, NO_X, PM_{10} (exhaust), $PM_{2.5}$ (exhaust)

Table 8 provides the construction emissions estimate for the proposed project. Please refer to the Modeling Parameters and Assumptions section of this technical memorandum for details regarding assumptions used to estimate construction emissions. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required pursuant to CEQA guidelines. The project will be built out over multiple phases, with each phase becoming operational after construction of the corresponding phase is completed. The construction emissions in each phase and each year are well below the recommended thresholds of significance. Therefore, the emissions from construction would be less than significant.

Table 8: Construction Annual and Daily Average Emissions (Unmitigated Average Daily Rate)

	Air Pollutants			
Parameter	**ROG**	**NO_X**	**PM_{10} (Exhaust)**	**$PM_{2.5}$ (Exhaust)**
Phase 1 (2022)	0.45	2.16	0.11	0.10
Phase 2 (2023)	1.50	2.13	0.09	0.09
Phase 3 (2023)	0.07	0.56	0.02	0.02
Phase 3 (2024)	0.92	1.92	0.07	0.07
Phases 1 – 3 (2022-2024)				
Total Project Construction Emissions (tons/year)	*2.94*	*6.77*	*0.30*	*0.28*
Total Emissions (pounds/year)	5,883	13,549	590	554
Average Daily Emissions (pounds/day)[1]	9.37	21.57	0.94	0.88
Significance Threshold (pounds/day)	**54**	**54**	**82**	**54**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**

Notes:
[1] Calculated by dividing the total number of pounds by the total 628 working days of construction for the entire construction period.
Calculations use unrounded numbers.
lbs = pounds
NO_X = oxides of nitrogen
PM_{10} = particulate matter 10 microns in diameter

$PM_{2.5}$ = particulate matter 2.5 microns in diameter
ROG = reactive organic gases
Source: CalEEMod Output (Attachment A).

Operational Emissions

As previously discussed, the pollutants of concern include ROG, NO_X, PM_{10}, and $PM_{2.5}$. Full buildout of the project is anticipated to occur in 2024, immediately following the earliest anticipated completion of all phases of construction. Emissions were assessed for full buildout operations in the 2024 operational year. The 2024 operational year was chosen as it would be the best representation of the project as it is the year the project will become fully operational, thus generating the full amount of expected operational activity. The BAAQMD Criteria Air Pollutant Significance thresholds were used to determine impacts. Operational annual and daily emissions are shown in Table 9 and Table 10, respectively.

Table 9: Operational Annual Emissions for Full Buildout (Unmitigated)

	Tons per Year			
Emissions Source	**ROG**	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Area	0.72	0.00	0.00	0.00
Energy	0.02	0.15	0.01	0.01
Mobile (Motor Vehicles)	4.80	4.14	2.88	0.80
Waste	0.00	0.00	0.00	0.00
Water	0.00	0.00	0.00	0.00
Total Project Annual Emissions	**5.54**	**4.29**	**2.89**	**0.81**
Thresholds of Significance	**10**	**10**	**15**	**10**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**

Notes:
NO_X = oxides of nitrogen
$PM_{2.5}$ = particulate matter 2.5 microns or less in diameter
PM_{10} = particulate matter 10 microns or less in diameter
ROG = reactive organic gases
Source: CalEEMod Output (Attachment A).

Table 10: Operational Average Daily Emissions (Unmitigated)

	Tons per Year			
Emissions Source	**ROG**	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Total Project Annual Emissions[1] (tons/year)	5.54	4.29	2.89	0.81
Total Project Annual Emissions[2] (lbs/year)	11,073	8,590	5,776	1,618

Average Daily Emissions[3] (lbs/day)	**30.34**	**23.53**	**15.83**	**4.43**
Average Daily Emission Thresholds (lbs/day)	**54**	**54**	**82**	**54**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**

Notes:
[1] Tons per year are shown in Table 9.
[2] Pounds per year were calculated using the unrounded annual project operational emissions.
[3] The average daily operational emissions were estimated based on the total annual emissions divided by 365 days.
lbs = pounds
NO_X = oxides of nitrogen
$PM_{2.5}$ = particulate matter 2.5 microns or less in diameter
PM_{10} = particulate matter 10 microns or less in diameter
ROG = reactive organic gases
Source: CalEEMod Output (Attachment A).

As shown in Table 9 and Table 10, the proposed project would not result in net operational-related air pollutants or precursors that would exceed the applicable thresholds of significance. Therefore, project operations would not be considered to have the potential to generate a significant quantity of air pollutants; long-term operational impacts associated with the project's criteria pollutant emissions would be less than significant.

Level of Significance Before Mitigation

Potentially significant.

Mitigation Measures

MM AIR-2a During construction activities, the following Best Management Practices (BMPs) shall be implemented to control dust:

- Exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks shall be paved as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- A publicly visible sign shall be posted with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours of a complaint or issue notification.

Level of Significance After Mitigation

Less than significant.

Impact AIR-3 Expose sensitive receptors to substantial pollutant concentrations?

Impact Analysis

Since the LCAQMD has no project-level thresholds of significance for the LCAB, thresholds of significance from the BAAQMD are used this analysis.

This discussion addresses whether the proposed project would expose sensitive receptors to substantial pollutant concentrations. The localized pollutants that could impact sensitive receptors include: NOA, construction-generated fugitive dust (PM_{10} and $PM_{2.5}$), construction generated DPM, CO hotspots, and operational-related TACs. Project construction and operational impacts are assessed separately below.

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, the following are land uses where sensitive receptors are typically located:

- Long-term health care facilities
- Rehabilitation centers
- Convalescent centers
- Hospitals
- Retirement homes
- Residences
- Schools, playgrounds, and childcare centers

As a commercial development project, the proposed project itself would not be considered a sensitive receptor once operational. Therefore, for the purposes of the Health Risk Assessment (HRA), sensitive receptors associated with future on-site activities were not included as part of the construction or operational HRA. Most emissions during construction are generated during the site preparation and grading phases when heavy equipment is used to prepare the land for construction. Each phase of the project is expected to become operational following buildout of that particular phase. As the project is being built over four phases, there will be times where

construction activities overlap with project operations. Off-site residential receptors were included as part of the construction and operational HRAs. Off-site receptors were placed at existing and planned residential land uses and other land uses that would or could be considered sensitive receptor locations, including the hospice located southeast of the project stie.

Project as a Source - Construction

Construction Fugitive Dust

During construction, fugitive dust (PM_{10} and $PM_{2.5}$) would be generated from site grading and other earth-moving activities. Most of this fugitive dust will remain localized and be deposited near the project site; however, projects that would generate fugitive dust from construction activities have the potential to expose sensitive receptors if sensitive receptors are located near where construction activities could occur.

The BAAQMD does not have a quantitative threshold for fugitive dust. The BAAQMD's Air Quality Guidelines recommend that projects determine the significance for fugitive dust through application of best management practices (BMPs). In accordance with the BAAQMD's guidelines on thresholds of significance for fugitive dust, the project would not be considered significant were BMPs to be followed during buildout of the project. Therefore, impacts related to fugitive dust from the construction of the proposed project would be potentially significant without the inclusions of sufficient dust control measures. As discussed in Impact AIR-2, the proposed project would implement MM AIR-2a and implement BMPs recommended by the BAAQMD to reduce potential impacts related to fugitive dust emissions from use of the construction equipment. MM AIR-2a requires the inclusion of BMPs recommended by the BAAQMD to reduce potential impacts related to fugitive dust emissions from use of construction equipment. Impacts related to construction fugitive dust would be less than significant with incorporation of MM AIR-2a.

Construction-Generated DPM

A project-level assessment was conducted of the potential community health risk and health hazard impacts on surrounding sensitive receptors resulting from the emissions of TACs during construction. A summary of the assessment is provided below, while the detailed assessment is provided in Attachment B.

Construction activity using diesel-powered equipment emits DPM, a known carcinogen. Diesel particulate matter includes exhaust PM_{10} and exhaust $PM_{2.5}$. A 10-year research program demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk.[16] Health risks from TACs are a function of both concentration and duration of exposure. Construction diesel emissions are temporary, affecting an area for a period of weeks or months. Additionally, construction-related sources are mobile and transient in nature.

[16] California Air Resources Board (CARB). 2015. The Report on Diesel Exhaust. Website: https://ww2.arb.ca.gov/sites/default/files/classic/toxics/dieseltac/de-fnds.htm. Accessed October 8, 2021.

The health risk assessment evaluated DPM (represented as exhaust PM_{10}) 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. According to the BAAQMD, 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 10.0 in one million, an increased non-cancer risk of greater than 1.0 on the hazard index (chronic or acute).

The project site is located within 1,000 feet of existing and planned sensitive receptors that could be exposed to diesel emission exhaust during the construction period. 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 a nearby hospital). A maximally exposed individual receptor (MEIR) was determined for each phase of construction through the use of the dispersion modeling. Risks from all phases of construction were calculated for the MEIR location identified in each phase. Surrounding land uses and sensitive receptors are as follows:

- North – North of the project site is commercial development, followed by California State Highway 29.
- South – South of the project site is a hospice and mostly vacant land, followed by a small subdivision of single-family homes.
- East – East of the project site is California State Highway 29, followed by mostly vacant land with sparsely distributed commercial and residential buildings.
- West – West of the project site is mostly vacant land with sparsely distributed commercial and residential buildings.

Locations of the MEIR in each construction phase are summarized below and are shown in Attachment B.

Table 11 presents a summary of the proposed project's construction cancer risk and chronic non-cancer hazard impacts at the various MEIRs prior to the application of any equipment mitigation.

Table 11: Unmitigated Health Risks from Project Construction to Off-Site Receptors

Scenario	Health Impact Metric	Carcinogenic Inhalation Health Risk in One Million	Chronic Inhalation Hazard Index[4]
Risks and Hazards the Phase 1 MEIR[1]			
Total project construction	Risks and Hazards at the MEIR: Infants	20.50	0.026
	Risks and Hazards at the MEIR: Child	4.67	0.026
	Risks and Hazards at the MEIR: Adult	0.61	0.026
Risks and Hazards the Phase 2 MEIR[2]			
Total project construction	Risks and Hazards at the MEIR: Infants	32.60	0.054
	Risks and Hazards at the MEIR: Child	5.93	0.054
	Risks and Hazards at the MEIR: Adult	0.78	0.054
Risks and Hazards the Phase 3 MEIR[3]			
	Risks and Hazards at the MEIR: Infants	22.53	0.021

Scenario	Health Impact Metric	Carcinogenic Inhalation Health Risk in One Million	Chronic Inhalation Hazard Index[4]
Total project construction	Risks and Hazards at the MEIR: Child	4.96	0.021
	Risks and Hazards at the MEIR: Adult	0.65	0.021
Highest From Any Scenario			
Total project construction	Risks and Hazards at the MIR (Infant Scenario)	32.60	0.054
	Applicable Threshold of Significance	**10**	**1**
	Exceeds Individual Source Threshold?	Yes	No

Notes:
Maximally Exposed Individual Receptor (MEIR)
[1] UTM for Phase 1 MEIR: 506655.11, 4320009.77
[2] UTM for Phase 2 MEIR: 506480.42, 4320011.71
[3] UTM for Phase 3 MEIR: 506616.29, 4320010.20
[4] Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as PM_{10} exhaust) by the REL of 5 $\mu g/m^3$.
Source: Attachment B.

As shown in Table 11, estimated health risks from elevated DPM concentrations during construction of the proposed project would exceed the applicable cancer risk significance threshold in at least one scenario. This represents a potentially significant construction TAC exposure impact. Therefore, mitigation is required to reduce the impact during the construction period to below a level of significance.

MM AIR-3a requires the project applicant, project sponsor, or construction contractor to provide documentation to the City of Lakeport that all off-road diesel-powered construction equipment greater than 50 horsepower meet EPA or CARB Tier 4 Final off-road emissions standards. Table 12 shows the health risks and non-cancer hazard index for construction with implementation of Tier 4 Final mitigation, as required by MM AIR-3a.

Table 12: Mitigated Health Risks from Project Construction to Off-Site Receptors

Scenario	Health Impact Metric	Carcinogenic Inhalation Health Risk in One Million	Chronic Inhalation Hazard Index[4]
Risks and Hazards the Phase 1 MEIR[1]			
Total project construction	Risks and Hazards at the MEIR: Infants	2.50	0.003
	Risks and Hazards at the MEIR: Child	0.57	0.003
	Risks and Hazards at the MEIR: Adult	0.07	0.003
Risks and Hazards the Phase 2 MEIR[2]			
Total project construction	Risks and Hazards at the MEIR: Infants	4.12	0.007
	Risks and Hazards at the MEIR: Child	0.75	0.007
	Risks and Hazards at the MEIR: Adult	0.10	0.007
Risks and Hazards the Phase 3 MEIR[3]			
Total project construction	Risks and Hazards at the MEIR: Infants	2.76	0.003
	Risks and Hazards at the MEIR: Child	0.61	0.003
	Risks and Hazards at the MEIR: Adult	0.08	0.003
Highest From Any Scenario			

Scenario	Health Impact Metric	Carcinogenic Inhalation Health Risk in One Million	Chronic Inhalation Hazard Index[4]
Total project construction	Risks and Hazards at the MIR (Infant Scenario)	4.12	0.007
	Applicable Threshold of Significance	**10**	**1**
	Exceeds Individual Source Threshold?	No	No

Notes:
Maximally Exposed Individual Receptor (MEIR)
[1] UTM for Phase 1 MEIR: 506655.11, 4320009.77
[2] UTM for Phase 2 MEIR: 506480.42, 4320011.71
[3] UTM for Phase 3 MEIR: 506616.29, 4320010.20
[4] Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as PM_{10} exhaust) by the REL of 5 $\mu g/m^3$.
Source: Attachment B.

As noted in Table 12, calculated health metrics from the proposed project's construction DPM emissions would not exceed the cancer risk significance threshold or non-cancer hazard index significance threshold at the MEIR with incorporation of MM AIR-3a. Therefore, the proposed project would not result in a significant impact on nearby sensitive receptors from TACs during construction.

Naturally Occurring Asbestos

The California DOC and the United States Geological Survey (USGS) have published a guide for generally identifying areas that are likely to contain NOA. Although there are areas likely to contain NOA in Lake County and within Lakeport itself, there are no NOA areas located in the immediate vicinity of the project area. Therefore, there is no impact.[17]

Project as a Source – Operation

CO Hotspot

Localized high levels of CO (CO hotspot) are associated with traffic congestion and idling or slow-moving vehicles. The BAAQMD recommends a screening analysis to determine if a project has the potential to contribute to a CO hotspot. The screening criteria identifies when site-specific CO dispersion modeling is necessary. The project would result in a less than significant impact to air quality for local CO if the following screening criteria are met:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans; or
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; or
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially

[17] United States Geological Survey (USGS). 2011. Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California. Website: https://pubs.usgs.gov/of/2011/1188/. Accessed October 8, 2021.

limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

According to the Traffic Impact Analysis prepared for the project by TJW Engineering, the project would generate approximately 270 net new trips during the a.m. peak hour and 319 net new trips during the p.m. peak hour and would not substantially increase traffic volumes on nearby roadways above 44,000 vehicles per hour.[18] Furthermore, the adjacent roadways are not located in an area where vertical and/or horizontal mixing, or the free movement of the air mass, is substantially limited by physical barriers such as large bridge overpasses or urban or natural canyon walls. Therefore, the project would not significantly contribute to an existing or projected CO hotspot. Impacts are less than significant.

Toxic Air Contaminants

The proposed project would develop 15.48 acres of commercial use land and would not generate substantial on-site TAC emissions during operation. The types of commercial development that would be developed by the project are not operational uses that are typically associated with TAC emissions with the exception of the 16-pump gas station that is included as part of the project. This proposed gas station, as well as the TACs associated it, are discussed separately below. As described in the Traffic Impact Analysis, the project is expected to generate a net 4,680 average daily trips. The proposed project would primarily generate trips associated with residents and visitors traveling to and from the project site. The daily travel trips to and from the project site would primarily be generated by passenger vehicles. Because nearly all passenger vehicles are gasoline-combusted, the proposed project would not generate significant amount of DPM emissions during operation. Therefore, the proposed project would not result in significant health impacts to nearby sensitive receptors from emissions project-generated trips during operation.

Gasoline Station (Benzene)

Out of the toxic compounds emitted from gasoline stations, benzene, ethylbenzene, and naphthalene have cancer toxicity values. However, benzene is the TAC which drives the risk, accounting for 85 percent of cancer risk from gasoline vapors. Furthermore, benzene constitutes more than three to four times the weight of gasoline than ethylbenzene and naphthalene, respectively.[19] Therefore, ethylbenzene and naphthalene have not been modeled and are instead considered significant in the case that benzene emissions are significant. Additionally, there are substances emitted from gasoline stations, such as toluene and xylene which possess acute adverse health effects (though not cancer risk). However, it is not until the benzene concentrations are more than two orders of magnitude above 10 in one million that the emissions of toluene and xylene begin to cause adverse health effects.[20] Therefore, toluene and xylene emissions have not been modeled and are instead considered significant in the case that

[18] TJW Engineering, Inc. 2021. Lakeport Shopping Center Traffic Impact Analysis. April 26, 2021.
[19] South Coast Air Quality Management District (SCAQMD). 2015. Risk Assessment Procedures for Rules 1401, 1401.1, and 212. Website:http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1401/appx_1401riskassessproc_071517nw.pdf. Accessed October 7, 2021.
[20] California Air Pollution Control Officers Association (CAPCOA). 1997. Gasoline Service Station Industrywide Risk Assessment Guidelines. Website: https://www.co.monterey.ca.us/home/showdocument?id=22409. Accessed October 8, 2021.

benzene concentrations are identified at two orders of magnitude above 10 in one million cancer risk.

Emissions sources in the model include proposed on-site fuel storage tanks and fuel dispensers. The proposed project contemplates three underground fuel storage tanks and nine fuel pumps. The specific processes associated with fuel storage tanks and fuel dispensers that emit air toxics include loading, breathing, refueling, and spillage, as described below:

- Loading – Emissions occur when a fuel tanker truck unloads gasoline into the storage tanks. The storage tank vapors, displaced during loading, are emitted through its vent pipe. (A required pressure/vacuum valve installed on the tank vent pipe significantly reduces these emissions.)
- Breathing – Emissions occur through the storage tank vent pipe as a result of temperature and pressure changes in the tank vapor space.
- Refueling – Emissions occur during motor vehicle refueling when gasoline vapors escape through the vehicle/nozzle interface.
- Spillage – Emissions occur from evaporating gasoline that spills during vehicle refueling.

Loading and breathing emissions exit the underground storage tank vent pipe and are thus treated as a point source. The height and diameter of the vent are assumed to be 3.66 meters and 0.05 meters, respectively. Refueling and spillage emissions are modeled as volume sources with a vertical dimension of 5 meters to correspond to the height of the canopy. For refueling, the release height is assumed to be 1 meter to approximate the height of a vehicle fuel tank inlet, whereas spillage emissions are assumed to be released at ground level since nearly all the gasoline from spillage reaches the ground.

The model was run to obtain the peak 24-hour and annual average concentration in micrograms per cubic meter [µg/m3] at nearby sensitive receptors.

The chronic and carcinogenic health risk calculations are based on the standardized equations contained in the U.S. EPA Human Health Evaluation Manual[21] and the Office of Environmental Health Hazard Assessment (OEHHA) Guidance Manual.[22]

Results of the health risk analysis from operations of the proposed gasoline station are summarized in Table 13. The complete HRA prepared for the proposed project, including calculations and AERMOD output data used in the construction HRA, are included in Attachment B of this memorandum.

[21] United States Environmental Protection Agency (U.S. EPA). 1991. Human Health Evaluation Manual. Website: https://www.epa.gov/sites/default/files/2015-11/documents/defaultExposureParams.pdf. Accessed October 12, 2021.

[22] Office of Environmental Health Hazard Assessment (OEHHA). 2015. Risk Assessment Guidelines. Website: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf. Accessed October 12, 2021.

Table 13: Summary of the Health Impacts from Operations of the Proposed Gasoline Station

Exposure Scenario	Maximum Cancer Risk (Risk per Million)	Chronic Non-Cancer Hazard Index	Acute Non-Cancer Hazard from Maximum Hourly Benzene
30-Year Exposure at the MEI	0.26	0.002	0.005
70-Year Exposure at the MEI	0.30	0.002	0.005
Applicable Threshold of Significance	**10**	**1**	**1**
Exceeds Individual Source Threshold?	**No**	**No**	**No**

Notes:
Maximally Exposed Individual Receptor (MEIR)
[1] UTM for maximum cancer risk MEIR: 506596.88, 4320010.42
Source: Attachment B.

As shown above in Table 13, the project calculated health metrics from the proposed project's operational emissions would not exceed the cancer risk significance threshold, non-cancer hazard index significance threshold, or acute non-cancer hazard at the MEIR. Therefore, the proposed project would not result in a significant impact on nearby sensitive receptors from project-generated TACs during operations.

Operations—The Project's Potential to Locate Sensitive Receptor Near Existing Sources of TACs

The project would not locate new sensitive receptors that could be subject to existing sources of TACs at the project site. Furthermore, the California Supreme Court concluded in *California Building Industry Association v. BAAQMD* that agencies subject to CEQA are not required to analyze the impact of existing environmental conditions on a project's future users or residents. This impact will not be further addressed in this document.

Level of Significance Before Mitigation

Potentially significant.

Mitigation Measures

Implement Mitigation Measure AIR-2a (refer to Impact AIR-2 for complete details pertaining to this mitigation measure) and:

MM AIR-3a Before a construction permit is issued for the proposed project, the project applicant, project sponsor, or construction contractor shall submit construction emissions minimization plans to the City of Lakeport for review and approval. The construction emissions minimization plans shall provide reasonably detailed compliance with the following requirements:

(1) Where portable diesel engines are used during construction, all off-road equipment shall have engines that meet either EPA or CARB Tier 4 Final off-road emission standards except as otherwise specified herein. If engines that comply with Tier 4 Final off-road emission standards are not commercially available, then the construction contractor shall use the next cleanest piece of off-road equipment (e.g., Tier 4 Interim) that is commercially available. For purposes of this project design feature, "commercially available" shall mean the equipment at issue is available taking into consideration factors such as (i) critical-path timing of construction; and (ii) geographic proximity to the project site of equipment. If the relevant equipment is determined by the project applicant to not be commercially available, the contractor can confirm this conclusion by providing letters from at least two rental companies for each piece of off-road equipment that is at issue.

Level of Significance After Mitigation

Less than significant.

Impact AIR-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Impact Analysis

Since the LCAQMD has no project-level thresholds of significance for the LCAB, thresholds of significance from the BAAQMD will be used for this analysis.

As stated in the BAAQMD Air Quality Guidelines, odors are generally regarded as an annoyance rather than a health hazard and the ability to detect odors varies considerably among the populations and overall is subjective. The BAAQMD does not have a recommended odor threshold for construction activities. However, the BAAQMD recommends screening criteria that are based on distance between types of sources known to generate odor and the receptor. For projects within the screening distances, the BAAQMD has the following threshold for project operations:

An odor source with five (5) or more confirmed complaints per year averaged over three years is considered to have a significant impact on receptors within the screening distance shown in the BAAQMD's guidance (see Table 14).

The BAAQMD's 2017 Air Quality Guidelines provide a table with odor screening distances recommended by BAAQMD for a variety of land uses.[23] Projects that would site an odor source or a receptor farther than the applicable screening distance, shown in Table 14 below, would not likely result in a significant odor impact. Since the project is not adding new sensitive receptors

[23] Bay Area Air Quality Management District (BAAQMD). 2017. Air Quality Standards and Attainment Status. Website: https://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status. Accessed October 8, 2021.

to the project area or within screening distance of potential odor sources, the following information is being presented for informational purposes only.

Table 14: Screening Levels for Potential Odor Sources

Odor Generator	Distance
Wastewater Treatment Plant	2 miles
Wastewater Pumping Facilities	1 mile
Sanitary Landfill	2 miles
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	2 miles
Chemical Manufacturing	2 miles
Fiberglass Manufacturing	1 mile
Painting/Coating Operations	1 mile
Rendering Plant	2 miles
Coffee Roaster	1 mile
Food Processing Facility	1 mile
Confined Animal Facility/Feed Lot/Dairy	1 mile
Green Waste and Recycling Operations	1 mile
Source: Bay Area Air Quality Management District (BAAQMD). 2017. Air Quality Standards and Attainment Status. Website: https://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status. Accessed October 8, 2021.	

The project is commercial in nature and would not locate near sensitive receptors once operational. Although the project would not be considered a sensitive receptor land use, the project area was reviewed for existing odor sources for information purposes only. No portion of the project site is located within any screening distance of any odor generators listed in Table 14. For disclosure and informational purposes only, the closest odor source to the project is an auto body shop 1.08 miles to the northeast of the project boundary.

Project Construction and Project Operation

The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptors. Although offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies. Project operations would not be anticipated to produce odorous emissions. 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 onsite 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.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures are necessary.

Level of Significance After Mitigation

Less than significant.

GREENHOUSE GASES

Environmental Setting

Greenhouse Gases

Greenhouse gases and climate change are cumulative global issues. The CARB and EPA regulate GHG emissions within the State of California and the U.S., respectively. Meanwhile, the CARB has the primary regulatory responsibility within California for GHG emissions. Local agencies can also adopt policies for GHG emission reduction.

Many chemical compounds in the Earth's atmosphere act as GHGs as they absorb and emit radiation within the thermal infrared range. When radiation from the sun reaches the earth's surface, some of it is reflected into the atmosphere as infrared radiation (heat). Greenhouse gases absorb this infrared radiation and trap the heat in the atmosphere. Over time, the amount of energy from the sun to the earth's surface should be approximately equal to the amount of energy radiated back into space, leaving the temperature of the earth's surface roughly constant. Many gases exhibit these "greenhouse" properties. Some of them occur in nature (water vapor, carbon dioxide [CO_2], methane [CH_4], and nitrous oxide [N_2O]), while others are exclusively human made (like gases used for aerosols).

The principal climate change gases resulting from human activity that enter and accumulate in the atmosphere are listed below.

Carbon Dioxide

Carbon dioxide enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and chemical reactions (e.g., the manufacture of cement). Carbon dioxide is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.

Methane

Methane is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and agricultural practices and the decay of organic waste in municipal solid waste landfills.

Nitrous Oxide

Nitrous oxide is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

Fluorinated Gases

Hydrofluorocarbons, perfluorinated chemicals, and sulfur hexafluoride are synthetic, powerful climate-change gases that are emitted from a variety of industrial processes. Fluorinated gases are often used as substitutes for ozone-depleting substances (i.e., chlorofluorocarbons, hydrochlorofluorocarbons, and halons). These gases are typically emitted in smaller quantities, but because they are potent climate-change gases, they are sometimes referred to as high global warming potential gases.

Emissions Inventories and Trends

According to the CARB's recent GHG inventory for the state, released 2021, California produced 418.2 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) in 2019. The major source of GHGs in California is transportation, contributing approximately 39.7 percent of the state's total GHG emissions in 2019.[24] This puts total emissions at 12.8 $MMTCO_2e$ below the 2020 target of 431 million metric tons. California statewide GHG emissions dropped below the 2020 GHG limit in 2016 and have remained below the 2020 GHG limit since then.

Potential Environmental Impacts

For California, climate change in the form of warming has the potential to incur and exacerbate environmental impacts, including but not limited to changes to precipitation and runoff patterns, increased agricultural demand for water, inundation of low-lying coastal areas by sea-level rise, and increased incidents and severity of wildfire events.[25] Cooling of the climate may have the opposite effects. Although certain environmental effects are widely accepted to be a potential hazard to certain locations, such as rising sea level for low-lying coastal areas, it is currently infeasible to predict all environmental effects of climate change on any one location.

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial and manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. A project's GHG emissions are at a micro-scale relative to global emissions but could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact.

Regulatory Requirements

California has adopted statewide legislation addressing various aspects of climate change and GHG emissions mitigation. Much of this legislation establishes a broad framework for the state's long-term GHG reduction and climate change adaptation program. The governor has also issued several executive orders (EOs) related to the state's evolving climate change policy. Of particular importance are AB 32 and SB 32, which outline the state's GHG reduction goals of achieving 1990 emissions levels by 2020 and a 40 percent reduction below 1990 emissions levels by 2030.

In the absence of federal regulations, control of GHGs is generally regulated at the state level and is typically approached by setting emission reduction targets for existing sources of GHGs, setting policies to promote renewable energy and increase energy efficiency, and developing statewide action plans.

[24] California Air Resources Board (CARB). 2021. California Greenhouse Gas Emissions for 2000 to 2019. Website: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2019/ghg_inventory_trends_00-19.pdf. Accessed. October 8, 2021.

[25] Moser et al. 2009. Moser, Susie, Guido Franco, Sarah Pittiglio, Wendy Chou, Dan Cayan. 2009. The Future Is Now: An Update on Climate Change Science Impacts and Response Options for California. Website: http://www.susannemoser.com/documents/CEC-500-2008-071_Moseretal_FutureisNow.pdf. Accessed October 8, 2021.

The City of Lakeport adopted their most recent General Plan in 2009, which includes city-wide goals and strategies for reducing GHG emissions, but not a project-specific threshold for determining the significance of GHG emissions during construction or operation of any particular project.[26] The City of Lakeport has not adopted a GHG reduction plan. In addition, the City has not completed the GHG inventory, benchmarking, or goal-setting process required to identify a reduction target and take advantage of the streamlining provisions contained in the CEQA Guidelines amendments adopted for SB 97 and clarifications provided in the CEQA Guidelines amendments adopted on December 28, 2018. Furthermore, there are no recommendations provided by the LCAQMD for projects in the LCAB. As such, there are not formally adopted or recommended project-level thresholds of significance provided by either the LCAQMD or the City of Lakeport. In the absence of an adopted numeric GHG emissions threshold consistent with the State's 2030 target, the project's GHG emissions impact determination is based on 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 GHG emissions. The project's GHG emissions are provided for informational purposes only.

Thresholds of Significance

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, which were amendments adopted into the Guidelines on March 18, 2010, pursuant to SB 97. A significant impact would occur if the project would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

Project-level Thresholds

Section 15064.4(b) of the CEQA Guidelines' amendments for GHG emissions states that a lead agency may take into account the following three considerations in assessing the significance of impacts from GHG emissions.

- Consideration #1: The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting.
- Consideration #2: Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- Consideration #3: The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction

[26] City of Lakeport. 2009. General Plan 2025. Website: https://www.cityoflakeport.com/Planning/Lakeport%20General%20Plan%202025/City-of-Lakeport-General-Plan-2025_Augus-8312009103657PM.pdf. Accessed October 8, 2021.

or mitigation of GHG emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of GHG 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.

Newhall Ranch

In the California Supreme Court decision in the *Center for Biological Diversity et al. vs. California Department of Fish and Wildlife, the Newhall Land and Farming Company* (62 Cal.4th 204 [2015], and known as the Newhall Ranch decision), the Supreme Court was concerned that new development may need to reduce GHG emissions more than existing development to demonstrate it is meeting its fair share of reductions. New development does do more than its fair share through compliance with enhanced regulations, particularly with respect to motor vehicles, energy efficiency, and electricity generation. If no additional reductions are required from an individual project beyond that achieved by regulations, then the amount needed to reach the 2020 target is the amount of GHG emissions a project must reduce to comply with Statewide goals.

The State's regulatory program implementing the 2008 Scoping Plan is now fully mature. All regulations envisioned in the Scoping Plan have been adopted by the responsible agencies and the effectiveness of those regulations have been estimated by the agencies during the adoption process and then are tracked to verify their effectiveness after implementation. The Governor Brown, in the introduction to Executive Order B-30-15, states "California is on track to meet or exceed the current target of reducing greenhouse gas emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32)." The progress was evident in emission inventories prepared by CARB, which showed that the State inventory dropped below 1990 levels for the first time in 2016.[27] The 2017 Scoping Plan Update includes projections indicating that the State will meet or exceed the 2020 target with adopted regulations.[28] The State now projects that it will meet the 2020 target and achieve continued progress towards meeting the 2017 Scoping Plan target for 2030.

GHG Threshold Applied in the Analysis

The City of Lakeport does not currently have formal GHG emissions reduction plans or recommended emissions thresholds for determining significance associated with GHG emissions from development projects. In the absence of an adopted numeric GHG emissions threshold consistent with the State's 2030 target, the project's GHG emissions impact determination is based on the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction of GHG

[27] California Air Resources Board (CARB). 2018. Climate Pollutants Fall Below 1990 Levels for the First Time. Website: https://ww2.arb.ca.gov/news/climate-pollutants-fall-below-1990-levelsfirst-time. Accessed October 8, 2021.

[28] California Air Resources Board (CARB). 2017. The 2017 Climate Change Scoping Plan Update, the Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target. January 17, 2017. Website: https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf. Accessed October 8, 2021.

emissions. The project's operational GHG emissions are provided for informational purposes only.

Environmental Impact Analysis

This section discusses potential impacts related to GHGs associated with the proposed project and provides mitigation measures where necessary.

Impact GHG-1 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Impact Analysis

The proposed project may contribute to climate change impacts through its contribution of GHGs. The proposed project would generate a variety of GHGs during construction, including several defined by AB 32, such as CO_2, CH_4, and N_2O from the exhaust of equipment, construction hauling trips, and worker commuter trips.

In the absence of an adopted numeric GHG emissions threshold consistent with the State's 2030 target, the project's GHG emissions impact determination is based on 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 GHG emissions. The project's GHG emissions are provided for informational purposes only.

Quantification of Greenhouse Gas Emissions for Informational Purposes

Construction Emissions

Construction emissions would be generated from the exhaust of construction equipment, material delivery trips, and worker commuter trips. Detailed construction assumptions are provided in Modeling Parameters and Assumptions section of this technical memorandum. Construction-generated GHGs were quantified and are disclosed in Attachment A. $MTCO_2e$ emissions during construction of the project are summarized below in Table 15.

Table 15: Construction Greenhouse Gas Emissions

Project Construction (2022-2024)	**$MTCO_2e$**
Phase 1 Project Construction (2022)	350
Phase 2 Project Construction (2023)	432
Phase 3 Project Construction (2023-2024)	606
Total Construction $MTCO_2e$	**1,388**
Emissions Amortized Over 30 Years[1]	**46**

Notes:
$MTCO_2e$ = metric tons of carbon dioxide equivalent
[1] Construction GHG emissions are amortized over the 30-year lifetime of the project.
Source: CalEEMod Output (Attachment A).

During the construction of the proposed project, approximately 1,380 $MTCO_2e$ would be emitted. Neither the City of Lakeport, the LCAQMD, nor the BAAQMD have an adopted

thresholds of significance for construction related GHG emissions. Because impacts from construction activities occur over a relatively short-term period, they contribute a relatively small portion of the overall lifetime project GHG emissions. In addition, GHG emission reduction measures for construction equipment are relatively limited. Therefore, a standard practice is to amortize construction emissions over the anticipated lifetime of a project, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies. In the absence of a construction emission threshold, emissions were quantified for informational purposes only. The total emissions generated during construction were amortized based on the life of the development (30 years) and added to the operational emissions to determine the total emissions from the project, as shown below.

Operational Emissions

Operational or long-term emissions occur over the life of the project. The operational emissions for the proposed project are shown in Table 16. Sources for operational emissions include the following:

- Motor Vehicles: These emissions refer to GHG emissions contained in the exhaust from the cars and trucks that would travel to and from the project site.
- Natural Gas: These emissions refer to the GHG emissions that occur when natural gas is burned on the project site. Natural gas uses include heating water, space heating, dryers, stoves, or other uses.
- Indirect Electricity: These emissions refer to those generated by offsite power plants to supply electricity required for the project.
- Water Transport: These emissions refer to those generated by the electricity required to transport and treat the water to be used on the project site.
- Waste: These emissions refer to the GHG emissions produced by decomposing waste generated by the project. These include waste removed from car interiors during the cleaning process; waste generated in the restrooms; and waste generated from the operations of the facility.

Detailed modeling results and more information regarding assumptions used to estimate emissions are provided in Attachment A. Operational emissions are shown in Table 16.

Table 16: Operational Greenhouse Gas Emissions at Project Buildout

Source Category	**$MTCO_2e$**
Area	0
Energy Consumption	328
Mobile	3,011
Solid Waste Generation	87
Water Usage	12
Amortized Construction Emissions[1]	46
Total	*3,484*
Notes:	

Source Category	$MTCO_2e$
$MTCO_2e$ = metric tons of carbon dioxide equivalent [1] Construction GHG emissions are amortized over the 30-year lifetime of the project. Source: CalEEMod Output (Attachment A).	

Project operations estimated in the 2030 operational year are provided in Table 17 below.

Table 17: Operational Greenhouse Gas Emissions in the 2030 Operational Year

Source Category	$MTCO_2e$
Area	0
Energy Consumption	318
Mobile	2,466
Solid Waste Generation	87
Water Usage	12
Amortized Construction Emissions[1]	46
Total	*2,883*
Notes: $MTCO_2e$ = metric tons of carbon dioxide equivalent [1] Construction GHG emissions are amortized over the 30-year lifetime of the project. Source: CalEEMod Output (Attachment A).	

However, significance for GHG emissions is analyzed by assessing the project's compliance with Consideration No. 3 regarding consistency with adopted plans to reduce GHG emissions. As discussed in detail below, the project would not conflict with any applicable plan, policy or regulation of an agency adopted to reduce the emissions of GHGs. As such, the project's generation of GHG emissions would not result in a significant impact on the environment.

Impact Analysis (Project's Compliance with Consideration No. 3 Regarding Consistency with Adopted Plans to Reduce GHG Emissions)

The following analysis assesses the project's compliance with Consideration No. 3 regarding consistency with adopted plans to reduce GHG emissions. As discussed above, the City of Lakeport has not adopted a GHG reduction plan. In addition, the City has not completed the GHG inventory, benchmarking, or goal-setting process required to identify a reduction target and take advantage of the streamlining provisions contained in the CEQA Guidelines amendments adopted for SB 97 and clarifications provided in the CEQA Guidelines amendments adopted on December 28, 2018. There are no other local plans adopted for the purposes of reducing GHG emissions that contain measures that are applicable to development projects. Since no other local or regional Climate Action Plan is in place, the project is assessed for its consistency with CARB's adopted Scoping Plans. This would be achieved with an assessment of the project's compliance with Scoping Plan measures contained in the 2017 Scoping Plan Update.

Greenhouse Gas Emissions Estimation Summary and Greenhouse Gas Impact Analysis

Greenhouse Gas Impact Analysis

The following analysis assesses the proposed project's compliance with Consideration No. 3 regarding consistency with adopted plans to reduce GHG emissions. The proposed project is assessed for its consistency with CARB's adopted Scoping Plans. This would be achieved with an assessment of the proposed project's compliance with Scoping Plan measures contained in the 2017 Scoping Plan Update.

Consistency with SB 32

The 2017 Climate Change Scoping Plan Update (2017 Scoping Plan) includes the strategy that the State intends to pursue to achieve the 2030 targets of Executive Order S-3-05 and SB 32. The 2017 Scoping Plan includes the following summary of its overall strategy for reaching the 2030 target:

- SB 350
    - Achieve 50 percent Renewables Portfolio Standard (RPS) by 2030.
    - Doubling of energy efficiency savings by 2030.
- Low Carbon Fuel Standard (LCFS)
    - Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).
- Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
    - Maintaining existing GHG standards for light- and heavy-duty vehicles.
    - Put 4.2 million zero-emission vehicles (ZEVs) on the roads.
    - Increase ZEV buses, delivery and other trucks.
- Sustainable Freight Action Plan
    - Improve freight system efficiency.
    - Maximize use of near-zero emission vehicles and equipment powered by renewable energy.
    - Deploy over 100,000 zero-emission trucks and equipment by 2030.
- Short-Lived Climate Pollutant (SLCP) Reduction Strategy
    - Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030.
    - Reduce emissions of black carbon 50 percent below 2013 levels by 2030.
- SB 375 Sustainable Communities Strategies
    - Increased stringency of 2035 targets.
- Post-2020 Cap-and-Trade Program

  - Declining caps, continued linkage with Québec, and linkage to Ontario, Canada.
  - 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.

- By 2018, develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Table 18 provides an analysis of the project's consistency with the 2017 Scoping Plan Update measures.

Table 18: Consistency with SB 32 2017 Scoping Plan Update

Scoping Plan Measure	Project Consistency
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 project will purchase electricity from a utility subject to the SB 350 Renewable Mandate SB 100 Renewable Mandate. SB 100 revised the Renewable Portfolio Standard 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 specific provider for this project is Pacific Gas and Electric Company.
SB 350 Double Building Energy Efficiency by 2030. This is equivalent to a 20 percent reduction from 2014 building energy usage compared to current projected 2030 levels.	**Not Applicable**. This measure applies to existing buildings. New structures are required to comply with Title 24 Energy Efficiency Standards that are expected to increase in stringency until residential housing achieves zero net energy.
Low Carbon Fuel Standard. This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	**Consistent**. Vehicles accessing the 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.	**Not Applicable**. The project consists of construction and development of a 16-pump gas station with a 3,200 square foot convenience market, 3,200 square foot restaurant, 1,850 square foot coffee shop with drive-thru, 1,850 square foot retail space, 70-room hotel, and 46,630 square foot commercial shopping/retail space and would not engage in vehicle manufacturing.
Sustainable Freight Action Plan. The plan's target is to improve freight system efficiency 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero	**Not Applicable**. The measure applies to owners and operators of trucks and freight operations. However, deliveries that would be made to the future businesses are expected to be made by increasing number of ZEV delivery trucks.

Scoping Plan Measure	Project Consistency
emission freight vehicles and equipment powered by renewable energy by 2030.	
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.** Sources of black carbon are already regulated by the CARB and air district criteria pollutant and toxic regulations that control fine particulate emissions from diesel engines and other combustion source. Additional controls on the sources of black carbon specifically for their GHG impacts beyond those required for toxic and fine particulates are not likely to be needed. Project is not likely to be a major source, but would include air conditioning and typical commercial refrigerators in convenience markets, restaurants, and other commercial land uses likely to be included.
SB 375 Sustainable Communities Strategies. Requires Regional Transportation Plans to include a sustainable communities strategy for reduction of per capita vehicle miles traveled.	**Not Applicable**. The project is not within an SCS priority area and so is not subject to requirements applicable to those areas.
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.
Natural and Working Lands Action Plan. The CARB is working in coordination with several other agencies at the federal, state, and local levels, stakeholders, and with the public, to develop measures as outlined in the Scoping Plan Update and the governor's Executive Order B-30-15 to reduce GHG emissions and to cultivate net carbon sequestration potential for California's natural and working land.	**Not Applicable**. The project is commercial development and will not be considered natural or working lands.
Source: California Air Resources Board (CARB). 2017. The 2017 Climate Change Scoping Plan Update. January 20. Website: https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf. Accessed October 4, 2021.	

Regarding goals for 2050 under Executive Order S-3-05, at this time it is not possible to quantify the emissions savings from future regulatory measures, as they have not yet been developed; nevertheless, it can be anticipated that operation of the project would comply with whatever

measures are enacted that state lawmakers decide would lead to an 80 percent reduction below 1990 levels by 2050. In its 2008 Scoping Plan, CARB acknowledged that the "measures needed to meet the 2050 are too far in the future to define in detail." In the First Scoping Plan Update; however, CARB generally described the type of activities required to achieve the 2050 target: "energy demand reduction through efficiency and activity changes; large scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and rapid market penetration of efficiency and clean energy technologies that requires significant efforts to deploy and scale markets for the cleanest technologies immediately." The 2017 Scoping Plan provides an intermediate target that is intended to achieve reasonable progress toward the 2050 target.

Accordingly, taking into account the proposed project's emissions, project design features, and the progress being made by the State towards reducing emissions in key sectors such as transportation, industry, and electricity, the project would be consistent with State GHG Plans and would further the State's goals of reducing GHG emissions to 1990 levels by 2020, 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050, and does not obstruct their attainment. Impacts would be less than significant.

Conclusion

Taking into account the proposed project's design features and the progress being made by the State towards reducing emissions in key sectors such as transportation, industry, and electricity, the proposed project would be consistent with State and local GHG Plans would not obstruct their attainment. The proposed project's GHG impacts would be less than significant.

Impact GHG-2 Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Impact Analysis

The analysis contained above under Impact GHG-1 evaluates whether the project would not conflict with any applicable plan, policy, or regulation of an agency adopted to reduce the emissions of GHGs. As discussed under Impact GHG-1 above, the project would not conflict with any applicable plan, policy, or regulation of agency to reduce. As such, project impacts in this regard would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures are necessary.

Level of Significance After Mitigation

Less than significant.

Energy

Environmental Setting

Pacific Gas and Electric Company provides electricity and natural gas service to the City. Upon buildout of the project site, electricity to the project site would be provided by PG&E. All electricity infrastructure would be located underground and would tie-in to existing infrastructure.

Based on PG&E's 2019 power content label, approximately 28.5 percent of PG&E's electricity for its base plan came from eligible renewable resources including solar, wind, geothermal, biomass, and small hydroelectric sources. Additionally, a larger percent of PG&E's total electric power mix was from GHG-free sources including nuclear, large hydroelectric, and eligible renewable sources of energy.[29] In 2020, approximately 85 percent of the electricity PG&E supplied was GHG free. PG&E reports that more than 35 percent of delivered electricity came from RPS-eligible sources in 202, while PGE's 2020 power content label reports 30.6 percent of PG&E's retail sales were from eligible renewable sources.[30]

Methodology

The energy requirements for the proposed project were determined using the construction and operational estimates generated from the Air Quality Analysis (refer to Attachment A for related CalEEMod output files). The calculation worksheets for diesel fuel consumption rates for off-road construction equipment and on-road vehicles are provided in Attachment C. Short-term construction energy consumption is discussed below.

Short-Term Construction

Off-Road Equipment

The proposed project is anticipated to begin construction in 2022, with an end date that has yet to be determined. For modeling purposes, construction was assumed to be completed on November 25, 2024. Table 19 provides estimates of the project's construction fuel consumption from off-road construction equipment for the entire project, categorized by construction activity.

Table 19: Construction Off-Road Fuel Consumption

Project Component	Construction Activity	Fuel Consumption (gallons)
Lakeport Shopping Center Construction (All Phases Combined)	Site Preparation	1,410
	Site Grading	1,984
	Building Construction	60,678
	Paving	1,911
	Architectural Coating	346
Total		**66,329**
Note: Totals may not appear to sum correctly due to rounding Source: Energy Consumption Calculations (Attachment C).		

[29] Pacific Gas & Electric (PG&E). 2020. 2019 Power Content Label. Website: https://www.energy.ca.gov/filebrowser/download/3245. Accessed October 11, 2021.
[30] Pacific Gas & Electric (PG&E). 2021. Corporate Sustainability Report 2021. Website: https://www.pgecorp.com/corp_responsibility/reports/2021/pf04_renewable_energy.html. Accessed October 13, 2021.

As shown in Table 19, construction activities associated with the proposed project would be estimated to consume approximately 66,329 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. 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.

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 20 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 20: Construction On-Road Fuel Consumption

Project Component	Total Annual Fuel Consumption (gallons)
Phase 1 Construction	3,855
Phase 2 Construction	10,715
Phase 3 Construction	23,303
Total	**37,874**
Note: Totals may not appear to sum correctly due to rounding Source: Energy Consumption Calculations (Attachment C).	

Long-Term Operations

Transportation Energy Demand

Table 21 provides an estimate of the daily and annual fuel consumed by vehicles traveling to and from the proposed project. These estimates were derived using the same assumptions used in the operational air quality analysis for the proposed project.

Table 21: 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)	46.5%	9,772	3,566,600	31.83	306.9	112,036
Light Trucks and Medium Duty Vehicles (LDT1, LDT2, MDV)	41.3%	8,678	3,167,416	23.11	375.5	137,052

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)
Light-Heavy to Heavy-Heavy Diesel Trucks (LHD1, LHD2, MHDT, HHDT)	7.6%	1,601	584,423	11.38	140.7	51,341
Motorcycles (MCY)	3.8%	792	289,076	35.65	22.2	8,109
Other (OBUS, UBUS, SBUS, MH)	0.9%	187	68,222	6.83	27.4	9,994
Total	**100%**	**21,029**	**7,675,737**	-	**872.7**	**318,531**

Notes:
Percent of Vehicle Trips and VMT provided by CalEEMod.
"Other" consists of buses and motor homes.
VMT = vehicle miles traveled
Source: Energy Consumption Calculations (Attachment C).

As shown above, daily vehicular fuel consumption is estimated to be 872.7 gallons of gasoline and diesel fuel combined. Annual consumption is estimated at 318,531 gallons.

In terms of land use planning decisions, the proposed project would constitute development within an established community and would not be opening a new geographical area for development such that it would draw mostly new trips or substantially lengthen existing trips. A Traffic Impact Analysis was also completed for the project, which concluded that once operational the project would reduce VMT compared to the regional baseline.[31] For these reasons, it would be expected that vehicular fuel consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than for any other similar land use activities in the region.

Building Energy Demand

As shown in Table 22 and Table 23, the proposed project is estimated to demand 1,754,139 kilowatt-hours (KWhr) of electricity and 3,065,275 1,000-British Thermal Units (KBTU) of natural gas, respectively, on an annual basis.

[31] TJW Engineering, Inc. 2021. Lakeport Shopping Center Traffic Impact Analysis. April 26, 2021.

Table 22: Long-Term Electricity Usage

Land Use	Size (ksf)	Title 24 Electricity Energy Intensity (KWhr/size/ year)	Nontitle 24 Electricity Energy Intensity (KWhr/size/ year)	Lighting Energy Intensity (KWhr/size/ year)	Total Electricity Energy Demand (KWhr/size/ year)	Total Electricity Demand (KWhr/year)
Convenience Market with Gas Pumps	6.16	4.47	2.81	5.7	12,974	79,918
Fast Food Restaurant with Drive Thru	1.85	3.57	15.83	4.74	24,140	44,659
High Turnover (Sit Down Restaurant)	3.20	3.57	15.83	4.74	24,140	77,248
Hotel	101.64	1.81	2.87	2.57	7250	736,890
Other Asphalt Surfaces	67.61	0.00	0.00	0.00	0.00	0.00
Parking Lot	531.87	0.00	0.00	0.35	350	186,154
Recreational Swimming Pool	1.00	0.00	0.00	0.00	0.00	0.00
Regional Shopping Center	48.48	4.47	2.81	5.7	12,980	629,270
Total						**1,754,139**

Notes:
ksf = 1,000 square feet
KWhr= kilowatt hour
Source: Energy Consumption Calculations (Attachment C).

Table 23: Long-Term Natural Gas Usage

Land Use	Size (ksf)	Title 24 Natural Gas Energy Intensity (KBTU/size/year)	Nontitle 24 Natural Gas Energy Intensity (KBTU/size/year)	Total Natural Gas Energy Demand (KBTU/size/year)	Total Natural Gas Demand (KBTU/year)
Convenience Market with Gas Pumps	6.16	7.14	0.00	7,137	43,961
Fast Food Restaurant with Drive Thru	1.85	27.38	88.55	115,930	214,471
High Turnover (Sit Down Restaurant)	3.20	27.38	88.55	115,930	370,976
Hotel	101.64	20.51	0.05	20,560	2,089,720
Other Asphalt Surfaces	67.61	0.00	0.00	0.00	0.00
Parking Lot	531.87	0.00	0.00	0.00	0.00

Recreational Swimming Pool	1.00	0.00	0.00	0.00	0.00
Regional Shopping Center	48.48	7.14	0.00	7,140	346,147
Total					**3,065,275**

Notes:
The proposed project could potentially include a variety of uses consistent with the development standards, however the land use selections above were based on estimating the "worst-case" scenario demand for electricity.
ksf = 1,000 square feet
KBTU= 1,000 British Thermal Units
Source: Energy Consumption Calculations (Attachment C).

Environmental Impact Analysis

This section discusses potential energy impacts associated with the proposed project and provides mitigation measures where necessary.

Impact EN-1 Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Impact Analysis

This impact addresses the energy consumption from both the short-term construction and long-term operations are discussed separately below.

Construction Energy Demand

As summarized in Table 19 and Table 20, the proposed project would require 66,329 gallons of diesel fuel for construction off-road equipment and 37,874 gallons of gasoline and diesel for on-road vehicles 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, and as such, impacts would be less than significant.

Long-Term Energy Demand

Building Energy Demand

Buildings and infrastructure constructed pursuant to the proposed project would comply with the versions of CCR Titles 20 and 24, including California Green Building Standards (CALGreen), that are applicable at the time that building permits are issued. The proposed project is estimated to demand 1,754,139 KWhr of electricity per year and 3,065,275 KBTU of natural gas per year. This would represent an increase in demand for electricity and natural gas.

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 2016 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.

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 commercial development. Compliance with future building code standards would result in increased energy efficiency.

Based on the above information, the proposed project would not result in the inefficient or wasteful consumption of electricity or natural gas, and impacts would be less than significant.

Transportation Energy Demands

The daily vehicular fuel consumption is estimated to be 872.7 gallons of both gasoline and diesel fuel. Annual consumption is estimated at 318,531 gallons. The proposed project would constitute development within an established community and would not be opening a new geographical area for development such that it would draw mostly new trips or substantially lengthen existing trips. The proposed project would be well positioned to accommodate existing population and reduce VMT. A Traffic Impact Analysis was also completed for the project, which concluded that once operational the project would reduce VMT compared to the regional baseline.[32] For these reasons, it would be expected that vehicular fuel consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than for any other similar land use activities in the region, and impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures are necessary.

Level of Significance After Mitigation

Less than significant.

Impact EN-2 Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Impact Analysis

The City's General Plan includes Policy CD 2.7 to promote energy efficiency through the siting and design of new buildings. Additionally, General Plan objectives C-5 and C-6 reduce the reliance on nonrenewable energy sources in existing and new commercial, industrial, and public structures through implementation of energy resource policies to encourage the use of

[32] TJW Engineering, Inc. 2021. Lakeport Shopping Center Traffic Impact Analysis. April 26, 2021.

renewable energy and decrease energy demand.[33] The proposed project would not conflict with any of the energy objectives or policies of the General Plan. The proposed project would constitute development within an established community and would not be opening a new geographical area for development such that it would draw mostly new trips, or substantially lengthen existing trips. The proposed project would be well positioned to accommodate existing population and reduce VMT. A Traffic Impact Analysis was also completed for the project, which concluded that once operational the project would reduce VMT compared to the regional baseline.[34] The proposed project would comply with the versions of CCR Titles 20 and 24, including CALGreen, that are applicable at the time that building permits are issued and with all applicable City measures.

For the above reasons, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures are necessary.

Level of Significance After Mitigation

Less than significant.

[33] City of Lakeport. 2009. General Plan 2025. Website: https://www.cityoflakeport.com/Planning/Lakeport%20General%20Plan%202025/City-of-Lakeport-General-Plan-2025_Augus-8312009103657PM.pdf. Accessed October 11, 2021.

[34] TJW Engineering, Inc. 2021. Lakeport Shopping Center Traffic Impact Analysis. April 26, 2021.

Attachments:

Attachment A – CalEEMod Output

Attachment B – Construction and Operations Health Risk Assessments

Attachment C – Energy Consumption Calculations

Attachment D – Additional Supporting Information

ATTACHMENT A
CalEEMod Output

CalEEMod Output

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Phase 1 Construction and Operations (Unmitigated)

Lake County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.32	Acre	0.32	14,026.32	0
Parking Lot	2.61	Acre	2.61	113,691.60	0
Fast Food Restaurant with Drive Thru	1.85	1000sqft	0.04	1,850.00	0
High Turnover (Sit Down Restaurant)	3.20	1000sqft	0.07	3,200.00	0
Convenience Market with Gas Pumps	6.16	1000sqft	0.14	6,157.00	0
Regional Shopping Center	1.85	1000sqft	0.04	1,850.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	67
Climate Zone	1			**Operational Year**	2022
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction start date and buildout year based on information provided in the Project Description.

Land Use - Phase 1 - Parcels A & B
Land Uses to represent Phase 1 development based on information provided in the project description, TIA, and site plan.

Construction Phase - Phase 1 Construction Start Date: May 1, 2022
Construction Duration: 6 months
No demolition

Off-road Equipment - Adjusted construction equipment usage to match CalEEMod default total building construction HP hours.

Trips and VMT - Additional truck trips were added to each phase for mobilization/demobilization of on-site equipment (two trips per piece of equipment).
Additional vendor trips added to the paving phase to account for delivery of materials.

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Grading - Cut/fill anticipated to be balanced on site (applicant-provided information)

Vehicle Trips - Project-specific trip rates, consistent with trip generation rates presented in the Lakeport Shopping Center Traffic Impact Analysis dated April 26, 2021.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Consumer Products - Updated based on 2017 ARB VOC inventory data and 2017 population estimates based on the State of California's Department of Finance demographic projections were used to estimate a statewide VOC EF for 2017.

Construction Off-road Equipment Mitigation -

Area Mitigation - Building code standard (exterior outlets)

Energy Mitigation -

Water Mitigation - Compliance with the Green Building Code Standards and the Water Efficient Land Use Ordinance.

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	83.00
tblConsumerProducts	ROG_EF	2.14E-05	1.62E-05
tblLandUse	LandUseSquareFeet	13,939.20	14,026.32
tblLandUse	LandUseSquareFeet	6,160.00	6,157.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	9.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	UsageHours	7.00	6.50
tblOffRoadEquipment	UsageHours	8.00	7.40
tblOffRoadEquipment	UsageHours	8.00	7.40
tblOffRoadEquipment	UsageHours	7.00	9.70
tblOffRoadEquipment	UsageHours	8.00	7.40
tblTripsAndVMT	HaulingTripNumber	0.00	14.00

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tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	16.00
tblTripsAndVMT	HaulingTripNumber	0.00	48.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	624.20	533.44
tblVehicleTrips	ST_TR	616.12	754.59
tblVehicleTrips	ST_TR	122.40	122.50
tblVehicleTrips	ST_TR	46.12	45.95
tblVehicleTrips	SU_TR	624.20	533.44
tblVehicleTrips	SU_TR	472.58	754.59
tblVehicleTrips	SU_TR	142.64	142.50
tblVehicleTrips	SU_TR	21.10	21.08
tblVehicleTrips	WD_TR	624.20	533.44
tblVehicleTrips	WD_TR	470.95	754.59
tblVehicleTrips	WD_TR	112.18	112.19
tblVehicleTrips	WD_TR	37.75	37.84

2.0 Emissions Summary

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2022	0.4456	2.1636	2.2659	3.9800e-003	0.1068	0.1071	0.2139	0.0469	0.1006	0.1475	0.0000	346.6833	346.6833	0.0761	4.4900e-003	349.9234
Maximum	**0.4456**	**2.1636**	**2.2659**	**3.9800e-003**	**0.1068**	**0.1071**	**0.2139**	**0.0469**	**0.1006**	**0.1475**	**0.0000**	**346.6833**	**346.6833**	**0.0761**	**4.4900e-003**	**349.9234**

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					
2022	0.4456	2.1636	2.2659	3.9800e-003	0.1068	0.1071	0.2139	0.0469	0.1006	0.1475	0.0000	346.6829	346.6829	0.0761	4.4900e-003	349.9230
Maximum	**0.4456**	**2.1636**	**2.2659**	**3.9800e-003**	**0.1068**	**0.1071**	**0.2139**	**0.0469**	**0.1006**	**0.1475**	**0.0000**	**346.6829**	**346.6829**	**0.0761**	**4.4900e-003**	**349.9230**

	ROG	NOx	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**

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	5-1-2022	7-31-2022	1.1568	1.1568
2	8-1-2022	9-30-2022	1.1040	1.1040
		Highest	1.1568	1.1568

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	0.0664	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.9000e-004	2.9000e-004	0.0000	0.0000	3.0000e-004
Energy	3.4700e-003	0.0315	0.0265	1.9000e-004		2.3900e-003	2.3900e-003		2.3900e-003	2.3900e-003	0.0000	58.8695	58.8695	4.6300e-003	1.1100e-003	59.3164
Mobile	3.4541	2.6296	16.0049	0.0165	1.3406	0.0252	1.3658	0.3594	0.0236	0.3830	0.0000	1,521.2052	1,521.2052	0.2647	0.1384	1,569.0662
Waste						0.0000	0.0000		0.0000	0.0000	16.2068	0.0000	16.2068	0.9578	0.0000	40.1517
Water						0.0000	0.0000		0.0000	0.0000	0.6745	1.2139	1.8884	0.0695	1.6600e-003	4.1200
Total	**3.5240**	**2.6611**	**16.0315**	**0.0167**	**1.3406**	**0.0276**	**1.3682**	**0.3594**	**0.0260**	**0.3854**	**16.8813**	**1,581.2889**	**1,598.1702**	**1.2966**	**0.1412**	**1,672.6545**

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.0664	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.8000e-004	2.8000e-004	0.0000	0.0000	3.0000e-004
Energy	3.4700e-003	0.0315	0.0265	1.9000e-004		2.3900e-003	2.3900e-003		2.3900e-003	2.3900e-003	0.0000	58.8695	58.8695	4.6300e-003	1.1100e-003	59.3164
Mobile	3.4541	2.6296	16.0049	0.0165	1.3406	0.0252	1.3658	0.3594	0.0236	0.3830	0.0000	1,521.2052	1,521.2052	0.2647	0.1384	1,569.0662
Waste						0.0000	0.0000		0.0000	0.0000	16.2068	0.0000	16.2068	0.9578	0.0000	40.1517
Water						0.0000	0.0000		0.0000	0.0000	0.5396	0.9711	1.5108	0.0556	1.3300e-003	3.2960
Total	**3.5240**	**2.6611**	**16.0315**	**0.0167**	**1.3406**	**0.0276**	**1.3682**	**0.3594**	**0.0260**	**0.3854**	**16.7464**	**1,581.0461**	**1,597.7925**	**1.2827**	**0.1408**	**1,671.8305**

	ROG	NOx	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**	**0.80**	**0.02**	**0.02**	**1.07**	**0.23**	**0.05**

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	5/1/2022	5/6/2022	5	5	
2	Grading	Grading	5/7/2022	5/18/2022	5	8	
3	Paving	Paving	5/19/2022	6/13/2022	5	18	

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4	Building Construction	Building Construction	6/14/2022	10/6/2022	5	83	Adjusted to match applicant-provided schedule
5	Architectural Coating	Architectural Coating	10/7/2022	11/1/2022	5	18	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 2.93

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 19,586; Non-Residential Outdoor: 6,529; Striped Parking Area: 7,663 (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	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	3	6.50	231	0.29
Building Construction	Forklifts	9	7.40	89	0.20
Building Construction	Generator Sets	3	7.40	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	9.70	97	0.37
Building Construction	Welders	3	7.40	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	12.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	4.00	16.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	24	58.00	23.00	48.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 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					
Fugitive Dust					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.9300e-003	0.0827	0.0492	1.0000e-004		4.0300e-003	4.0300e-003		3.7100e-003	3.7100e-003	0.0000	8.3599	8.3599	2.7000e-003	0.0000	8.4274
Total	**7.9300e-003**	**0.0827**	**0.0492**	**1.0000e-004**	**0.0491**	**4.0300e-003**	**0.0532**	**0.0253**	**3.7100e-003**	**0.0290**	**0.0000**	**8.3599**	**8.3599**	**2.7000e-003**	**0.0000**	**8.4274**

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 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	4.0000e-005	1.7000e-003	2.3000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4542	0.4542	0.0000	7.0000e-005	0.4755
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	2.1000e-004	2.0000e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3130	0.3130	2.0000e-005	1.0000e-005	0.3176
Total	**3.5000e-004**	**1.9100e-003**	**2.2300e-003**	**0.0000**	**4.7000e-004**	**1.0000e-005**	**4.9000e-004**	**1.2000e-004**	**1.0000e-005**	**1.5000e-004**	**0.0000**	**0.7672**	**0.7672**	**2.0000e-005**	**8.0000e-005**	**0.7932**

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					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.9300e-003	0.0827	0.0492	1.0000e-004		4.0300e-003	4.0300e-003		3.7100e-003	3.7100e-003	0.0000	8.3598	8.3598	2.7000e-003	0.0000	8.4274
Total	**7.9300e-003**	**0.0827**	**0.0492**	**1.0000e-004**	**0.0491**	**4.0300e-003**	**0.0532**	**0.0253**	**3.7100e-003**	**0.0290**	**0.0000**	**8.3598**	**8.3598**	**2.7000e-003**	**0.0000**	**8.4274**

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 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	4.0000e-005	1.7000e-003	2.3000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4542	0.4542	0.0000	7.0000e-005	0.4755
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	2.1000e-004	2.0000e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3130	0.3130	2.0000e-005	1.0000e-005	0.3176
Total	**3.5000e-004**	**1.9100e-003**	**2.2300e-003**	**0.0000**	**4.7000e-004**	**1.0000e-005**	**4.9000e-004**	**1.2000e-004**	**1.0000e-005**	**1.5000e-004**	**0.0000**	**0.7672**	**0.7672**	**2.0000e-005**	**8.0000e-005**	**0.7932**

3.3 Grading - 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					
Fugitive Dust					0.0283	0.0000	0.0283	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7900e-003	0.0834	0.0611	1.2000e-004		3.7600e-003	3.7600e-003		3.4600e-003	3.4600e-003	0.0000	10.4219	10.4219	3.3700e-003	0.0000	10.5062
Total	**7.7900e-003**	**0.0834**	**0.0611**	**1.2000e-004**	**0.0283**	**3.7600e-003**	**0.0321**	**0.0137**	**3.4600e-003**	**0.0172**	**0.0000**	**10.4219**	**10.4219**	**3.3700e-003**	**0.0000**	**10.5062**

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 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	4.0000e-005	1.4500e-003	2.0000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3893	0.3893	0.0000	6.0000e-005	0.4076
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2000e-004	2.8000e-004	2.6700e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4173	0.4173	2.0000e-005	2.0000e-005	0.4235
Total	**4.6000e-004**	**1.7300e-003**	**2.8700e-003**	**0.0000**	**5.7000e-004**	**1.0000e-005**	**5.9000e-004**	**1.6000e-004**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**0.8066**	**0.8066**	**2.0000e-005**	**8.0000e-005**	**0.8311**

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					0.0283	0.0000	0.0283	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7900e-003	0.0834	0.0611	1.2000e-004		3.7600e-003	3.7600e-003		3.4600e-003	3.4600e-003	0.0000	10.4219	10.4219	3.3700e-003	0.0000	10.5062
Total	**7.7900e-003**	**0.0834**	**0.0611**	**1.2000e-004**	**0.0283**	**3.7600e-003**	**0.0321**	**0.0137**	**3.4600e-003**	**0.0172**	**0.0000**	**10.4219**	**10.4219**	**3.3700e-003**	**0.0000**	**10.5062**

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 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	4.0000e-005	1.4500e-003	2.0000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3893	0.3893	0.0000	6.0000e-005	0.4076
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2000e-004	2.8000e-004	2.6700e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4173	0.4173	2.0000e-005	2.0000e-005	0.4235
Total	**4.6000e-004**	**1.7300e-003**	**2.8700e-003**	**0.0000**	**5.7000e-004**	**1.0000e-005**	**5.9000e-004**	**1.6000e-004**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**0.8066**	**0.8066**	**2.0000e-005**	**8.0000e-005**	**0.8311**

3.4 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	8.7900e-003	0.0857	0.1098	1.7000e-004		4.3900e-003	4.3900e-003		4.0500e-003	4.0500e-003	0.0000	14.7383	14.7383	4.6300e-003	0.0000	14.8540
Paving	3.8400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0126**	**0.0857**	**0.1098**	**1.7000e-004**		**4.3900e-003**	**4.3900e-003**		**4.0500e-003**	**4.0500e-003**	**0.0000**	**14.7383**	**14.7383**	**4.6300e-003**	**0.0000**	**14.8540**

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 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	5.0000e-005	1.9400e-003	2.6000e-004	1.0000e-005	1.3000e-004	2.0000e-005	1.5000e-004	4.0000e-005	2.0000e-005	5.0000e-005	0.0000	0.5191	0.5191	0.0000	8.0000e-005	0.5435
Vendor	1.2000e-004	2.7500e-003	7.0000e-004	1.0000e-005	2.4000e-004	3.0000e-005	2.6000e-004	7.0000e-005	3.0000e-005	9.0000e-005	0.0000	0.7798	0.7798	1.0000e-005	1.1000e-004	0.8140
Worker	1.2500e-003	8.3000e-004	8.0000e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2519	1.2519	7.0000e-005	6.0000e-005	1.2705
Total	**1.4200e-003**	**5.5200e-003**	**8.9600e-003**	**3.0000e-005**	**1.7900e-003**	**6.0000e-005**	**1.8400e-003**	**4.9000e-004**	**6.0000e-005**	**5.3000e-004**	**0.0000**	**2.5508**	**2.5508**	**8.0000e-005**	**2.5000e-004**	**2.6279**

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	8.7900e-003	0.0857	0.1098	1.7000e-004		4.3900e-003	4.3900e-003		4.0500e-003	4.0500e-003	0.0000	14.7383	14.7383	4.6300e-003	0.0000	14.8540
Paving	3.8400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0126**	**0.0857**	**0.1098**	**1.7000e-004**		**4.3900e-003**	**4.3900e-003**		**4.0500e-003**	**4.0500e-003**	**0.0000**	**14.7383**	**14.7383**	**4.6300e-003**	**0.0000**	**14.8540**

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 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	5.0000e-005	1.9400e-003	2.6000e-004	1.0000e-005	1.3000e-004	2.0000e-005	1.5000e-004	4.0000e-005	2.0000e-005	5.0000e-005	0.0000	0.5191	0.5191	0.0000	8.0000e-005	0.5435
Vendor	1.2000e-004	2.7500e-003	7.0000e-004	1.0000e-005	2.4000e-004	3.0000e-005	2.6000e-004	7.0000e-005	3.0000e-005	9.0000e-005	0.0000	0.7798	0.7798	1.0000e-005	1.1000e-004	0.8140
Worker	1.2500e-003	8.3000e-004	8.0000e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2519	1.2519	7.0000e-005	6.0000e-005	1.2705
Total	**1.4200e-003**	**5.5200e-003**	**8.9600e-003**	**3.0000e-005**	**1.7900e-003**	**6.0000e-005**	**1.8400e-003**	**4.9000e-004**	**6.0000e-005**	**5.3000e-004**	**0.0000**	**2.5508**	**2.5508**	**8.0000e-005**	**2.5000e-004**	**2.6279**

3.5 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	0.1966	1.7993	1.8843	3.1000e-003		0.0932	0.0932		0.0877	0.0877	0.0000	266.9515	266.9515	0.0640	0.0000	268.5505
Total	**0.1966**	**1.7993**	**1.8843**	**3.1000e-003**		**0.0932**	**0.0932**		**0.0877**	**0.0877**	**0.0000**	**266.9515**	**266.9515**	**0.0640**	**0.0000**	**268.5505**

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 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	1.4000e-004	5.8200e-003	7.9000e-004	2.0000e-005	4.0000e-004	5.0000e-005	4.5000e-004	1.1000e-004	5.0000e-005	1.6000e-004	0.0000	1.5573	1.5573	1.0000e-005	2.4000e-004	1.6304
Vendor	3.3100e-003	0.0729	0.0184	2.2000e-004	6.2400e-003	7.1000e-004	6.9600e-003	1.8100e-003	6.8000e-004	2.4900e-003	0.0000	20.6753	20.6753	1.4000e-004	3.0300e-003	21.5811
Worker	0.0167	0.0112	0.1070	1.8000e-004	0.0190	1.5000e-004	0.0191	5.0500e-003	1.4000e-004	5.1900e-003	0.0000	16.7406	16.7406	9.3000e-004	7.6000e-004	16.9896
Total	**0.0201**	**0.0899**	**0.1263**	**4.2000e-004**	**0.0256**	**9.1000e-004**	**0.0266**	**6.9700e-003**	**8.7000e-004**	**7.8400e-003**	**0.0000**	**38.9732**	**38.9732**	**1.0800e-003**	**4.0300e-003**	**40.2011**

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	0.1966	1.7993	1.8843	3.1000e-003		0.0932	0.0932		0.0877	0.0877	0.0000	266.9512	266.9512	0.0640	0.0000	268.5502
Total	**0.1966**	**1.7993**	**1.8843**	**3.1000e-003**		**0.0932**	**0.0932**		**0.0877**	**0.0877**	**0.0000**	**266.9512**	**266.9512**	**0.0640**	**0.0000**	**268.5502**

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 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	1.4000e-004	5.8200e-003	7.9000e-004	2.0000e-005	4.0000e-004	5.0000e-005	4.5000e-004	1.1000e-004	5.0000e-005	1.6000e-004	0.0000	1.5573	1.5573	1.0000e-005	2.4000e-004	1.6304
Vendor	3.3100e-003	0.0729	0.0184	2.2000e-004	6.2400e-003	7.1000e-004	6.9600e-003	1.8100e-003	6.8000e-004	2.4900e-003	0.0000	20.6753	20.6753	1.4000e-004	3.0300e-003	21.5811
Worker	0.0167	0.0112	0.1070	1.8000e-004	0.0190	1.5000e-004	0.0191	5.0500e-003	1.4000e-004	5.1900e-003	0.0000	16.7406	16.7406	9.3000e-004	7.6000e-004	16.9896
Total	**0.0201**	**0.0899**	**0.1263**	**4.2000e-004**	**0.0256**	**9.1000e-004**	**0.0266**	**6.9700e-003**	**8.7000e-004**	**7.8400e-003**	**0.0000**	**38.9732**	**38.9732**	**1.0800e-003**	**4.0300e-003**	**40.2011**

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	0.1957					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0127	0.0163	3.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	2.2979	2.2979	1.5000e-004	0.0000	2.3017
Total	**0.1975**	**0.0127**	**0.0163**	**3.0000e-005**		**7.4000e-004**	**7.4000e-004**		**7.4000e-004**	**7.4000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.5000e-004**	**0.0000**	**2.3017**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.0000e-005	2.4000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0649	0.0649	0.0000	1.0000e-005	0.0679
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	5.0000e-004	4.8000e-003	1.0000e-005	8.5000e-004	1.0000e-005	8.6000e-004	2.3000e-004	1.0000e-005	2.3000e-004	0.0000	0.7511	0.7511	4.0000e-005	3.0000e-005	0.7623
Total	**7.6000e-004**	**7.4000e-004**	**4.8300e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.8000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.8160**	**0.8160**	**4.0000e-005**	**4.0000e-005**	**0.8302**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1957					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0127	0.0163	3.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	2.2979	2.2979	1.5000e-004	0.0000	2.3017
Total	**0.1975**	**0.0127**	**0.0163**	**3.0000e-005**		**7.4000e-004**	**7.4000e-004**		**7.4000e-004**	**7.4000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.5000e-004**	**0.0000**	**2.3017**

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.0000e-005	2.4000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0649	0.0649	0.0000	1.0000e-005	0.0679
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	5.0000e-004	4.8000e-003	1.0000e-005	8.5000e-004	1.0000e-005	8.6000e-004	2.3000e-004	1.0000e-005	2.3000e-004	0.0000	0.7511	0.7511	4.0000e-005	3.0000e-005	0.7623
Total	**7.6000e-004**	**7.4000e-004**	**4.8300e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.8000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.8160**	**0.8160**	**4.0000e-005**	**4.0000e-005**	**0.8302**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

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	tons/yr										MT/yr					
Mitigated	3.4541	2.6296	16.0049	0.0165	1.3406	0.0252	1.3658	0.3594	0.0236	0.3830	0.0000	1,521.2052	1,521.2052	0.2647	0.1384	1,569.0662
Unmitigated	3.4541	2.6296	16.0049	0.0165	1.3406	0.0252	1.3658	0.3594	0.0236	0.3830	0.0000	1,521.2052	1,521.2052	0.2647	0.1384	1,569.0662

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	3,286.00	3,286.00	3286.00	1,762,624	1,762,624
Fast Food Restaurant with Drive Thru	1,396.00	1,396.00	1396.00	1,304,318	1,304,318
High Turnover (Sit Down Restaurant)	359.00	392.00	456.00	438,083	438,083
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	70.00	85.00	39.00	118,724	118,724
Total	5,111.00	5,159.00	5,177.00	3,623,749	3,623,749

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
Convenience Market with Gas	9.50	7.30	7.30	0.80	80.20	19.00	14	21	65
Fast Food Restaurant with Drive	9.50	7.30	7.30	2.20	78.80	19.00	29	21	50
High Turnover (Sit Down	9.50	7.30	7.30	8.50	72.50	19.00	37	20	43
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.447993	0.068263	0.190544	0.162475	0.057163	0.010407	0.008547	0.005883	0.000437	0.000000	0.038470	0.001253	0.008567
Fast Food Restaurant with Drive Thru	0.447993	0.068263	0.190544	0.162475	0.057163	0.010407	0.008547	0.005883	0.000437	0.000000	0.038470	0.001253	0.008567
High Turnover (Sit Down Restaurant)	0.447993	0.068263	0.190544	0.162475	0.057163	0.010407	0.008547	0.005883	0.000437	0.000000	0.038470	0.001253	0.008567
Other Asphalt Surfaces	0.447993	0.068263	0.190544	0.162475	0.057163	0.010407	0.008547	0.005883	0.000437	0.000000	0.038470	0.001253	0.008567
Parking Lot	0.447993	0.068263	0.190544	0.162475	0.057163	0.010407	0.008547	0.005883	0.000437	0.000000	0.038470	0.001253	0.008567
Regional Shopping Center	0.447993	0.068263	0.190544	0.162475	0.057163	0.010407	0.008547	0.005883	0.000437	0.000000	0.038470	0.001253	0.008567

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	24.5771	24.5771	3.9800e-003	4.8000e-004	24.8201
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	24.5771	24.5771	3.9800e-003	4.8000e-004	24.8201
NaturalGas Mitigated	3.4700e-003	0.0315	0.0265	1.9000e-004		2.3900e-003	2.3900e-003		2.3900e-003	2.3900e-003	0.0000	34.2925	34.2925	6.6000e-004	6.3000e-004	34.4963
NaturalGas Unmitigated	3.4700e-003	0.0315	0.0265	1.9000e-004		2.3900e-003	2.3900e-003		2.3900e-003	2.3900e-003	0.0000	34.2925	34.2925	6.6000e-004	6.3000e-004	34.4963

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
Convenience Market with Gas Pumps	43961	2.4000e-004	2.1500e-003	1.8100e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3459	2.3459	4.0000e-005	4.0000e-005	2.3599
Fast Food Restaurant with Drive Thru	214471	1.1600e-003	0.0105	8.8300e-003	6.0000e-005		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004	0.0000	11.4450	11.4450	2.2000e-004	2.1000e-004	11.5130
High Turnover (Sit Down Restaurant)	370976	2.0000e-003	0.0182	0.0153	1.1000e-004		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003	0.0000	19.7967	19.7967	3.8000e-004	3.6000e-004	19.9143
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	13209	7.0000e-005	6.5000e-004	5.4000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7049	0.7049	1.0000e-005	1.0000e-005	0.7091
Total		**3.4700e-003**	**0.0315**	**0.0265**	**1.8000e-004**		**2.3900e-003**	**2.3900e-003**		**2.3900e-003**	**2.3900e-003**	**0.0000**	**34.2925**	**34.2925**	**6.5000e-004**	**6.2000e-004**	**34.4962**

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
Convenience Market with Gas Pumps	43961	2.4000e-004	2.1500e-003	1.8100e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3459	2.3459	4.0000e-005	4.0000e-005	2.3599
Fast Food Restaurant with Drive Thru	214471	1.1600e-003	0.0105	8.8300e-003	6.0000e-005		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004	0.0000	11.4450	11.4450	2.2000e-004	2.1000e-004	11.5130
High Turnover (Sit Down Restaurant)	370976	2.0000e-003	0.0182	0.0153	1.1000e-004		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003	0.0000	19.7967	19.7967	3.8000e-004	3.6000e-004	19.9143
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	13209	7.0000e-005	6.5000e-004	5.4000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7049	0.7049	1.0000e-005	1.0000e-005	0.7091
Total		**3.4700e-003**	**0.0315**	**0.0265**	**1.8000e-004**		**2.3900e-003**	**2.3900e-003**		**2.3900e-003**	**2.3900e-003**	**0.0000**	**34.2925**	**34.2925**	**6.5000e-004**	**6.2000e-004**	**34.4962**

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	79917.9	7.3943	1.2000e-003	1.5000e-004	7.4674
Fast Food Restaurant with Drive Thru	44659	4.1320	6.7000e-004	8.0000e-005	4.1729
High Turnover (Sit Down Restaurant)	77248	7.1473	1.1600e-003	1.4000e-004	7.2180
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	39792.1	3.6817	6.0000e-004	7.0000e-005	3.7181
Regional Shopping Center	24013	2.2218	3.6000e-004	4.0000e-005	2.2437
Total		**24.5771**	**3.9900e-003**	**4.8000e-004**	**24.8201**

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	79917.9	7.3943	1.2000e-003	1.5000e-004	7.4674
Fast Food Restaurant with Drive Thru	44659	4.1320	6.7000e-004	8.0000e-005	4.1729
High Turnover (Sit Down Restaurant)	77248	7.1473	1.1600e-003	1.4000e-004	7.2180
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	39792.1	3.6817	6.0000e-004	7.0000e-005	3.7181
Regional Shopping Center	24013	2.2218	3.6000e-004	4.0000e-005	2.2437
Total		**24.5771**	**3.9900e-003**	**4.8000e-004**	**24.8201**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

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	tons/yr										MT/yr					
Mitigated	0.0664	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.8000e-004	2.8000e-004	0.0000	0.0000	3.0000e-004
Unmitigated	0.0664	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.9000e-004	2.9000e-004	0.0000	0.0000	3.0000e-004

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	0.0196					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0469					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.9000e-004	2.9000e-004	0.0000	0.0000	3.0000e-004
Total	**0.0664**	**0.0000**	**1.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.9000e-004**	**2.9000e-004**	**0.0000**	**0.0000**	**3.0000e-004**

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0196					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0469					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.8000e-004	2.8000e-004	0.0000	0.0000	3.0000e-004
Total	**0.0664**	**0.0000**	**1.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.8000e-004**	**2.8000e-004**	**0.0000**	**0.0000**	**3.0000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.5108	0.0556	1.3300e-003	3.2960
Unmitigated	1.8884	0.0695	1.6600e-003	4.1200

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.456287 / 0.27966	0.4638	0.0149	3.6000e-004	0.9432
Fast Food Restaurant with Drive Thru	0.561537 / 0.0358428	0.4709	0.0184	4.4000e-004	1.0600
High Turnover (Sit Down Restaurant)	0.971308 / 0.0619984	0.8145	0.0317	7.6000e-004	1.8335
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.137034 / 0.0839887	0.1393	4.4800e-003	1.1000e-004	0.2833
Total		**1.8884**	**0.0695**	**1.6700e-003**	**4.1200**

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.365029 / 0.223728	0.3710	0.0119	2.9000e-004	0.7546
Fast Food Restaurant with Drive Thru	0.44923 / 0.0286742	0.3767	0.0147	3.5000e-004	0.8480
High Turnover (Sit Down Restaurant)	0.777046 / 0.0495987	0.6516	0.0254	6.1000e-004	1.4668
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.109627 / 0.0671909	0.1114	3.5800e-003	9.0000e-005	0.2266
Total		**1.5108**	**0.0556**	**1.3400e-003**	**3.2960**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	16.2068	0.9578	0.0000	40.1517
Unmitigated	16.2068	0.9578	0.0000	40.1517

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market with Gas Pumps	18.51	3.7574	0.2221	0.0000	9.3087
Fast Food Restaurant with Drive Thru	21.31	4.3257	0.2556	0.0000	10.7168
High Turnover (Sit Down Restaurant)	38.08	7.7299	0.4568	0.0000	19.1505
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.94	0.3938	0.0233	0.0000	0.9756
Total		**16.2068**	**0.9578**	**0.0000**	**40.1517**

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market with Gas Pumps	18.51	3.7574	0.2221	0.0000	9.3087
Fast Food Restaurant with Drive Thru	21.31	4.3257	0.2556	0.0000	10.7168
High Turnover (Sit Down Restaurant)	38.08	7.7299	0.4568	0.0000	19.1505
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.94	0.3938	0.0233	0.0000	0.9756
Total		**16.2068**	**0.9578**	**0.0000**	**40.1517**

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

Phase 1 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Phase 2 Construction and Operations (Unmitigated)

Lake County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.38	Acre	0.38	16,552.80	0
Parking Lot	3.06	Acre	3.06	133,293.60	0
Hotel	70.00	Room	0.34	101,640.00	0
Recreational Swimming Pool	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	67
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Phase 2
Construction start date and buildout year based on information provided in the Project Description

Land Use - Phase 2 - Parcel D
Land Uses to represent Phase 2 development based on information provided in the project description and TIA.
Estimate of acreage for Parcel D based on site plan dated August 2021.

Construction Phase - Phase 2 Construction Start Date: January 1, 2023
Construction Duration: 9 months
No demolition

Off-road Equipment - Adjusted construction equipment usage to match CalEEMod default total building construction HP hours.

Trips and VMT - Additional truck trips were added to each phase for mobilization/demobilization of on-site equipment (two trips per piece of equipment).
Additional vendor trips added to the paving phase to account for delivery of materials.

Grading - Cut/fill anticipated to be balanced on site (applicant-provided information)

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Vehicle Trips - ITE Manual 10th Ed trip generation rates, consistent with trip generation rates presented in the Lakeport Shopping Center Traffic Impact Analysis dated April 26, 2021.

Consumer Products - Updated based on 2017 ARB VOC inventory data and 2017 population estimates based on the State of California's Department of Finance demographic projections were used to estimate a statewide VOC EF for 2017.

Area Mitigation - Building code standards (exterior outlets)

Energy Mitigation -

Water Mitigation - Compliance with the Green Building Code Standards and the Water Efficient Land Use Ordinance

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	147.00
tblConsumerProducts	ROG_EF	2.14E-05	1.62E-05
tblLandUse	LotAcreage	2.33	0.34
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	5.50
tblOffRoadEquipment	UsageHours	8.00	6.30
tblOffRoadEquipment	UsageHours	8.00	6.30
tblOffRoadEquipment	UsageHours	7.00	5.50
tblOffRoadEquipment	UsageHours	8.00	6.30
tblTripsAndVMT	HaulingTripNumber	0.00	14.00
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	16.00
tblTripsAndVMT	HaulingTripNumber	0.00	36.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	SU_TR	13.60	0.00

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	WD_TR	28.82	0.00

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	1.5004	2.1289	2.4882	4.8300e-003	0.1633	0.0934	0.2567	0.0623	0.0877	0.1500	0.0000	426.1927	426.1927	0.0777	0.0121	431.7434
Maximum	**1.5004**	**2.1289**	**2.4882**	**4.8300e-003**	**0.1633**	**0.0934**	**0.2567**	**0.0623**	**0.0877**	**0.1500**	**0.0000**	**426.1927**	**426.1927**	**0.0777**	**0.0121**	**431.7434**

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	1.5004	2.1289	2.4882	4.8300e-003	0.1633	0.0934	0.2567	0.0623	0.0877	0.1500	0.0000	426.1924	426.1924	0.0777	0.0121	431.7431
Maximum	**1.5004**	**2.1289**	**2.4882**	**4.8300e-003**	**0.1633**	**0.0934**	**0.2567**	**0.0623**	**0.0877**	**0.1500**	**0.0000**	**426.1924**	**426.1924**	**0.0777**	**0.0121**	**431.7431**

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

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**	**0.01**	**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**	0.7308	0.7308
2	**4-1-2023**	**6-30-2023**	0.9375	0.9375
3	**7-1-2023**	**9-30-2023**	1.8879	1.8879
		Highest	1.8879	1.8879

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	0.4336	1.0000e-005	6.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3300e-003	1.3300e-003	0.0000	0.0000	1.4200e-003
Energy	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	184.0117	184.0117	0.0139	3.4700e-003	185.3912
Mobile	0.4578	0.5460	3.2134	4.4300e-003	0.3929	5.5700e-003	0.3985	0.1053	5.2400e-003	0.1105	0.0000	407.9556	407.9556	0.0409	0.0270	417.0263
Waste						0.0000	0.0000		0.0000	0.0000	8.9357	0.0000	8.9357	0.5281	0.0000	22.1377
Water						0.0000	0.0000		0.0000	0.0000	0.5821	0.9942	1.5763	0.0600	1.4300e-003	3.5015
Total	**0.9027**	**0.6484**	**3.3001**	**5.0400e-003**	**0.3929**	**0.0134**	**0.4063**	**0.1053**	**0.0130**	**0.1183**	**9.5178**	**592.9628**	**602.4806**	**0.6428**	**0.0319**	**628.0582**

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.4336	1.0000e-005	6.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3100e-003	1.3100e-003	0.0000	0.0000	1.4000e-003
Energy	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	184.0117	184.0117	0.0139	3.4700e-003	185.3912
Mobile	0.4578	0.5460	3.2134	4.4300e-003	0.3929	5.5700e-003	0.3985	0.1053	5.2400e-003	0.1105	0.0000	407.9556	407.9556	0.0409	0.0270	417.0263
Waste						0.0000	0.0000		0.0000	0.0000	8.9357	0.0000	8.9357	0.5281	0.0000	22.1377
Water						0.0000	0.0000		0.0000	0.0000	0.4657	0.7954	1.2611	0.0480	1.1400e-003	2.8012
Total	**0.9027**	**0.6484**	**3.3001**	**5.0400e-003**	**0.3929**	**0.0134**	**0.4063**	**0.1053**	**0.0130**	**0.1183**	**9.4013**	**592.7639**	**602.1653**	**0.6309**	**0.0316**	**627.3579**

	ROG	NOx	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**	**1.22**	**0.03**	**0.05**	**1.87**	**0.91**	**0.11**

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	1/6/2023	5	5	
2	Grading	Grading	1/7/2023	1/18/2023	5	8	
3	Paving	Paving	1/19/2023	2/13/2023	5	18	

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Building Construction	Building Construction	2/14/2023	9/6/2023	5	147	Adjusted to match applicant-provided schedule
5	Architectural Coating	Architectural Coating	9/7/2023	10/2/2023	5	18	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 3.44

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 152,610; Non-Residential Outdoor: 50,870; Striped Parking Area: 8,991 (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	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	2	5.50	231	0.29
Building Construction	Forklifts	6	6.30	89	0.20
Building Construction	Generator Sets	2	6.30	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	5.50	97	0.37
Building Construction	Welders	2	6.30	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	12.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	4.00	16.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	106.00	41.00	36.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	21.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0688	0.0456	1.0000e-004		3.1700e-003	3.1700e-003		2.9100e-003	2.9100e-003	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303
Total	**6.6500e-003**	**0.0688**	**0.0456**	**1.0000e-004**	**0.0491**	**3.1700e-003**	**0.0523**	**0.0253**	**2.9100e-003**	**0.0282**	**0.0000**	**8.3627**	**8.3627**	**2.7000e-003**	**0.0000**	**8.4303**

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.4100e-003	1.9000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.4386	0.4386	0.0000	7.0000e-005	0.4592
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	1.8000e-004	1.7900e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3037	0.3037	2.0000e-005	1.0000e-005	0.3079
Total	**3.1000e-004**	**1.5900e-003**	**1.9800e-003**	**0.0000**	**4.7000e-004**	**1.0000e-005**	**4.9000e-004**	**1.2000e-004**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**0.7423**	**0.7423**	**2.0000e-005**	**8.0000e-005**	**0.7671**

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					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0688	0.0456	1.0000e-004		3.1700e-003	3.1700e-003		2.9100e-003	2.9100e-003	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303
Total	**6.6500e-003**	**0.0688**	**0.0456**	**1.0000e-004**	**0.0491**	**3.1700e-003**	**0.0523**	**0.0253**	**2.9100e-003**	**0.0282**	**0.0000**	**8.3627**	**8.3627**	**2.7000e-003**	**0.0000**	**8.4303**

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.4100e-003	1.9000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.4386	0.4386	0.0000	7.0000e-005	0.4592
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	1.8000e-004	1.7900e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3037	0.3037	2.0000e-005	1.0000e-005	0.3079
Total	**3.1000e-004**	**1.5900e-003**	**1.9800e-003**	**0.0000**	**4.7000e-004**	**1.0000e-005**	**4.9000e-004**	**1.2000e-004**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**0.7423**	**0.7423**	**2.0000e-005**	**8.0000e-005**	**0.7671**

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					0.0283	0.0000	0.0283	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8400e-003	0.0717	0.0590	1.2000e-004		3.1000e-003	3.1000e-003		2.8500e-003	2.8500e-003	0.0000	10.4243	10.4243	3.3700e-003	0.0000	10.5085
Total	**6.8400e-003**	**0.0717**	**0.0590**	**1.2000e-004**	**0.0283**	**3.1000e-003**	**0.0314**	**0.0137**	**2.8500e-003**	**0.0166**	**0.0000**	**10.4243**	**10.4243**	**3.3700e-003**	**0.0000**	**10.5085**

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.2100e-003	1.6000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3760	0.3760	0.0000	6.0000e-005	0.3936
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	3.9000e-004	2.4000e-004	2.3900e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4049	0.4049	2.0000e-005	2.0000e-005	0.4105
Total	**4.1000e-004**	**1.4500e-003**	**2.5500e-003**	**0.0000**	**5.7000e-004**	**1.0000e-005**	**5.9000e-004**	**1.6000e-004**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**0.7809**	**0.7809**	**2.0000e-005**	**8.0000e-005**	**0.8041**

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					0.0283	0.0000	0.0283	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8400e-003	0.0717	0.0590	1.2000e-004		3.1000e-003	3.1000e-003		2.8500e-003	2.8500e-003	0.0000	10.4242	10.4242	3.3700e-003	0.0000	10.5085
Total	**6.8400e-003**	**0.0717**	**0.0590**	**1.2000e-004**	**0.0283**	**3.1000e-003**	**0.0314**	**0.0137**	**2.8500e-003**	**0.0166**	**0.0000**	**10.4242**	**10.4242**	**3.3700e-003**	**0.0000**	**10.5085**

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.2100e-003	1.6000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3760	0.3760	0.0000	6.0000e-005	0.3936
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	3.9000e-004	2.4000e-004	2.3900e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4049	0.4049	2.0000e-005	2.0000e-005	0.4105
Total	**4.1000e-004**	**1.4500e-003**	**2.5500e-003**	**0.0000**	**5.7000e-004**	**1.0000e-005**	**5.9000e-004**	**1.6000e-004**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**0.7809**	**0.7809**	**2.0000e-005**	**8.0000e-005**	**0.8041**

3.4 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	8.2600e-003	0.0791	0.1097	1.7000e-004		3.9200e-003	3.9200e-003		3.6200e-003	3.6200e-003	0.0000	14.7407	14.7407	4.6300e-003	0.0000	14.8565
Paving	4.5100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0128**	**0.0791**	**0.1097**	**1.7000e-004**		**3.9200e-003**	**3.9200e-003**		**3.6200e-003**	**3.6200e-003**	**0.0000**	**14.7407**	**14.7407**	**4.6300e-003**	**0.0000**	**14.8565**

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 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	2.0000e-005	1.6100e-003	2.2000e-004	1.0000e-005	1.3000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5013	0.5013	0.0000	8.0000e-005	0.5248
Vendor	7.0000e-005	2.2700e-003	5.7000e-004	1.0000e-005	2.4000e-004	1.0000e-005	2.5000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	0.7561	0.7561	0.0000	1.1000e-004	0.7891
Worker	1.1600e-003	7.3000e-004	7.1800e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2147	1.2147	6.0000e-005	5.0000e-005	1.2316
Total	**1.2500e-003**	**4.6100e-003**	**7.9700e-003**	**3.0000e-005**	**1.7900e-003**	**3.0000e-005**	**1.8300e-003**	**4.9000e-004**	**3.0000e-005**	**5.2000e-004**	**0.0000**	**2.4721**	**2.4721**	**6.0000e-005**	**2.4000e-004**	**2.5455**

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	8.2600e-003	0.0791	0.1097	1.7000e-004		3.9200e-003	3.9200e-003		3.6200e-003	3.6200e-003	0.0000	14.7407	14.7407	4.6300e-003	0.0000	14.8565
Paving	4.5100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0128**	**0.0791**	**0.1097**	**1.7000e-004**		**3.9200e-003**	**3.9200e-003**		**3.6200e-003**	**3.6200e-003**	**0.0000**	**14.7407**	**14.7407**	**4.6300e-003**	**0.0000**	**14.8565**

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 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	2.0000e-005	1.6100e-003	2.2000e-004	1.0000e-005	1.3000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5013	0.5013	0.0000	8.0000e-005	0.5248
Vendor	7.0000e-005	2.2700e-003	5.7000e-004	1.0000e-005	2.4000e-004	1.0000e-005	2.5000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	0.7561	0.7561	0.0000	1.1000e-004	0.7891
Worker	1.1600e-003	7.3000e-004	7.1800e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2147	1.2147	6.0000e-005	5.0000e-005	1.2316
Total	**1.2500e-003**	**4.6100e-003**	**7.9700e-003**	**3.0000e-005**	**1.7900e-003**	**3.0000e-005**	**1.8300e-003**	**4.9000e-004**	**3.0000e-005**	**5.2000e-004**	**0.0000**	**2.4721**	**2.4721**	**6.0000e-005**	**2.4000e-004**	**2.5455**

3.5 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	0.1819	1.6633	1.8785	3.1200e-003		0.0809	0.0809		0.0761	0.0761	0.0000	268.0380	268.0380	0.0637	0.0000	269.6314
Total	**0.1819**	**1.6633**	**1.8785**	**3.1200e-003**		**0.0809**	**0.0809**		**0.0761**	**0.0761**	**0.0000**	**268.0380**	**268.0380**	**0.0637**	**0.0000**	**269.6314**

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 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	5.0000e-005	3.6300e-003	4.9000e-004	1.0000e-005	3.0000e-004	3.0000e-005	3.3000e-004	8.0000e-005	2.0000e-005	1.1000e-004	0.0000	1.1279	1.1279	0.0000	1.8000e-004	1.1808
Vendor	6.1100e-003	0.1902	0.0478	6.6000e-004	0.0197	1.1200e-003	0.0208	5.7000e-003	1.0700e-003	6.7700e-003	0.0000	63.2926	63.2926	2.6000e-004	9.2400e-003	66.0515
Worker	0.0502	0.0317	0.3107	5.7000e-004	0.0615	4.6000e-004	0.0619	0.0164	4.2000e-004	0.0168	0.0000	52.5754	52.5754	2.7000e-003	2.2300e-003	53.3077
Total	**0.0564**	**0.2255**	**0.3590**	**1.2400e-003**	**0.0815**	**1.6100e-003**	**0.0831**	**0.0221**	**1.5100e-003**	**0.0237**	**0.0000**	**116.9959**	**116.9959**	**2.9600e-003**	**0.0117**	**120.5399**

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	0.1819	1.6633	1.8785	3.1200e-003		0.0809	0.0809		0.0761	0.0761	0.0000	268.0377	268.0377	0.0637	0.0000	269.6311
Total	**0.1819**	**1.6633**	**1.8785**	**3.1200e-003**		**0.0809**	**0.0809**		**0.0761**	**0.0761**	**0.0000**	**268.0377**	**268.0377**	**0.0637**	**0.0000**	**269.6311**

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 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	5.0000e-005	3.6300e-003	4.9000e-004	1.0000e-005	3.0000e-004	3.0000e-005	3.3000e-004	8.0000e-005	2.0000e-005	1.1000e-004	0.0000	1.1279	1.1279	0.0000	1.8000e-004	1.1808
Vendor	6.1100e-003	0.1902	0.0478	6.6000e-004	0.0197	1.1200e-003	0.0208	5.7000e-003	1.0700e-003	6.7700e-003	0.0000	63.2926	63.2926	2.6000e-004	9.2400e-003	66.0515
Worker	0.0502	0.0317	0.3107	5.7000e-004	0.0615	4.6000e-004	0.0619	0.0164	4.2000e-004	0.0168	0.0000	52.5754	52.5754	2.7000e-003	2.2300e-003	53.3077
Total	**0.0564**	**0.2255**	**0.3590**	**1.2400e-003**	**0.0815**	**1.6100e-003**	**0.0831**	**0.0221**	**1.5100e-003**	**0.0237**	**0.0000**	**116.9959**	**116.9959**	**2.9600e-003**	**0.0117**	**120.5399**

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	1.2310					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7200e-003	0.0117	0.0163	3.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	2.2979	2.2979	1.4000e-004	0.0000	2.3014
Total	**1.2327**	**0.0117**	**0.0163**	**3.0000e-005**		**6.4000e-004**	**6.4000e-004**		**6.4000e-004**	**6.4000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.4000e-004**	**0.0000**	**2.3014**

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0627	0.0627	0.0000	1.0000e-005	0.0656
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	1.2200e-003	7.7000e-004	7.5400e-003	1.0000e-005	1.4900e-003	1.0000e-005	1.5000e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.2754	1.2754	7.0000e-005	5.0000e-005	1.2932
Total	**1.2200e-003**	**9.7000e-004**	**7.5700e-003**	**1.0000e-005**	**1.5100e-003**	**1.0000e-005**	**1.5200e-003**	**4.0000e-004**	**1.0000e-005**	**4.2000e-004**	**0.0000**	**1.3381**	**1.3381**	**7.0000e-005**	**6.0000e-005**	**1.3588**

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	1.2310					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7200e-003	0.0117	0.0163	3.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	2.2979	2.2979	1.4000e-004	0.0000	2.3014
Total	**1.2327**	**0.0117**	**0.0163**	**3.0000e-005**		**6.4000e-004**	**6.4000e-004**		**6.4000e-004**	**6.4000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.4000e-004**	**0.0000**	**2.3014**

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0627	0.0627	0.0000	1.0000e-005	0.0656
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	1.2200e-003	7.7000e-004	7.5400e-003	1.0000e-005	1.4900e-003	1.0000e-005	1.5000e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.2754	1.2754	7.0000e-005	5.0000e-005	1.2932
Total	**1.2200e-003**	**9.7000e-004**	**7.5700e-003**	**1.0000e-005**	**1.5100e-003**	**1.0000e-005**	**1.5200e-003**	**4.0000e-004**	**1.0000e-005**	**4.2000e-004**	**0.0000**	**1.3381**	**1.3381**	**7.0000e-005**	**6.0000e-005**	**1.3588**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

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	tons/yr										MT/yr					
Mitigated	0.4578	0.5460	3.2134	4.4300e-003	0.3929	5.5700e-003	0.3985	0.1053	5.2400e-003	0.1105	0.0000	407.9556	407.9556	0.0409	0.0270	417.0263
Unmitigated	0.4578	0.5460	3.2134	4.4300e-003	0.3929	5.5700e-003	0.3985	0.1053	5.2400e-003	0.1105	0.0000	407.9556	407.9556	0.0409	0.0270	417.0263

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	585.20	573.30	416.50	1,062,821	1,062,821
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Total	585.20	573.30	416.50	1,062,821	1,062,821

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
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	9.50	7.30	7.30	33.00	48.00	19.00	52	39	9

4.4 Fleet Mix

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.456449	0.066493	0.191214	0.159357	0.054432	0.010008	0.008352	0.006045	0.000425	0.000000	0.038112	0.001232	0.007880
Other Asphalt Surfaces	0.456449	0.066493	0.191214	0.159357	0.054432	0.010008	0.008352	0.006045	0.000425	0.000000	0.038112	0.001232	0.007880
Parking Lot	0.456449	0.066493	0.191214	0.159357	0.054432	0.010008	0.008352	0.006045	0.000425	0.000000	0.038112	0.001232	0.007880
Recreational Swimming Pool	0.456449	0.066493	0.191214	0.159357	0.054432	0.010008	0.008352	0.006045	0.000425	0.000000	0.038112	0.001232	0.007880

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	72.4963	72.4963	0.0117	1.4200e-003	73.2132
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	72.4963	72.4963	0.0117	1.4200e-003	73.2132
NaturalGas Mitigated	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.5153	111.5153	2.1400e-003	2.0400e-003	112.1780
NaturalGas Unmitigated	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.5153	111.5153	2.1400e-003	2.0400e-003	112.1780

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
Hotel	2.08972e+006	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.5153	111.5153	2.1400e-003	2.0400e-003	112.1780
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	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
Total		**0.0113**	**0.1024**	**0.0861**	**6.1000e-004**		**7.7900e-003**	**7.7900e-003**		**7.7900e-003**	**7.7900e-003**	**0.0000**	**111.5153**	**111.5153**	**2.1400e-003**	**2.0400e-003**	**112.1780**

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
Hotel	2.08972e+006	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.5153	111.5153	2.1400e-003	2.0400e-003	112.1780
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	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
Total		**0.0113**	**0.1024**	**0.0861**	**6.1000e-004**		**7.7900e-003**	**7.7900e-003**		**7.7900e-003**	**7.7900e-003**	**0.0000**	**111.5153**	**111.5153**	**2.1400e-003**	**2.0400e-003**	**112.1780**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	736890	68.1798	0.0110	1.3400e-003	68.8540
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	46652.8	4.3165	7.0000e-004	8.0000e-005	4.3592
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Total		**72.4963**	**0.0117**	**1.4200e-003**	**73.2132**

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	736890	68.1798	0.0110	1.3400e-003	68.8540
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	46652.8	4.3165	7.0000e-004	8.0000e-005	4.3592
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Total		**72.4963**	**0.0117**	**1.4200e-003**	**73.2132**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

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	tons/yr										MT/yr					
Mitigated	0.4336	1.0000e-005	6.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3100e-003	1.3100e-003	0.0000	0.0000	1.4000e-003
Unmitigated	0.4336	1.0000e-005	6.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3300e-003	1.3300e-003	0.0000	0.0000	1.4200e-003

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	0.1231					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3105					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3300e-003	1.3300e-003	0.0000	0.0000	1.4200e-003
Total	**0.4336**	**1.0000e-005**	**6.8000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.3300e-003**	**1.3300e-003**	**0.0000**	**0.0000**	**1.4200e-003**

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.1231					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3105					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3100e-003	1.3100e-003	0.0000	0.0000	1.4000e-003
Total	**0.4336**	**1.0000e-005**	**6.8000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.3100e-003**	**1.3100e-003**	**0.0000**	**0.0000**	**1.4000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.2611	0.0480	1.1400e-003	2.8012
Unmitigated	1.5763	0.0600	1.4300e-003	3.5015

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	1.77567 / 0.197297	1.5162	0.0580	1.3800e-003	3.3793
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.0591431 / 0.036249	0.0601	1.9300e-003	5.0000e-005	0.1223
Total		**1.5763**	**0.0599**	**1.4300e-003**	**3.5015**

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	1.42054 / 0.157838	1.2130	0.0464	1.1100e-003	2.7034
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.0473145 / 0.0289992	0.0481	1.5500e-003	4.0000e-005	0.0978
Total		**1.2611**	**0.0480**	**1.1500e-003**	**2.8012**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.9357	0.5281	0.0000	22.1377
Unmitigated	8.9357	0.5281	0.0000	22.1377

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	38.32	7.7786	0.4597	0.0000	19.2712
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	5.7	1.1571	0.0684	0.0000	2.8665
Total		**8.9357**	**0.5281**	**0.0000**	**22.1377**

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	38.32	7.7786	0.4597	0.0000	19.2712
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	5.7	1.1571	0.0684	0.0000	2.8665
Total		**8.9357**	**0.5281**	**0.0000**	**22.1377**

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

Phase 2 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Phase 3 Construction and Operations (Unmitigated)

Lake County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.85	Acre	0.85	37,026.00	0
Parking Lot	6.54	Acre	6.54	284,882.40	0
Regional Shopping Center	46.63	1000sqft	1.07	46,630.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	67
Climate Zone	1			**Operational Year**	2024
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Phase 3
Development of 46,630 sq ft commercial shopping/retail space

Land Use - Phase 3 - Development of 46,630 sq ft commercial shopping/retail space
Land Uses to represent Phase 3 development based on information provided in the project description and TIA.
Estimate of acreage for remaining parcels based on site plan.

Construction Phase - Phase 3 Construction Start Date: October 3, 2023 (assumed to begin immediately following the completion of Phase 2 construction)
CalEEMod default duration
No demolition

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT - Additional truck trips were added to each phase for mobilization/demobilization of on-site equipment (two trips per piece of equipment). Additional vendor trips added to the paving phase to account for delivery of materials.

Grading - Cut/fill anticipated to be balanced on site (applicant-provided information)

Architectural Coating -

Vehicle Trips - ITE Manual 10th Ed trip generation rates, consistent with trip generation rates presented in the Lakeport Shopping Center Traffic Impact Analysis dated April 26, 2021.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Consumer Products - Updated based on 2017 ARB VOC inventory data and 2017 population estimates based on the State of California's Department of Finance demographic projections were used to estimate a statewide VOC EF for 2017.

Area Coating -

Area Mitigation - Building code standards (exterior outlets)

Energy Mitigation -

Water Mitigation - Compliance with the Green Building Code Standards and the Water Efficient Land Use Ordinance

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConsumerProducts	ROG_EF	2.14E-05	1.62E-05
tblTripsAndVMT	HaulingTripNumber	0.00	14.00
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	18.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00

2.0 Emissions Summary

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0717	0.5584	0.5635	1.1200e-003	0.1838	0.0244	0.2082	0.0887	0.0225	0.1113	0.0000	99.6429	99.6429	0.0247	2.0100e-003	100.8611
2024	0.9239	1.9234	2.4549	5.5300e-003	0.1727	0.0701	0.2427	0.0469	0.0660	0.1129	0.0000	495.9741	495.9741	0.0650	0.0240	504.7531
Maximum	**0.9239**	**1.9234**	**2.4549**	**5.5300e-003**	**0.1838**	**0.0701**	**0.2427**	**0.0887**	**0.0660**	**0.1129**	**0.0000**	**495.9741**	**495.9741**	**0.0650**	**0.0240**	**504.7531**

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	0.0717	0.5584	0.5635	1.1200e-003	0.1838	0.0244	0.2082	0.0887	0.0225	0.1113	0.0000	99.6428	99.6428	0.0247	2.0100e-003	100.8610
2024	0.9239	1.9234	2.4549	5.5300e-003	0.1727	0.0701	0.2427	0.0469	0.0660	0.1129	0.0000	495.9738	495.9738	0.0650	0.0240	504.7528
Maximum	**0.9239**	**1.9234**	**2.4549**	**5.5300e-003**	**0.1838**	**0.0701**	**0.2427**	**0.0887**	**0.0660**	**0.1129**	**0.0000**	**495.9738**	**495.9738**	**0.0650**	**0.0240**	**504.7528**

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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**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**10-3-2023**	**1-2-2024**	0.6492	0.6492
2	**1-3-2024**	**4-2-2024**	0.6596	0.6596
3	**4-3-2024**	**7-2-2024**	0.6513	0.6513
4	**7-3-2024**	**9-30-2024**	0.6442	0.6442
		Highest	0.6596	0.6596

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	0.2239	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.7000e-004	9.7000e-004	0.0000	0.0000	1.0300e-003
Energy	1.8000e-003	0.0163	0.0137	1.0000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	82.9930	82.9930	0.0109	1.6000e-003	83.7435
Mobile	1.2824	1.4316	8.5612	0.0121	1.1047	0.0147	1.1194	0.2960	0.0138	0.3098	0.0000	1,114.3262	1,114.3262	0.1120	0.0732	1,138.9306
Waste						0.0000	0.0000		0.0000	0.0000	9.9384	0.0000	9.9384	0.5873	0.0000	24.6221
Water						0.0000	0.0000		0.0000	0.0000	1.0958	2.4148	3.5106	0.1129	2.7000e-003	7.1401
Total	**1.5081**	**1.4479**	**8.5754**	**0.0122**	**1.1047**	**0.0159**	**1.1206**	**0.2960**	**0.0150**	**0.3110**	**11.0342**	**1,199.7350**	**1,210.7692**	**0.8232**	**0.0775**	**1,254.4373**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.2239	0.0000	4.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.5000e-004	9.5000e-004	0.0000	0.0000	1.0100e-003
Energy	1.8000e-003	0.0163	0.0137	1.0000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	82.9930	82.9930	0.0109	1.6000e-003	83.7435
Mobile	1.2824	1.4316	8.5612	0.0121	1.1047	0.0147	1.1194	0.2960	0.0138	0.3098	0.0000	1,114.3262	1,114.3262	0.1120	0.0732	1,138.9306
Waste						0.0000	0.0000		0.0000	0.0000	9.9384	0.0000	9.9384	0.5873	0.0000	24.6221
Water						0.0000	0.0000		0.0000	0.0000	0.8766	1.9318	2.8085	0.0904	2.1600e-003	5.7121
Total	**1.5081**	**1.4479**	**8.5754**	**0.0122**	**1.1047**	**0.0159**	**1.1206**	**0.2960**	**0.0150**	**0.3110**	**10.8151**	**1,199.2520**	**1,210.0671**	**0.8006**	**0.0769**	**1,253.0093**

	ROG	NOx	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**	**1.99**	**0.04**	**0.06**	**2.74**	**0.70**	**0.11**

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	10/3/2023	10/16/2023	5	10	
2	Grading	Grading	10/17/2023	11/13/2023	5	20	
3	Paving	Paving	11/14/2023	12/11/2023	5	20	

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Building Construction	Building Construction	12/12/2023	10/28/2024	5	230	
5	Architectural Coating	Architectural Coating	10/29/2024	11/25/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 20

Acres of Paving: 7.39

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 69,945; Non-Residential Outdoor: 23,315; Striped Parking Area: 19,315 (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	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
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
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
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	12.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	4.00	12.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	150.00	60.00	18.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	30.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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**

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.4100e-003	1.9000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.4386	0.4386	0.0000	7.0000e-005	0.4592
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	3.7000e-004	3.5900e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6073	0.6073	3.0000e-005	3.0000e-005	0.6158
Total	**6.0000e-004**	**1.7800e-003**	**3.7800e-003**	**1.0000e-005**	**8.3000e-004**	**2.0000e-005**	**8.5000e-004**	**2.2000e-004**	**1.0000e-005**	**2.3000e-004**	**0.0000**	**1.0460**	**1.0460**	**3.0000e-005**	**1.0000e-004**	**1.0750**

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	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7253	16.7253	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**	**16.7253**	**16.7253**	**5.4100e-003**	**0.0000**	**16.8606**

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.4100e-003	1.9000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.4386	0.4386	0.0000	7.0000e-005	0.4592
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	3.7000e-004	3.5900e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6073	0.6073	3.0000e-005	3.0000e-005	0.6158
Total	**6.0000e-004**	**1.7800e-003**	**3.7800e-003**	**1.0000e-005**	**8.3000e-004**	**2.0000e-005**	**8.5000e-004**	**2.2000e-004**	**1.0000e-005**	**2.3000e-004**	**0.0000**	**1.0460**	**1.0460**	**3.0000e-005**	**1.0000e-004**	**1.0750**

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					0.0708	0.0000	0.0708	0.0343	0.0000	0.0343	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1794	0.1475	3.0000e-004		7.7500e-003	7.7500e-003		7.1300e-003	7.1300e-003	0.0000	26.0606	26.0606	8.4300e-003	0.0000	26.2713
Total	**0.0171**	**0.1794**	**0.1475**	**3.0000e-004**	**0.0708**	**7.7500e-003**	**0.0786**	**0.0343**	**7.1300e-003**	**0.0414**	**0.0000**	**26.0606**	**26.0606**	**8.4300e-003**	**0.0000**	**26.2713**

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.2100e-003	1.6000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3760	0.3760	0.0000	6.0000e-005	0.3936
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	9.7000e-004	6.1000e-004	5.9800e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0122	1.0122	5.0000e-005	4.0000e-005	1.0263
Total	**9.9000e-004**	**1.8200e-003**	**6.1400e-003**	**1.0000e-005**	**1.2800e-003**	**2.0000e-005**	**1.3000e-003**	**3.4000e-004**	**2.0000e-005**	**3.6000e-004**	**0.0000**	**1.3882**	**1.3882**	**5.0000e-005**	**1.0000e-004**	**1.4199**

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					0.0708	0.0000	0.0708	0.0343	0.0000	0.0343	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1794	0.1475	3.0000e-004		7.7500e-003	7.7500e-003		7.1300e-003	7.1300e-003	0.0000	26.0606	26.0606	8.4300e-003	0.0000	26.2713
Total	**0.0171**	**0.1794**	**0.1475**	**3.0000e-004**	**0.0708**	**7.7500e-003**	**0.0786**	**0.0343**	**7.1300e-003**	**0.0414**	**0.0000**	**26.0606**	**26.0606**	**8.4300e-003**	**0.0000**	**26.2713**

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.2100e-003	1.6000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3760	0.3760	0.0000	6.0000e-005	0.3936
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	9.7000e-004	6.1000e-004	5.9800e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0122	1.0122	5.0000e-005	4.0000e-005	1.0263
Total	**9.9000e-004**	**1.8200e-003**	**6.1400e-003**	**1.0000e-005**	**1.2800e-003**	**2.0000e-005**	**1.3000e-003**	**3.4000e-004**	**2.0000e-005**	**3.6000e-004**	**0.0000**	**1.3882**	**1.3882**	**5.0000e-005**	**1.0000e-004**	**1.4199**

3.4 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	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0269	20.0269	6.4800e-003	0.0000	20.1888
Paving	9.6800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0200**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**	**0.0000**	**20.0269**	**20.0269**	**6.4800e-003**	**0.0000**	**20.1888**

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 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	2.0000e-005	1.2100e-003	1.6000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3760	0.3760	0.0000	6.0000e-005	0.3936
Vendor	8.0000e-005	2.5200e-003	6.3000e-004	1.0000e-005	2.6000e-004	1.0000e-005	2.8000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.8401	0.8401	0.0000	1.2000e-004	0.8767
Worker	9.7000e-004	6.1000e-004	5.9800e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0122	1.0122	5.0000e-005	4.0000e-005	1.0263
Total	**1.0700e-003**	**4.3400e-003**	**6.7700e-003**	**2.0000e-005**	**1.5400e-003**	**3.0000e-005**	**1.5800e-003**	**4.2000e-004**	**3.0000e-005**	**4.5000e-004**	**0.0000**	**2.2283**	**2.2283**	**5.0000e-005**	**2.2000e-004**	**2.2967**

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	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0268	20.0268	6.4800e-003	0.0000	20.1888
Paving	9.6800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0200**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**	**0.0000**	**20.0268**	**20.0268**	**6.4800e-003**	**0.0000**	**20.1888**

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 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	2.0000e-005	1.2100e-003	1.6000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3760	0.3760	0.0000	6.0000e-005	0.3936
Vendor	8.0000e-005	2.5200e-003	6.3000e-004	1.0000e-005	2.6000e-004	1.0000e-005	2.8000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.8401	0.8401	0.0000	1.2000e-004	0.8767
Worker	9.7000e-004	6.1000e-004	5.9800e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0122	1.0122	5.0000e-005	4.0000e-005	1.0263
Total	**1.0700e-003**	**4.3400e-003**	**6.7700e-003**	**2.0000e-005**	**1.5400e-003**	**3.0000e-005**	**1.5800e-003**	**4.2000e-004**	**3.0000e-005**	**4.5000e-004**	**0.0000**	**2.2283**	**2.2283**	**5.0000e-005**	**2.2000e-004**	**2.2967**

3.5 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	0.0110	0.1007	0.1137	1.9000e-004		4.9000e-003	4.9000e-003		4.6100e-003	4.6100e-003	0.0000	16.2263	16.2263	3.8600e-003	0.0000	16.3228
Total	**0.0110**	**0.1007**	**0.1137**	**1.9000e-004**		**4.9000e-003**	**4.9000e-003**		**4.6100e-003**	**4.6100e-003**	**0.0000**	**16.2263**	**16.2263**	**3.8600e-003**	**0.0000**	**16.3228**

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 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	1.1000e-004	2.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0343	0.0343	0.0000	1.0000e-005	0.0359
Vendor	8.5000e-004	0.0265	6.6700e-003	9.0000e-005	2.7500e-003	1.6000e-004	2.9000e-003	7.9000e-004	1.5000e-004	9.4000e-004	0.0000	8.8213	8.8213	4.0000e-005	1.2900e-003	9.2058
Worker	6.7700e-003	4.2800e-003	0.0419	8.0000e-005	8.2800e-003	6.0000e-005	8.3400e-003	2.2000e-003	6.0000e-005	2.2600e-003	0.0000	7.0856	7.0856	3.6000e-004	3.0000e-004	7.1843
Total	**7.6200e-003**	**0.0309**	**0.0486**	**1.7000e-004**	**0.0110**	**2.2000e-004**	**0.0113**	**2.9900e-003**	**2.1000e-004**	**3.2000e-003**	**0.0000**	**15.9412**	**15.9412**	**4.0000e-004**	**1.6000e-003**	**16.4260**

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	0.0110	0.1007	0.1137	1.9000e-004		4.9000e-003	4.9000e-003		4.6100e-003	4.6100e-003	0.0000	16.2263	16.2263	3.8600e-003	0.0000	16.3228
Total	**0.0110**	**0.1007**	**0.1137**	**1.9000e-004**		**4.9000e-003**	**4.9000e-003**		**4.6100e-003**	**4.6100e-003**	**0.0000**	**16.2263**	**16.2263**	**3.8600e-003**	**0.0000**	**16.3228**

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 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	1.1000e-004	2.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0343	0.0343	0.0000	1.0000e-005	0.0359
Vendor	8.5000e-004	0.0265	6.6700e-003	9.0000e-005	2.7500e-003	1.6000e-004	2.9000e-003	7.9000e-004	1.5000e-004	9.4000e-004	0.0000	8.8213	8.8213	4.0000e-005	1.2900e-003	9.2058
Worker	6.7700e-003	4.2800e-003	0.0419	8.0000e-005	8.2800e-003	6.0000e-005	8.3400e-003	2.2000e-003	6.0000e-005	2.2600e-003	0.0000	7.0856	7.0856	3.6000e-004	3.0000e-004	7.1843
Total	**7.6200e-003**	**0.0309**	**0.0486**	**1.7000e-004**	**0.0110**	**2.2000e-004**	**0.0113**	**2.9900e-003**	**2.1000e-004**	**3.2000e-003**	**0.0000**	**15.9412**	**15.9412**	**4.0000e-004**	**1.6000e-003**	**16.4260**

3.5 Building Construction - 2024

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	0.1589	1.4519	1.7460	2.9100e-003		0.0662	0.0662		0.0623	0.0623	0.0000	250.3970	250.3970	0.0592	0.0000	251.8773
Total	**0.1589**	**1.4519**	**1.7460**	**2.9100e-003**		**0.0662**	**0.0662**		**0.0623**	**0.0623**	**0.0000**	**250.3970**	**250.3970**	**0.0592**	**0.0000**	**251.8773**

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	1.6500e-003	2.3000e-004	1.0000e-005	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5225	0.5225	0.0000	8.0000e-005	0.5470
Vendor	0.0121	0.3984	0.0972	1.4100e-003	0.0424	2.3100e-003	0.0447	0.0123	2.2000e-003	0.0145	0.0000	134.5367	134.5367	5.2000e-004	0.0196	140.3924
Worker	0.0971	0.0580	0.5826	1.1600e-003	0.1278	8.7000e-004	0.1286	0.0340	8.0000e-004	0.0348	0.0000	105.9409	105.9409	5.0300e-003	4.2300e-003	107.3273
Total	**0.1092**	**0.4581**	**0.6800**	**2.5800e-003**	**0.1703**	**3.1900e-003**	**0.1735**	**0.0463**	**3.0100e-003**	**0.0493**	**0.0000**	**241.0001**	**241.0001**	**5.5500e-003**	**0.0239**	**248.2667**

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	0.1589	1.4519	1.7460	2.9100e-003		0.0662	0.0662		0.0623	0.0623	0.0000	250.3967	250.3967	0.0592	0.0000	251.8770
Total	**0.1589**	**1.4519**	**1.7460**	**2.9100e-003**		**0.0662**	**0.0662**		**0.0623**	**0.0623**	**0.0000**	**250.3967**	**250.3967**	**0.0592**	**0.0000**	**251.8770**

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	1.6500e-003	2.3000e-004	1.0000e-005	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5225	0.5225	0.0000	8.0000e-005	0.5470
Vendor	0.0121	0.3984	0.0972	1.4100e-003	0.0424	2.3100e-003	0.0447	0.0123	2.2000e-003	0.0145	0.0000	134.5367	134.5367	5.2000e-004	0.0196	140.3924
Worker	0.0971	0.0580	0.5826	1.1600e-003	0.1278	8.7000e-004	0.1286	0.0340	8.0000e-004	0.0348	0.0000	105.9409	105.9409	5.0300e-003	4.2300e-003	107.3273
Total	**0.1092**	**0.4581**	**0.6800**	**2.5800e-003**	**0.1703**	**3.1900e-003**	**0.1735**	**0.0463**	**3.0100e-003**	**0.0493**	**0.0000**	**241.0001**	**241.0001**	**5.5500e-003**	**0.0239**	**248.2667**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6522					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	**0.6540**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5569**

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2024

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	1.9000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0618	0.0618	0.0000	1.0000e-005	0.0647
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	1.8000e-003	1.0700e-003	0.0108	2.0000e-005	2.3700e-003	2.0000e-005	2.3800e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.9619	1.9619	9.0000e-005	8.0000e-005	1.9875
Total	**1.8000e-003**	**1.2600e-003**	**0.0108**	**2.0000e-005**	**2.3900e-003**	**2.0000e-005**	**2.4000e-003**	**6.3000e-004**	**1.0000e-005**	**6.5000e-004**	**0.0000**	**2.0237**	**2.0237**	**9.0000e-005**	**9.0000e-005**	**2.0523**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6522					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	**0.6540**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5568**

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2024

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	1.9000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0618	0.0618	0.0000	1.0000e-005	0.0647
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	1.8000e-003	1.0700e-003	0.0108	2.0000e-005	2.3700e-003	2.0000e-005	2.3800e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.9619	1.9619	9.0000e-005	8.0000e-005	1.9875
Total	**1.8000e-003**	**1.2600e-003**	**0.0108**	**2.0000e-005**	**2.3900e-003**	**2.0000e-005**	**2.4000e-003**	**6.3000e-004**	**1.0000e-005**	**6.5000e-004**	**0.0000**	**2.0237**	**2.0237**	**9.0000e-005**	**9.0000e-005**	**2.0523**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

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	tons/yr										MT/yr					
Mitigated	1.2824	1.4316	8.5612	0.0121	1.1047	0.0147	1.1194	0.2960	0.0138	0.3098	0.0000	1,114.3262	1,114.3262	0.1120	0.0732	1,138.9306
Unmitigated	1.2824	1.4316	8.5612	0.0121	1.1047	0.0147	1.1194	0.2960	0.0138	0.3098	0.0000	1,114.3262	1,114.3262	0.1120	0.0732	1,138.9306

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		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	1,760.28	2,150.58	983.89	2,989,605	2,989,605
Total	1,760.28	2,150.58	983.89	2,989,605	2,989,605

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
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.464659	0.064863	0.191817	0.155973	0.051760	0.009603	0.008536	0.006240	0.000416	0.000000	0.037661	0.001217	0.007255
Parking Lot	0.464659	0.064863	0.191817	0.155973	0.051760	0.009603	0.008536	0.006240	0.000416	0.000000	0.037661	0.001217	0.007255

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Regional Shopping Center	0.464659	0.064863	0.191817	0.155973	0.051760	0.009603	0.008536	0.006240	0.000416	0.000000	0.037661	0.001217	0.007255

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	65.2261	65.2261	0.0106	1.2800e-003	65.8711
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	65.2261	65.2261	0.0106	1.2800e-003	65.8711
NaturalGas Mitigated	1.8000e-003	0.0163	0.0137	1.0000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	17.7669	17.7669	3.4000e-004	3.3000e-004	17.8724
NaturalGas Unmitigated	1.8000e-003	0.0163	0.0137	1.0000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	17.7669	17.7669	3.4000e-004	3.3000e-004	17.8724

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	332938	1.8000e-003	0.0163	0.0137	1.0000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	17.7669	17.7669	3.4000e-004	3.3000e-004	17.8724
Total		**1.8000e-003**	**0.0163**	**0.0137**	**1.0000e-004**		**1.2400e-003**	**1.2400e-003**		**1.2400e-003**	**1.2400e-003**	**0.0000**	**17.7669**	**17.7669**	**3.4000e-004**	**3.3000e-004**	**17.8724**

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	332938	1.8000e-003	0.0163	0.0137	1.0000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	17.7669	17.7669	3.4000e-004	3.3000e-004	17.8724
Total		**1.8000e-003**	**0.0163**	**0.0137**	**1.0000e-004**		**1.2400e-003**	**1.2400e-003**		**1.2400e-003**	**1.2400e-003**	**0.0000**	**17.7669**	**17.7669**	**3.4000e-004**	**3.3000e-004**	**17.8724**

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Parking Lot	99708.8	9.2254	1.4900e-003	1.8000e-004	9.3167
Regional Shopping Center	605257	56.0007	9.0600e-003	1.1000e-003	56.5544
Total		**65.2261**	**0.0106**	**1.2800e-003**	**65.8711**

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

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
Parking Lot	99708.8	9.2254	1.4900e-003	1.8000e-004	9.3167
Regional Shopping Center	605257	56.0007	9.0600e-003	1.1000e-003	56.5544
Total		**65.2261**	**0.0106**	**1.2800e-003**	**65.8711**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

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	tons/yr										MT/yr					
Mitigated	0.2239	0.0000	4.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.5000e-004	9.5000e-004	0.0000	0.0000	1.0100e-003
Unmitigated	0.2239	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.7000e-004	9.7000e-004	0.0000	0.0000	1.0300e-003

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	0.0652					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1587					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.7000e-004	9.7000e-004	0.0000	0.0000	1.0300e-003
Total	**0.2239**	**0.0000**	**5.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**9.7000e-004**	**9.7000e-004**	**0.0000**	**0.0000**	**1.0300e-003**

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0652					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1587					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.5000e-004	9.5000e-004	0.0000	0.0000	1.0100e-003
Total	**0.2239**	**0.0000**	**4.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**9.5000e-004**	**9.5000e-004**	**0.0000**	**0.0000**	**1.0100e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.8085	0.0904	2.1600e-003	5.7121
Unmitigated	3.5106	0.1129	2.7000e-003	7.1401

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
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	3.454 / 2.11697	3.5106	0.1129	2.7000e-003	7.1401
Total		**3.5106**	**0.1129**	**2.7000e-003**	**7.1401**

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	2.7632 / 1.69358	2.8085	0.0904	2.1600e-003	5.7121
Total		**2.8085**	**0.0904**	**2.1600e-003**	**5.7121**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	9.9384	0.5873	0.0000	24.6221
Unmitigated	9.9384	0.5873	0.0000	24.6221

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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	48.96	9.9384	0.5873	0.0000	24.6221
Total		**9.9384**	**0.5873**	**0.0000**	**24.6221**

Phase 3 Construction and Operations (Unmitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	48.96	9.9384	0.5873	0.0000	24.6221
Total		**9.9384**	**0.5873**	**0.0000**	**24.6221**

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

11.0 Vegetation

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Phase 1 Construction (Mitigated)

Lake County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.32	Acre	0.32	14,026.32	0
Parking Lot	2.61	Acre	2.61	113,691.60	0
Fast Food Restaurant with Drive Thru	1.85	1000sqft	0.04	1,850.00	0
High Turnover (Sit Down Restaurant)	3.20	1000sqft	0.07	3,200.00	0
Convenience Market with Gas Pumps	6.16	1000sqft	0.14	6,157.00	0
Regional Shopping Center	1.85	1000sqft	0.04	1,850.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	67
Climate Zone	1			**Operational Year**	2022
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Phase 1 project construction with mitigation incorporated
Construction start date and buildout year based on information provided in the Project Description.

Land Use - Phase 1 - Parcels A & B
Land Uses to represent Phase 1 development based on information provided in the project description, TIA, and site plan.

Construction Phase - Phase 1 Construction Start Date: May 1, 2022
Construction Duration: 6 months
No demolition

Off-road Equipment - Adjusted construction equipment usage to match CalEEMod default total building construction HP hours.

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT - Additional truck trips were added to each phase for mobilization/demobilization of on-site equipment (two trips per piece of equipment). Additional vendor trips added to the paving phase to account for delivery of materials.

Grading - Cut/fill anticipated to be balanced on site (applicant-provided information)

Vehicle Trips - Construction only run

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Consumer Products - Construction only run

Construction Off-road Equipment Mitigation - Tier 4 equipment for off-road equipment >50 HP

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
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	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	230.00	83.00
tblConsumerProducts	ROG_EF	2.14E-05	1.62E-05
tblLandUse	LandUseSquareFeet	13,939.20	14,026.32
tblLandUse	LandUseSquareFeet	6,160.00	6,157.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	9.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	UsageHours	7.00	6.50
tblOffRoadEquipment	UsageHours	8.00	7.40
tblOffRoadEquipment	UsageHours	8.00	7.40
tblOffRoadEquipment	UsageHours	7.00	9.70
tblOffRoadEquipment	UsageHours	8.00	7.40
tblTripsAndVMT	HaulingTripNumber	0.00	14.00
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	16.00
tblTripsAndVMT	HaulingTripNumber	0.00	48.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	624.20	0.00
tblVehicleTrips	ST_TR	616.12	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	ST_TR	122.40	0.00
tblVehicleTrips	ST_TR	46.12	0.00
tblVehicleTrips	SU_TR	624.20	0.00
tblVehicleTrips	SU_TR	472.58	0.00
tblVehicleTrips	SU_TR	142.64	0.00
tblVehicleTrips	SU_TR	21.10	0.00
tblVehicleTrips	WD_TR	624.20	0.00
tblVehicleTrips	WD_TR	470.95	0.00
tblVehicleTrips	WD_TR	112.18	0.00
tblVehicleTrips	WD_TR	37.75	0.00

2.0 Emissions Summary

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2022	0.4456	2.1636	2.2659	3.9800e-003	0.1068	0.1071	0.2139	0.0469	0.1006	0.1475	0.0000	346.6833	346.6833	0.0761	4.4900e-003	349.9234
Maximum	**0.4456**	**2.1636**	**2.2659**	**3.9800e-003**	**0.1068**	**0.1071**	**0.2139**	**0.0469**	**0.1006**	**0.1475**	**0.0000**	**346.6833**	**346.6833**	**0.0761**	**4.4900e-003**	**349.9234**

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					
2022	0.2929	0.4361	2.4446	3.9800e-003	0.0642	0.0136	0.0778	0.0255	0.0135	0.0390	0.0000	346.6829	346.6829	0.0761	4.4900e-003	349.9230
Maximum	**0.2929**	**0.4361**	**2.4446**	**3.9800e-003**	**0.0642**	**0.0136**	**0.0778**	**0.0255**	**0.0135**	**0.0390**	**0.0000**	**346.6829**	**346.6829**	**0.0761**	**4.4900e-003**	**349.9230**

	ROG	NOx	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	**34.27**	**79.85**	**-7.89**	**0.00**	**39.89**	**87.32**	**63.65**	**45.67**	**86.55**	**73.55**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	5-1-2022	7-31-2022	1.1568	0.2447
2	8-1-2022	9-30-2022	1.1040	0.2531
		Highest	1.1568	0.2531

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	0.0664	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.9000e-004	2.9000e-004	0.0000	0.0000	3.0000e-004
Energy	3.4700e-003	0.0315	0.0265	1.9000e-004		2.3900e-003	2.3900e-003		2.3900e-003	2.3900e-003	0.0000	58.8695	58.8695	4.6300e-003	1.1100e-003	59.3164
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	16.2068	0.0000	16.2068	0.9578	0.0000	40.1517
Water						0.0000	0.0000		0.0000	0.0000	0.6745	1.2139	1.8884	0.0695	1.6600e-003	4.1200
Total	**0.0699**	**0.0315**	**0.0266**	**1.9000e-004**	**0.0000**	**2.3900e-003**	**2.3900e-003**	**0.0000**	**2.3900e-003**	**2.3900e-003**	**16.8813**	**60.0837**	**76.9651**	**1.0319**	**2.7700e-003**	**103.5883**

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.0664	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.9000e-004	2.9000e-004	0.0000	0.0000	3.0000e-004
Energy	3.4700e-003	0.0315	0.0265	1.9000e-004		2.3900e-003	2.3900e-003		2.3900e-003	2.3900e-003	0.0000	58.8695	58.8695	4.6300e-003	1.1100e-003	59.3164
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	16.2068	0.0000	16.2068	0.9578	0.0000	40.1517
Water						0.0000	0.0000		0.0000	0.0000	0.6745	1.2139	1.8884	0.0695	1.6600e-003	4.1200
Total	**0.0699**	**0.0315**	**0.0266**	**1.9000e-004**	**0.0000**	**2.3900e-003**	**2.3900e-003**	**0.0000**	**2.3900e-003**	**2.3900e-003**	**16.8813**	**60.0837**	**76.9651**	**1.0319**	**2.7700e-003**	**103.5883**

	ROG	NOx	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	5/1/2022	5/6/2022	5	5	
2	Grading	Grading	5/7/2022	5/18/2022	5	8	
3	Paving	Paving	5/19/2022	6/13/2022	5	18	

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Building Construction	Building Construction	6/14/2022	10/6/2022	5	83	Adjusted to match applicant-provided schedule
5	Architectural Coating	Architectural Coating	10/7/2022	11/1/2022	5	18	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 2.93

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 19,586; Non-Residential Outdoor: 6,529; Striped Parking Area: 7,663 (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	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	3	6.50	231	0.29
Building Construction	Forklifts	9	7.40	89	0.20
Building Construction	Generator Sets	3	7.40	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	9.70	97	0.37
Building Construction	Welders	3	7.40	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	12.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	4.00	16.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	24	58.00	23.00	48.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 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					
Fugitive Dust					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.9300e-003	0.0827	0.0492	1.0000e-004		4.0300e-003	4.0300e-003		3.7100e-003	3.7100e-003	0.0000	8.3599	8.3599	2.7000e-003	0.0000	8.4274
Total	**7.9300e-003**	**0.0827**	**0.0492**	**1.0000e-004**	**0.0491**	**4.0300e-003**	**0.0532**	**0.0253**	**3.7100e-003**	**0.0290**	**0.0000**	**8.3599**	**8.3599**	**2.7000e-003**	**0.0000**	**8.4274**

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 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	4.0000e-005	1.7000e-003	2.3000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4542	0.4542	0.0000	7.0000e-005	0.4755
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	2.1000e-004	2.0000e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3130	0.3130	2.0000e-005	1.0000e-005	0.3176
Total	**3.5000e-004**	**1.9100e-003**	**2.2300e-003**	**0.0000**	**4.7000e-004**	**1.0000e-005**	**4.9000e-004**	**1.2000e-004**	**1.0000e-005**	**1.5000e-004**	**0.0000**	**0.7672**	**0.7672**	**2.0000e-005**	**8.0000e-005**	**0.7932**

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					0.0221	0.0000	0.0221	0.0114	0.0000	0.0114	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1600e-003	5.0400e-003	0.0522	1.0000e-004		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	8.3598	8.3598	2.7000e-003	0.0000	8.4274
Total	**1.1600e-003**	**5.0400e-003**	**0.0522**	**1.0000e-004**	**0.0221**	**1.6000e-004**	**0.0223**	**0.0114**	**1.6000e-004**	**0.0115**	**0.0000**	**8.3598**	**8.3598**	**2.7000e-003**	**0.0000**	**8.4274**

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 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	4.0000e-005	1.7000e-003	2.3000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4542	0.4542	0.0000	7.0000e-005	0.4755
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	2.1000e-004	2.0000e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3130	0.3130	2.0000e-005	1.0000e-005	0.3176
Total	**3.5000e-004**	**1.9100e-003**	**2.2300e-003**	**0.0000**	**4.7000e-004**	**1.0000e-005**	**4.9000e-004**	**1.2000e-004**	**1.0000e-005**	**1.5000e-004**	**0.0000**	**0.7672**	**0.7672**	**2.0000e-005**	**8.0000e-005**	**0.7932**

3.3 Grading - 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					
Fugitive Dust					0.0283	0.0000	0.0283	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7900e-003	0.0834	0.0611	1.2000e-004		3.7600e-003	3.7600e-003		3.4600e-003	3.4600e-003	0.0000	10.4219	10.4219	3.3700e-003	0.0000	10.5062
Total	**7.7900e-003**	**0.0834**	**0.0611**	**1.2000e-004**	**0.0283**	**3.7600e-003**	**0.0321**	**0.0137**	**3.4600e-003**	**0.0172**	**0.0000**	**10.4219**	**10.4219**	**3.3700e-003**	**0.0000**	**10.5062**

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 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	4.0000e-005	1.4500e-003	2.0000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3893	0.3893	0.0000	6.0000e-005	0.4076
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2000e-004	2.8000e-004	2.6700e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4173	0.4173	2.0000e-005	2.0000e-005	0.4235
Total	**4.6000e-004**	**1.7300e-003**	**2.8700e-003**	**0.0000**	**5.7000e-004**	**1.0000e-005**	**5.9000e-004**	**1.6000e-004**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**0.8066**	**0.8066**	**2.0000e-005**	**8.0000e-005**	**0.8311**

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					0.0128	0.0000	0.0128	6.1600e-003	0.0000	6.1600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4500e-003	6.2900e-003	0.0710	1.2000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	10.4219	10.4219	3.3700e-003	0.0000	10.5062
Total	**1.4500e-003**	**6.2900e-003**	**0.0710**	**1.2000e-004**	**0.0128**	**1.9000e-004**	**0.0129**	**6.1600e-003**	**1.9000e-004**	**6.3500e-003**	**0.0000**	**10.4219**	**10.4219**	**3.3700e-003**	**0.0000**	**10.5062**

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 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	4.0000e-005	1.4500e-003	2.0000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3893	0.3893	0.0000	6.0000e-005	0.4076
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2000e-004	2.8000e-004	2.6700e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4173	0.4173	2.0000e-005	2.0000e-005	0.4235
Total	**4.6000e-004**	**1.7300e-003**	**2.8700e-003**	**0.0000**	**5.7000e-004**	**1.0000e-005**	**5.9000e-004**	**1.6000e-004**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**0.8066**	**0.8066**	**2.0000e-005**	**8.0000e-005**	**0.8311**

3.4 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	8.7900e-003	0.0857	0.1098	1.7000e-004		4.3900e-003	4.3900e-003		4.0500e-003	4.0500e-003	0.0000	14.7383	14.7383	4.6300e-003	0.0000	14.8540
Paving	3.8400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0126**	**0.0857**	**0.1098**	**1.7000e-004**		**4.3900e-003**	**4.3900e-003**		**4.0500e-003**	**4.0500e-003**	**0.0000**	**14.7383**	**14.7383**	**4.6300e-003**	**0.0000**	**14.8540**

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 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	5.0000e-005	1.9400e-003	2.6000e-004	1.0000e-005	1.3000e-004	2.0000e-005	1.5000e-004	4.0000e-005	2.0000e-005	5.0000e-005	0.0000	0.5191	0.5191	0.0000	8.0000e-005	0.5435
Vendor	1.2000e-004	2.7500e-003	7.0000e-004	1.0000e-005	2.4000e-004	3.0000e-005	2.6000e-004	7.0000e-005	3.0000e-005	9.0000e-005	0.0000	0.7798	0.7798	1.0000e-005	1.1000e-004	0.8140
Worker	1.2500e-003	8.3000e-004	8.0000e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2519	1.2519	7.0000e-005	6.0000e-005	1.2705
Total	**1.4200e-003**	**5.5200e-003**	**8.9600e-003**	**3.0000e-005**	**1.7900e-003**	**6.0000e-005**	**1.8400e-003**	**4.9000e-004**	**6.0000e-005**	**5.3000e-004**	**0.0000**	**2.5508**	**2.5508**	**8.0000e-005**	**2.5000e-004**	**2.6279**

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	2.7700e-003	0.0135	0.1260	1.7000e-004		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	14.7383	14.7383	4.6300e-003	0.0000	14.8540
Paving	3.8400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.6100e-003**	**0.0135**	**0.1260**	**1.7000e-004**		**4.6000e-004**	**4.6000e-004**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**14.7383**	**14.7383**	**4.6300e-003**	**0.0000**	**14.8540**

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 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	5.0000e-005	1.9400e-003	2.6000e-004	1.0000e-005	1.3000e-004	2.0000e-005	1.5000e-004	4.0000e-005	2.0000e-005	5.0000e-005	0.0000	0.5191	0.5191	0.0000	8.0000e-005	0.5435
Vendor	1.2000e-004	2.7500e-003	7.0000e-004	1.0000e-005	2.4000e-004	3.0000e-005	2.6000e-004	7.0000e-005	3.0000e-005	9.0000e-005	0.0000	0.7798	0.7798	1.0000e-005	1.1000e-004	0.8140
Worker	1.2500e-003	8.3000e-004	8.0000e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2519	1.2519	7.0000e-005	6.0000e-005	1.2705
Total	**1.4200e-003**	**5.5200e-003**	**8.9600e-003**	**3.0000e-005**	**1.7900e-003**	**6.0000e-005**	**1.8400e-003**	**4.9000e-004**	**6.0000e-005**	**5.3000e-004**	**0.0000**	**2.5508**	**2.5508**	**8.0000e-005**	**2.5000e-004**	**2.6279**

3.5 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	0.1966	1.7993	1.8843	3.1000e-003		0.0932	0.0932		0.0877	0.0877	0.0000	266.9515	266.9515	0.0640	0.0000	268.5505
Total	**0.1966**	**1.7993**	**1.8843**	**3.1000e-003**		**0.0932**	**0.0932**		**0.0877**	**0.0877**	**0.0000**	**266.9515**	**266.9515**	**0.0640**	**0.0000**	**268.5505**

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 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	1.4000e-004	5.8200e-003	7.9000e-004	2.0000e-005	4.0000e-004	5.0000e-005	4.5000e-004	1.1000e-004	5.0000e-005	1.6000e-004	0.0000	1.5573	1.5573	1.0000e-005	2.4000e-004	1.6304
Vendor	3.3100e-003	0.0729	0.0184	2.2000e-004	6.2400e-003	7.1000e-004	6.9600e-003	1.8100e-003	6.8000e-004	2.4900e-003	0.0000	20.6753	20.6753	1.4000e-004	3.0300e-003	21.5811
Worker	0.0167	0.0112	0.1070	1.8000e-004	0.0190	1.5000e-004	0.0191	5.0500e-003	1.4000e-004	5.1900e-003	0.0000	16.7406	16.7406	9.3000e-004	7.6000e-004	16.9896
Total	**0.0201**	**0.0899**	**0.1263**	**4.2000e-004**	**0.0256**	**9.1000e-004**	**0.0266**	**6.9700e-003**	**8.7000e-004**	**7.8400e-003**	**0.0000**	**38.9732**	**38.9732**	**1.0800e-003**	**4.0300e-003**	**40.2011**

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	0.0646	0.3103	2.0338	3.1000e-003		0.0117	0.0117		0.0117	0.0117	0.0000	266.9512	266.9512	0.0640	0.0000	268.5502
Total	**0.0646**	**0.3103**	**2.0338**	**3.1000e-003**		**0.0117**	**0.0117**		**0.0117**	**0.0117**	**0.0000**	**266.9512**	**266.9512**	**0.0640**	**0.0000**	**268.5502**

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 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	1.4000e-004	5.8200e-003	7.9000e-004	2.0000e-005	4.0000e-004	5.0000e-005	4.5000e-004	1.1000e-004	5.0000e-005	1.6000e-004	0.0000	1.5573	1.5573	1.0000e-005	2.4000e-004	1.6304
Vendor	3.3100e-003	0.0729	0.0184	2.2000e-004	6.2400e-003	7.1000e-004	6.9600e-003	1.8100e-003	6.8000e-004	2.4900e-003	0.0000	20.6753	20.6753	1.4000e-004	3.0300e-003	21.5811
Worker	0.0167	0.0112	0.1070	1.8000e-004	0.0190	1.5000e-004	0.0191	5.0500e-003	1.4000e-004	5.1900e-003	0.0000	16.7406	16.7406	9.3000e-004	7.6000e-004	16.9896
Total	**0.0201**	**0.0899**	**0.1263**	**4.2000e-004**	**0.0256**	**9.1000e-004**	**0.0266**	**6.9700e-003**	**8.7000e-004**	**7.8400e-003**	**0.0000**	**38.9732**	**38.9732**	**1.0800e-003**	**4.0300e-003**	**40.2011**

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	0.1957					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0127	0.0163	3.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	2.2979	2.2979	1.5000e-004	0.0000	2.3017
Total	**0.1975**	**0.0127**	**0.0163**	**3.0000e-005**		**7.4000e-004**	**7.4000e-004**		**7.4000e-004**	**7.4000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.5000e-004**	**0.0000**	**2.3017**

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.0000e-005	2.4000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0649	0.0649	0.0000	1.0000e-005	0.0679
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	5.0000e-004	4.8000e-003	1.0000e-005	8.5000e-004	1.0000e-005	8.6000e-004	2.3000e-004	1.0000e-005	2.3000e-004	0.0000	0.7511	0.7511	4.0000e-005	3.0000e-005	0.7623
Total	**7.6000e-004**	**7.4000e-004**	**4.8300e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.8000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.8160**	**0.8160**	**4.0000e-005**	**4.0000e-005**	**0.8302**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1957					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-004	1.1600e-003	0.0165	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.2979	2.2979	1.5000e-004	0.0000	2.3017
Total	**0.1960**	**1.1600e-003**	**0.0165**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.2979**	**2.2979**	**1.5000e-004**	**0.0000**	**2.3017**

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.0000e-005	2.4000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0649	0.0649	0.0000	1.0000e-005	0.0679
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	5.0000e-004	4.8000e-003	1.0000e-005	8.5000e-004	1.0000e-005	8.6000e-004	2.3000e-004	1.0000e-005	2.3000e-004	0.0000	0.7511	0.7511	4.0000e-005	3.0000e-005	0.7623
Total	**7.6000e-004**	**7.4000e-004**	**4.8300e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.8000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.8160**	**0.8160**	**4.0000e-005**	**4.0000e-005**	**0.8302**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Phase 1 Construction (Mitigated) - Lake County, Annual

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	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	0.00	0.00	0.00		
Fast Food Restaurant with Drive Thru	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Convenience Market with Gas	9.50	7.30	7.30	0.80	80.20	19.00	14	21	65
Fast Food Restaurant with Drive	9.50	7.30	7.30	2.20	78.80	19.00	29	21	50
High Turnover (Sit Down	9.50	7.30	7.30	8.50	72.50	19.00	37	20	43
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.447993	0.068263	0.190544	0.162475	0.057163	0.010407	0.008547	0.005883	0.000437	0.000000	0.038470	0.001253	0.008567
Fast Food Restaurant with Drive Thru	0.447993	0.068263	0.190544	0.162475	0.057163	0.010407	0.008547	0.005883	0.000437	0.000000	0.038470	0.001253	0.008567
High Turnover (Sit Down Restaurant)	0.447993	0.068263	0.190544	0.162475	0.057163	0.010407	0.008547	0.005883	0.000437	0.000000	0.038470	0.001253	0.008567
Other Asphalt Surfaces	0.447993	0.068263	0.190544	0.162475	0.057163	0.010407	0.008547	0.005883	0.000437	0.000000	0.038470	0.001253	0.008567
Parking Lot	0.447993	0.068263	0.190544	0.162475	0.057163	0.010407	0.008547	0.005883	0.000437	0.000000	0.038470	0.001253	0.008567
Regional Shopping Center	0.447993	0.068263	0.190544	0.162475	0.057163	0.010407	0.008547	0.005883	0.000437	0.000000	0.038470	0.001253	0.008567

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	24.5771	24.5771	3.9800e-003	4.8000e-004	24.8201
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	24.5771	24.5771	3.9800e-003	4.8000e-004	24.8201
NaturalGas Mitigated	3.4700e-003	0.0315	0.0265	1.9000e-004		2.3900e-003	2.3900e-003		2.3900e-003	2.3900e-003	0.0000	34.2925	34.2925	6.6000e-004	6.3000e-004	34.4963
NaturalGas Unmitigated	3.4700e-003	0.0315	0.0265	1.9000e-004		2.3900e-003	2.3900e-003		2.3900e-003	2.3900e-003	0.0000	34.2925	34.2925	6.6000e-004	6.3000e-004	34.4963

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
Convenience Market with Gas Pumps	43961	2.4000e-004	2.1500e-003	1.8100e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3459	2.3459	4.0000e-005	4.0000e-005	2.3599
Fast Food Restaurant with Drive Thru	214471	1.1600e-003	0.0105	8.8300e-003	6.0000e-005		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004	0.0000	11.4450	11.4450	2.2000e-004	2.1000e-004	11.5130
High Turnover (Sit Down Restaurant)	370976	2.0000e-003	0.0182	0.0153	1.1000e-004		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003	0.0000	19.7967	19.7967	3.8000e-004	3.6000e-004	19.9143
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	13209	7.0000e-005	6.5000e-004	5.4000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7049	0.7049	1.0000e-005	1.0000e-005	0.7091
Total		**3.4700e-003**	**0.0315**	**0.0265**	**1.8000e-004**		**2.3900e-003**	**2.3900e-003**		**2.3900e-003**	**2.3900e-003**	**0.0000**	**34.2925**	**34.2925**	**6.5000e-004**	**6.2000e-004**	**34.4962**

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
Convenience Market with Gas Pumps	43961	2.4000e-004	2.1500e-003	1.8100e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3459	2.3459	4.0000e-005	4.0000e-005	2.3599
Fast Food Restaurant with Drive Thru	214471	1.1600e-003	0.0105	8.8300e-003	6.0000e-005		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004	0.0000	11.4450	11.4450	2.2000e-004	2.1000e-004	11.5130
High Turnover (Sit Down Restaurant)	370976	2.0000e-003	0.0182	0.0153	1.1000e-004		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003	0.0000	19.7967	19.7967	3.8000e-004	3.6000e-004	19.9143
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	13209	7.0000e-005	6.5000e-004	5.4000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7049	0.7049	1.0000e-005	1.0000e-005	0.7091
Total		**3.4700e-003**	**0.0315**	**0.0265**	**1.8000e-004**		**2.3900e-003**	**2.3900e-003**		**2.3900e-003**	**2.3900e-003**	**0.0000**	**34.2925**	**34.2925**	**6.5000e-004**	**6.2000e-004**	**34.4962**

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	79917.9	7.3943	1.2000e-003	1.5000e-004	7.4674
Fast Food Restaurant with Drive Thru	44659	4.1320	6.7000e-004	8.0000e-005	4.1729
High Turnover (Sit Down Restaurant)	77248	7.1473	1.1600e-003	1.4000e-004	7.2180
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	39792.1	3.6817	6.0000e-004	7.0000e-005	3.7181
Regional Shopping Center	24013	2.2218	3.6000e-004	4.0000e-005	2.2437
Total		**24.5771**	**3.9900e-003**	**4.8000e-004**	**24.8201**

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	79917.9	7.3943	1.2000e-003	1.5000e-004	7.4674
Fast Food Restaurant with Drive Thru	44659	4.1320	6.7000e-004	8.0000e-005	4.1729
High Turnover (Sit Down Restaurant)	77248	7.1473	1.1600e-003	1.4000e-004	7.2180
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	39792.1	3.6817	6.0000e-004	7.0000e-005	3.7181
Regional Shopping Center	24013	2.2218	3.6000e-004	4.0000e-005	2.2437
Total		**24.5771**	**3.9900e-003**	**4.8000e-004**	**24.8201**

6.0 Area Detail

6.1 Mitigation Measures Area

Phase 1 Construction (Mitigated) - Lake County, Annual

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	tons/yr										MT/yr					
Mitigated	0.0664	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.9000e-004	2.9000e-004	0.0000	0.0000	3.0000e-004
Unmitigated	0.0664	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.9000e-004	2.9000e-004	0.0000	0.0000	3.0000e-004

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	0.0196					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0469					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.9000e-004	2.9000e-004	0.0000	0.0000	3.0000e-004
Total	**0.0664**	**0.0000**	**1.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.9000e-004**	**2.9000e-004**	**0.0000**	**0.0000**	**3.0000e-004**

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0196					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0469					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.9000e-004	2.9000e-004	0.0000	0.0000	3.0000e-004
Total	**0.0664**	**0.0000**	**1.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.9000e-004**	**2.9000e-004**	**0.0000**	**0.0000**	**3.0000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.8884	0.0695	1.6600e-003	4.1200
Unmitigated	1.8884	0.0695	1.6600e-003	4.1200

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.456287 / 0.27966	0.4638	0.0149	3.6000e-004	0.9432
Fast Food Restaurant with Drive Thru	0.561537 / 0.0358428	0.4709	0.0184	4.4000e-004	1.0600
High Turnover (Sit Down Restaurant)	0.971308 / 0.0619984	0.8145	0.0317	7.6000e-004	1.8335
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.137034 / 0.0839887	0.1393	4.4800e-003	1.1000e-004	0.2833
Total		**1.8884**	**0.0695**	**1.6700e-003**	**4.1200**

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.456287 / 0.27966	0.4638	0.0149	3.6000e-004	0.9432
Fast Food Restaurant with Drive Thru	0.561537 / 0.0358428	0.4709	0.0184	4.4000e-004	1.0600
High Turnover (Sit Down Restaurant)	0.971308 / 0.0619984	0.8145	0.0317	7.6000e-004	1.8335
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.137034 / 0.0839887	0.1393	4.4800e-003	1.1000e-004	0.2833
Total		**1.8884**	**0.0695**	**1.6700e-003**	**4.1200**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	16.2068	0.9578	0.0000	40.1517
Unmitigated	16.2068	0.9578	0.0000	40.1517

Phase 1 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market with Gas Pumps	18.51	3.7574	0.2221	0.0000	9.3087
Fast Food Restaurant with Drive Thru	21.31	4.3257	0.2556	0.0000	10.7168
High Turnover (Sit Down Restaurant)	38.08	7.7299	0.4568	0.0000	19.1505
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.94	0.3938	0.0233	0.0000	0.9756
Total		**16.2068**	**0.9578**	**0.0000**	**40.1517**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market with Gas Pumps	18.51	3.7574	0.2221	0.0000	9.3087
Fast Food Restaurant with Drive Thru	21.31	4.3257	0.2556	0.0000	10.7168
High Turnover (Sit Down Restaurant)	38.08	7.7299	0.4568	0.0000	19.1505
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.94	0.3938	0.0233	0.0000	0.9756
Total		**16.2068**	**0.9578**	**0.0000**	**40.1517**

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Phase 2 Construction (Mitigated)

Lake County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.38	Acre	0.38	16,552.80	0
Parking Lot	3.06	Acre	3.06	133,293.60	0
Hotel	70.00	Room	0.34	101,640.00	0
Recreational Swimming Pool	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	67
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Phase 2 project construction with mitigation incorporated
Construction start date and buildout year based on information provided in the Project Description

Land Use - Phase 2 - Parcel D
Land Uses to represent Phase 2 development based on information provided in the project description and TIA.
Estimate of acreage for Parcel D based on site plan dated August 2021.

Construction Phase - Phase 2 Construction Start Date: January 1, 2023
Construction Duration: 9 months
No demolition

Off-road Equipment - Adjusted construction equipment usage to match CalEEMod default total building construction HP hours.

Trips and VMT - Additional truck trips were added to each phase for mobilization/demobilization of on-site equipment (two trips per piece of equipment).
Additional vendor trips added to the paving phase to account for delivery of materials.

Grading - Cut/fill anticipated to be balanced on site (applicant-provided information)

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Vehicle Trips - Construction only run

Consumer Products - Construction only run

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Construction Off-road Equipment Mitigation - Tier 4 equipment for off-road equipment >50 HP

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	230.00	147.00
tblConsumerProducts	ROG_EF	2.14E-05	1.62E-05
tblLandUse	LotAcreage	2.33	0.34
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	5.50
tblOffRoadEquipment	UsageHours	8.00	6.30
tblOffRoadEquipment	UsageHours	8.00	6.30
tblOffRoadEquipment	UsageHours	7.00	5.50
tblOffRoadEquipment	UsageHours	8.00	6.30
tblTripsAndVMT	HaulingTripNumber	0.00	14.00
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	16.00
tblTripsAndVMT	HaulingTripNumber	0.00	36.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblVehicleTrips	WD_TR	28.82	0.00

2.0 Emissions Summary

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.5004	2.1289	2.4882	4.8300e-003	0.1633	0.0934	0.2567	0.0623	0.0877	0.1500	0.0000	426.1927	426.1927	0.0777	0.0121	431.7434
Maximum	**1.5004**	**2.1289**	**2.4882**	**4.8300e-003**	**0.1633**	**0.0934**	**0.2567**	**0.0623**	**0.0877**	**0.1500**	**0.0000**	**426.1927**	**426.1927**	**0.0777**	**0.0121**	**431.7434**

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	1.3630	0.5669	2.6847	4.8300e-003	0.1207	0.0133	0.1339	0.0408	0.0132	0.0540	0.0000	426.1924	426.1924	0.0777	0.0121	431.7431
Maximum	**1.3630**	**0.5669**	**2.6847**	**4.8300e-003**	**0.1207**	**0.0133**	**0.1339**	**0.0408**	**0.0132**	**0.0540**	**0.0000**	**426.1924**	**426.1924**	**0.0777**	**0.0121**	**431.7431**

	ROG	NOx	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	**9.16**	**73.37**	**-7.90**	**0.00**	**26.10**	**85.79**	**47.82**	**34.41**	**84.98**	**63.99**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2023	3-31-2023	0.7308	0.1922
2	4-1-2023	6-30-2023	0.9375	0.2848
3	7-1-2023	9-30-2023	1.8879	1.3887
		Highest	1.8879	1.3887

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	0.4336	1.0000e-005	6.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3300e-003	1.3300e-003	0.0000	0.0000	1.4200e-003
Energy	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	184.0117	184.0117	0.0139	3.4700e-003	185.3912
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	8.9357	0.0000	8.9357	0.5281	0.0000	22.1377
Water						0.0000	0.0000		0.0000	0.0000	0.5821	0.9942	1.5763	0.0600	1.4300e-003	3.5015
Total	**0.4449**	**0.1025**	**0.0867**	**6.1000e-004**	**0.0000**	**7.7900e-003**	**7.7900e-003**	**0.0000**	**7.7900e-003**	**7.7900e-003**	**9.5178**	**185.0072**	**194.5250**	**0.6019**	**4.9000e-003**	**211.0319**

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.4336	1.0000e-005	6.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3300e-003	1.3300e-003	0.0000	0.0000	1.4200e-003
Energy	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	184.0117	184.0117	0.0139	3.4700e-003	185.3912
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	8.9357	0.0000	8.9357	0.5281	0.0000	22.1377
Water						0.0000	0.0000		0.0000	0.0000	0.5821	0.9942	1.5763	0.0600	1.4300e-003	3.5015
Total	**0.4449**	**0.1025**	**0.0867**	**6.1000e-004**	**0.0000**	**7.7900e-003**	**7.7900e-003**	**0.0000**	**7.7900e-003**	**7.7900e-003**	**9.5178**	**185.0072**	**194.5250**	**0.6019**	**4.9000e-003**	**211.0319**

	ROG	NOx	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	1/6/2023	5	5	
2	Grading	Grading	1/7/2023	1/18/2023	5	8	
3	Paving	Paving	1/19/2023	2/13/2023	5	18	

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Building Construction	Building Construction	2/14/2023	9/6/2023	5	147	Adjusted to match applicant-provided schedule
5	Architectural Coating	Architectural Coating	9/7/2023	10/2/2023	5	18	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 3.44

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 152,610; Non-Residential Outdoor: 50,870; Striped Parking Area: 8,991 (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	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	2	5.50	231	0.29
Building Construction	Forklifts	6	6.30	89	0.20
Building Construction	Generator Sets	2	6.30	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	5.50	97	0.37
Building Construction	Welders	2	6.30	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	12.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	4.00	16.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	106.00	41.00	36.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	21.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

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					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0688	0.0456	1.0000e-004		3.1700e-003	3.1700e-003		2.9100e-003	2.9100e-003	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303
Total	**6.6500e-003**	**0.0688**	**0.0456**	**1.0000e-004**	**0.0491**	**3.1700e-003**	**0.0523**	**0.0253**	**2.9100e-003**	**0.0282**	**0.0000**	**8.3627**	**8.3627**	**2.7000e-003**	**0.0000**	**8.4303**

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.4100e-003	1.9000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.4386	0.4386	0.0000	7.0000e-005	0.4592
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	1.8000e-004	1.7900e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3037	0.3037	2.0000e-005	1.0000e-005	0.3079
Total	**3.1000e-004**	**1.5900e-003**	**1.9800e-003**	**0.0000**	**4.7000e-004**	**1.0000e-005**	**4.9000e-004**	**1.2000e-004**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**0.7423**	**0.7423**	**2.0000e-005**	**8.0000e-005**	**0.7671**

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					0.0221	0.0000	0.0221	0.0114	0.0000	0.0114	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1600e-003	5.0400e-003	0.0522	1.0000e-004		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303
Total	**1.1600e-003**	**5.0400e-003**	**0.0522**	**1.0000e-004**	**0.0221**	**1.6000e-004**	**0.0223**	**0.0114**	**1.6000e-004**	**0.0115**	**0.0000**	**8.3627**	**8.3627**	**2.7000e-003**	**0.0000**	**8.4303**

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.4100e-003	1.9000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.4386	0.4386	0.0000	7.0000e-005	0.4592
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	1.8000e-004	1.7900e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3037	0.3037	2.0000e-005	1.0000e-005	0.3079
Total	**3.1000e-004**	**1.5900e-003**	**1.9800e-003**	**0.0000**	**4.7000e-004**	**1.0000e-005**	**4.9000e-004**	**1.2000e-004**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**0.7423**	**0.7423**	**2.0000e-005**	**8.0000e-005**	**0.7671**

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					0.0283	0.0000	0.0283	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8400e-003	0.0717	0.0590	1.2000e-004		3.1000e-003	3.1000e-003		2.8500e-003	2.8500e-003	0.0000	10.4243	10.4243	3.3700e-003	0.0000	10.5085
Total	**6.8400e-003**	**0.0717**	**0.0590**	**1.2000e-004**	**0.0283**	**3.1000e-003**	**0.0314**	**0.0137**	**2.8500e-003**	**0.0166**	**0.0000**	**10.4243**	**10.4243**	**3.3700e-003**	**0.0000**	**10.5085**

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.2100e-003	1.6000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3760	0.3760	0.0000	6.0000e-005	0.3936
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	3.9000e-004	2.4000e-004	2.3900e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4049	0.4049	2.0000e-005	2.0000e-005	0.4105
Total	**4.1000e-004**	**1.4500e-003**	**2.5500e-003**	**0.0000**	**5.7000e-004**	**1.0000e-005**	**5.9000e-004**	**1.6000e-004**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**0.7809**	**0.7809**	**2.0000e-005**	**8.0000e-005**	**0.8041**

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					0.0128	0.0000	0.0128	6.1600e-003	0.0000	6.1600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4500e-003	6.2900e-003	0.0710	1.2000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	10.4242	10.4242	3.3700e-003	0.0000	10.5085
Total	**1.4500e-003**	**6.2900e-003**	**0.0710**	**1.2000e-004**	**0.0128**	**1.9000e-004**	**0.0129**	**6.1600e-003**	**1.9000e-004**	**6.3500e-003**	**0.0000**	**10.4242**	**10.4242**	**3.3700e-003**	**0.0000**	**10.5085**

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.2100e-003	1.6000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3760	0.3760	0.0000	6.0000e-005	0.3936
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	3.9000e-004	2.4000e-004	2.3900e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4049	0.4049	2.0000e-005	2.0000e-005	0.4105
Total	**4.1000e-004**	**1.4500e-003**	**2.5500e-003**	**0.0000**	**5.7000e-004**	**1.0000e-005**	**5.9000e-004**	**1.6000e-004**	**1.0000e-005**	**1.7000e-004**	**0.0000**	**0.7809**	**0.7809**	**2.0000e-005**	**8.0000e-005**	**0.8041**

3.4 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	8.2600e-003	0.0791	0.1097	1.7000e-004		3.9200e-003	3.9200e-003		3.6200e-003	3.6200e-003	0.0000	14.7407	14.7407	4.6300e-003	0.0000	14.8565
Paving	4.5100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0128**	**0.0791**	**0.1097**	**1.7000e-004**		**3.9200e-003**	**3.9200e-003**		**3.6200e-003**	**3.6200e-003**	**0.0000**	**14.7407**	**14.7407**	**4.6300e-003**	**0.0000**	**14.8565**

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 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	2.0000e-005	1.6100e-003	2.2000e-004	1.0000e-005	1.3000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5013	0.5013	0.0000	8.0000e-005	0.5248
Vendor	7.0000e-005	2.2700e-003	5.7000e-004	1.0000e-005	2.4000e-004	1.0000e-005	2.5000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	0.7561	0.7561	0.0000	1.1000e-004	0.7891
Worker	1.1600e-003	7.3000e-004	7.1800e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2147	1.2147	6.0000e-005	5.0000e-005	1.2316
Total	**1.2500e-003**	**4.6100e-003**	**7.9700e-003**	**3.0000e-005**	**1.7900e-003**	**3.0000e-005**	**1.8300e-003**	**4.9000e-004**	**3.0000e-005**	**5.2000e-004**	**0.0000**	**2.4721**	**2.4721**	**6.0000e-005**	**2.4000e-004**	**2.5455**

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	2.7700e-003	0.0135	0.1260	1.7000e-004		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	14.7407	14.7407	4.6300e-003	0.0000	14.8565
Paving	4.5100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.2800e-003**	**0.0135**	**0.1260**	**1.7000e-004**		**4.6000e-004**	**4.6000e-004**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**14.7407**	**14.7407**	**4.6300e-003**	**0.0000**	**14.8565**

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 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	2.0000e-005	1.6100e-003	2.2000e-004	1.0000e-005	1.3000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5013	0.5013	0.0000	8.0000e-005	0.5248
Vendor	7.0000e-005	2.2700e-003	5.7000e-004	1.0000e-005	2.4000e-004	1.0000e-005	2.5000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	0.7561	0.7561	0.0000	1.1000e-004	0.7891
Worker	1.1600e-003	7.3000e-004	7.1800e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2147	1.2147	6.0000e-005	5.0000e-005	1.2316
Total	**1.2500e-003**	**4.6100e-003**	**7.9700e-003**	**3.0000e-005**	**1.7900e-003**	**3.0000e-005**	**1.8300e-003**	**4.9000e-004**	**3.0000e-005**	**5.2000e-004**	**0.0000**	**2.4721**	**2.4721**	**6.0000e-005**	**2.4000e-004**	**2.5455**

3.5 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	0.1819	1.6633	1.8785	3.1200e-003		0.0809	0.0809		0.0761	0.0761	0.0000	268.0380	268.0380	0.0637	0.0000	269.6314
Total	**0.1819**	**1.6633**	**1.8785**	**3.1200e-003**		**0.0809**	**0.0809**		**0.0761**	**0.0761**	**0.0000**	**268.0380**	**268.0380**	**0.0637**	**0.0000**	**269.6314**

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 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	5.0000e-005	3.6300e-003	4.9000e-004	1.0000e-005	3.0000e-004	3.0000e-005	3.3000e-004	8.0000e-005	2.0000e-005	1.1000e-004	0.0000	1.1279	1.1279	0.0000	1.8000e-004	1.1808
Vendor	6.1100e-003	0.1902	0.0478	6.6000e-004	0.0197	1.1200e-003	0.0208	5.7000e-003	1.0700e-003	6.7700e-003	0.0000	63.2926	63.2926	2.6000e-004	9.2400e-003	66.0515
Worker	0.0502	0.0317	0.3107	5.7000e-004	0.0615	4.6000e-004	0.0619	0.0164	4.2000e-004	0.0168	0.0000	52.5754	52.5754	2.7000e-003	2.2300e-003	53.3077
Total	**0.0564**	**0.2255**	**0.3590**	**1.2400e-003**	**0.0815**	**1.6100e-003**	**0.0831**	**0.0221**	**1.5100e-003**	**0.0237**	**0.0000**	**116.9959**	**116.9959**	**2.9600e-003**	**0.0117**	**120.5399**

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	0.0623	0.3067	2.0400	3.1200e-003		0.0108	0.0108		0.0108	0.0108	0.0000	268.0377	268.0377	0.0637	0.0000	269.6311
Total	**0.0623**	**0.3067**	**2.0400**	**3.1200e-003**		**0.0108**	**0.0108**		**0.0108**	**0.0108**	**0.0000**	**268.0377**	**268.0377**	**0.0637**	**0.0000**	**269.6311**

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 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	5.0000e-005	3.6300e-003	4.9000e-004	1.0000e-005	3.0000e-004	3.0000e-005	3.3000e-004	8.0000e-005	2.0000e-005	1.1000e-004	0.0000	1.1279	1.1279	0.0000	1.8000e-004	1.1808
Vendor	6.1100e-003	0.1902	0.0478	6.6000e-004	0.0197	1.1200e-003	0.0208	5.7000e-003	1.0700e-003	6.7700e-003	0.0000	63.2926	63.2926	2.6000e-004	9.2400e-003	66.0515
Worker	0.0502	0.0317	0.3107	5.7000e-004	0.0615	4.6000e-004	0.0619	0.0164	4.2000e-004	0.0168	0.0000	52.5754	52.5754	2.7000e-003	2.2300e-003	53.3077
Total	**0.0564**	**0.2255**	**0.3590**	**1.2400e-003**	**0.0815**	**1.6100e-003**	**0.0831**	**0.0221**	**1.5100e-003**	**0.0237**	**0.0000**	**116.9959**	**116.9959**	**2.9600e-003**	**0.0117**	**120.5399**

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	1.2310					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7200e-003	0.0117	0.0163	3.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	2.2979	2.2979	1.4000e-004	0.0000	2.3014
Total	**1.2327**	**0.0117**	**0.0163**	**3.0000e-005**		**6.4000e-004**	**6.4000e-004**		**6.4000e-004**	**6.4000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.4000e-004**	**0.0000**	**2.3014**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0627	0.0627	0.0000	1.0000e-005	0.0656
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	1.2200e-003	7.7000e-004	7.5400e-003	1.0000e-005	1.4900e-003	1.0000e-005	1.5000e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.2754	1.2754	7.0000e-005	5.0000e-005	1.2932
Total	**1.2200e-003**	**9.7000e-004**	**7.5700e-003**	**1.0000e-005**	**1.5100e-003**	**1.0000e-005**	**1.5200e-003**	**4.0000e-004**	**1.0000e-005**	**4.2000e-004**	**0.0000**	**1.3381**	**1.3381**	**7.0000e-005**	**6.0000e-005**	**1.3588**

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	1.2310					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-004	1.1600e-003	0.0165	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.2979	2.2979	1.4000e-004	0.0000	2.3014
Total	**1.2313**	**1.1600e-003**	**0.0165**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.2979**	**2.2979**	**1.4000e-004**	**0.0000**	**2.3014**

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0627	0.0627	0.0000	1.0000e-005	0.0656
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	1.2200e-003	7.7000e-004	7.5400e-003	1.0000e-005	1.4900e-003	1.0000e-005	1.5000e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.2754	1.2754	7.0000e-005	5.0000e-005	1.2932
Total	**1.2200e-003**	**9.7000e-004**	**7.5700e-003**	**1.0000e-005**	**1.5100e-003**	**1.0000e-005**	**1.5200e-003**	**4.0000e-004**	**1.0000e-005**	**4.2000e-004**	**0.0000**	**1.3381**	**1.3381**	**7.0000e-005**	**6.0000e-005**	**1.3588**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Phase 2 Construction (Mitigated) - Lake County, Annual

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	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	9.50	7.30	7.30	33.00	48.00	19.00	52	39	9

4.4 Fleet Mix

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.456449	0.066493	0.191214	0.159357	0.054432	0.010008	0.008352	0.006045	0.000425	0.000000	0.038112	0.001232	0.007880
Other Asphalt Surfaces	0.456449	0.066493	0.191214	0.159357	0.054432	0.010008	0.008352	0.006045	0.000425	0.000000	0.038112	0.001232	0.007880
Parking Lot	0.456449	0.066493	0.191214	0.159357	0.054432	0.010008	0.008352	0.006045	0.000425	0.000000	0.038112	0.001232	0.007880
Recreational Swimming Pool	0.456449	0.066493	0.191214	0.159357	0.054432	0.010008	0.008352	0.006045	0.000425	0.000000	0.038112	0.001232	0.007880

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	72.4963	72.4963	0.0117	1.4200e-003	73.2132
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	72.4963	72.4963	0.0117	1.4200e-003	73.2132
NaturalGas Mitigated	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.5153	111.5153	2.1400e-003	2.0400e-003	112.1780
NaturalGas Unmitigated	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.5153	111.5153	2.1400e-003	2.0400e-003	112.1780

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
Hotel	2.08972e+006	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.5153	111.5153	2.1400e-003	2.0400e-003	112.1780
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	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
Total		**0.0113**	**0.1024**	**0.0861**	**6.1000e-004**		**7.7900e-003**	**7.7900e-003**		**7.7900e-003**	**7.7900e-003**	**0.0000**	**111.5153**	**111.5153**	**2.1400e-003**	**2.0400e-003**	**112.1780**

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
Hotel	2.08972e+006	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.5153	111.5153	2.1400e-003	2.0400e-003	112.1780
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	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
Total		**0.0113**	**0.1024**	**0.0861**	**6.1000e-004**		**7.7900e-003**	**7.7900e-003**		**7.7900e-003**	**7.7900e-003**	**0.0000**	**111.5153**	**111.5153**	**2.1400e-003**	**2.0400e-003**	**112.1780**

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	736890	68.1798	0.0110	1.3400e-003	68.8540
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	46652.8	4.3165	7.0000e-004	8.0000e-005	4.3592
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Total		**72.4963**	**0.0117**	**1.4200e-003**	**73.2132**

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	736890	68.1798	0.0110	1.3400e-003	68.8540
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	46652.8	4.3165	7.0000e-004	8.0000e-005	4.3592
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Total		**72.4963**	**0.0117**	**1.4200e-003**	**73.2132**

6.0 Area Detail

6.1 Mitigation Measures Area

Phase 2 Construction (Mitigated) - Lake County, Annual

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	tons/yr										MT/yr					
Mitigated	0.4336	1.0000e-005	6.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3300e-003	1.3300e-003	0.0000	0.0000	1.4200e-003
Unmitigated	0.4336	1.0000e-005	6.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3300e-003	1.3300e-003	0.0000	0.0000	1.4200e-003

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	0.1231					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3105					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3300e-003	1.3300e-003	0.0000	0.0000	1.4200e-003
Total	**0.4336**	**1.0000e-005**	**6.8000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.3300e-003**	**1.3300e-003**	**0.0000**	**0.0000**	**1.4200e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.1231					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3105					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3300e-003	1.3300e-003	0.0000	0.0000	1.4200e-003
Total	**0.4336**	**1.0000e-005**	**6.8000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.3300e-003**	**1.3300e-003**	**0.0000**	**0.0000**	**1.4200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.5763	0.0600	1.4300e-003	3.5015
Unmitigated	1.5763	0.0600	1.4300e-003	3.5015

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	1.77567 / 0.197297	1.5162	0.0580	1.3800e-003	3.3793
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.0591431 / 0.036249	0.0601	1.9300e-003	5.0000e-005	0.1223
Total		**1.5763**	**0.0599**	**1.4300e-003**	**3.5015**

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	1.77567 / 0.197297	1.5162	0.0580	1.3800e-003	3.3793
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.0591431 / 0.036249	0.0601	1.9300e-003	5.0000e-005	0.1223
Total		**1.5763**	**0.0599**	**1.4300e-003**	**3.5015**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.9357	0.5281	0.0000	22.1377
Unmitigated	8.9357	0.5281	0.0000	22.1377

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	38.32	7.7786	0.4597	0.0000	19.2712
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	5.7	1.1571	0.0684	0.0000	2.8665
Total		**8.9357**	**0.5281**	**0.0000**	**22.1377**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	38.32	7.7786	0.4597	0.0000	19.2712
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	5.7	1.1571	0.0684	0.0000	2.8665
Total		**8.9357**	**0.5281**	**0.0000**	**22.1377**

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

Phase 2 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number

11.0 Vegetation

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Phase 3 Construction (Mitigated)

Lake County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.85	Acre	0.85	37,026.00	0
Parking Lot	6.54	Acre	6.54	284,882.40	0
Regional Shopping Center	46.63	1000sqft	1.07	46,630.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	67
Climate Zone	1			**Operational Year**	2024
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Phase 3 project construction with mitigation incorporated
Development of 46,630 sq ft commercial shopping/retail space

Land Use - Phase 3 - Development of 46,630 sq ft commercial shopping/retail space
Land Uses to represent Phase 3 development based on information provided in the project description and TIA.
Estimate of acreage for remaining parcels based on site plan.

Construction Phase - Phase 3 Construction Start Date: October 3, 2023 (assumed to begin immediately following the completion of Phase 2 construction)
CalEEMod default duration
No demolition

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT - Additional truck trips were added to each phase for mobilization/demobilization of on-site equipment (two trips per piece of equipment). Additional vendor trips added to the paving phase to account for delivery of materials.

Grading - Cut/fill anticipated to be balanced on site (applicant-provided information)

Architectural Coating -

Vehicle Trips - Construction only run

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Consumer Products - Construction only run

Area Coating -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Fleet Mix -

Construction Off-road Equipment Mitigation - Tier 4 equipment for off-road equipment >50 HP

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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	10.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConsumerProducts	ROG_EF	2.14E-05	1.62E-05
tblTripsAndVMT	HaulingTripNumber	0.00	14.00
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	18.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	46.12	0.00
tblVehicleTrips	SU_TR	21.10	0.00
tblVehicleTrips	WD_TR	37.75	0.00

2.0 Emissions Summary

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0717	0.5584	0.5635	1.1200e-003	0.1838	0.0244	0.2082	0.0887	0.0225	0.1113	0.0000	99.6429	99.6429	0.0247	2.0100e-003	100.8611
2024	0.9239	1.9234	2.4549	5.5300e-003	0.1727	0.0701	0.2427	0.0469	0.0660	0.1129	0.0000	495.9741	495.9741	0.0650	0.0240	504.7531
Maximum	**0.9239**	**1.9234**	**2.4549**	**5.5300e-003**	**0.1838**	**0.0701**	**0.2427**	**0.0887**	**0.0660**	**0.1129**	**0.0000**	**495.9741**	**495.9741**	**0.0650**	**0.0240**	**504.7531**

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	0.0325	0.0954	0.6436	1.1200e-003	0.0908	2.1000e-003	0.0929	0.0421	2.0900e-003	0.0442	0.0000	99.6428	99.6428	0.0247	2.0100e-003	100.8610
2024	0.8196	0.7427	2.6128	5.5300e-003	0.1727	0.0125	0.1851	0.0469	0.0123	0.0592	0.0000	495.9738	495.9738	0.0650	0.0240	504.7528
Maximum	**0.8196**	**0.7427**	**2.6128**	**5.5300e-003**	**0.1727**	**0.0125**	**0.1851**	**0.0469**	**0.0123**	**0.0592**	**0.0000**	**495.9738**	**495.9738**	**0.0650**	**0.0240**	**504.7528**

Phase 3 Construction (Mitigated) - Lake County, Annual

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	**14.41**	**66.23**	**-7.88**	**0.00**	**26.09**	**84.58**	**38.34**	**34.36**	**83.75**	**53.86**	**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	**10-3-2023**	**1-2-2024**	0.6492	0.1366
2	**1-3-2024**	**4-2-2024**	0.6596	0.2766
3	**4-3-2024**	**7-2-2024**	0.6513	0.2684
4	**7-3-2024**	**9-30-2024**	0.6442	0.2654
		Highest	0.6596	0.2766

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	0.2239	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.7000e-004	9.7000e-004	0.0000	0.0000	1.0300e-003
Energy	1.8000e-003	0.0163	0.0137	1.0000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	82.9930	82.9930	0.0109	1.6000e-003	83.7435
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	9.9384	0.0000	9.9384	0.5873	0.0000	24.6221
Water						0.0000	0.0000		0.0000	0.0000	1.0958	2.4148	3.5106	0.1129	2.7000e-003	7.1401
Total	**0.2257**	**0.0163**	**0.0142**	**1.0000e-004**	**0.0000**	**1.2400e-003**	**1.2400e-003**	**0.0000**	**1.2400e-003**	**1.2400e-003**	**11.0342**	**85.4087**	**96.4430**	**0.7112**	**4.3000e-003**	**115.5067**

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.2239	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.7000e-004	9.7000e-004	0.0000	0.0000	1.0300e-003
Energy	1.8000e-003	0.0163	0.0137	1.0000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	82.9930	82.9930	0.0109	1.6000e-003	83.7435
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	9.9384	0.0000	9.9384	0.5873	0.0000	24.6221
Water						0.0000	0.0000		0.0000	0.0000	1.0958	2.4148	3.5106	0.1129	2.7000e-003	7.1401
Total	**0.2257**	**0.0163**	**0.0142**	**1.0000e-004**	**0.0000**	**1.2400e-003**	**1.2400e-003**	**0.0000**	**1.2400e-003**	**1.2400e-003**	**11.0342**	**85.4087**	**96.4430**	**0.7112**	**4.3000e-003**	**115.5067**

	ROG	NOx	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	10/3/2023	10/16/2023	5	10	
2	Grading	Grading	10/17/2023	11/13/2023	5	20	
3	Paving	Paving	11/14/2023	12/11/2023	5	20	

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Building Construction	Building Construction	12/12/2023	10/28/2024	5	230	
5	Architectural Coating	Architectural Coating	10/29/2024	11/25/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 20

Acres of Paving: 7.39

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 69,945; Non-Residential Outdoor: 23,315; Striped Parking Area: 19,315 (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	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
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
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
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	12.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	4.00	12.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	150.00	60.00	18.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	30.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

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**

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.4100e-003	1.9000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.4386	0.4386	0.0000	7.0000e-005	0.4592
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	3.7000e-004	3.5900e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6073	0.6073	3.0000e-005	3.0000e-005	0.6158
Total	**6.0000e-004**	**1.7800e-003**	**3.7800e-003**	**1.0000e-005**	**8.3000e-004**	**2.0000e-005**	**8.5000e-004**	**2.2000e-004**	**1.0000e-005**	**2.3000e-004**	**0.0000**	**1.0460**	**1.0460**	**3.0000e-005**	**1.0000e-004**	**1.0750**

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					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3300e-003	0.0101	0.1043	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	**2.3300e-003**	**0.0101**	**0.1043**	**1.9000e-004**	**0.0442**	**3.1000e-004**	**0.0445**	**0.0227**	**3.1000e-004**	**0.0230**	**0.0000**	**16.7253**	**16.7253**	**5.4100e-003**	**0.0000**	**16.8606**

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.4100e-003	1.9000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.4386	0.4386	0.0000	7.0000e-005	0.4592
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	3.7000e-004	3.5900e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6073	0.6073	3.0000e-005	3.0000e-005	0.6158
Total	**6.0000e-004**	**1.7800e-003**	**3.7800e-003**	**1.0000e-005**	**8.3000e-004**	**2.0000e-005**	**8.5000e-004**	**2.2000e-004**	**1.0000e-005**	**2.3000e-004**	**0.0000**	**1.0460**	**1.0460**	**3.0000e-005**	**1.0000e-004**	**1.0750**

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					0.0708	0.0000	0.0708	0.0343	0.0000	0.0343	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1794	0.1475	3.0000e-004		7.7500e-003	7.7500e-003		7.1300e-003	7.1300e-003	0.0000	26.0606	26.0606	8.4300e-003	0.0000	26.2713
Total	**0.0171**	**0.1794**	**0.1475**	**3.0000e-004**	**0.0708**	**7.7500e-003**	**0.0786**	**0.0343**	**7.1300e-003**	**0.0414**	**0.0000**	**26.0606**	**26.0606**	**8.4300e-003**	**0.0000**	**26.2713**

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.2100e-003	1.6000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3760	0.3760	0.0000	6.0000e-005	0.3936
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	9.7000e-004	6.1000e-004	5.9800e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0122	1.0122	5.0000e-005	4.0000e-005	1.0263
Total	**9.9000e-004**	**1.8200e-003**	**6.1400e-003**	**1.0000e-005**	**1.2800e-003**	**2.0000e-005**	**1.3000e-003**	**3.4000e-004**	**2.0000e-005**	**3.6000e-004**	**0.0000**	**1.3882**	**1.3882**	**5.0000e-005**	**1.0000e-004**	**1.4199**

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					0.0319	0.0000	0.0319	0.0154	0.0000	0.0154	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6300e-003	0.0157	0.1775	3.0000e-004		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004	0.0000	26.0606	26.0606	8.4300e-003	0.0000	26.2713
Total	**3.6300e-003**	**0.0157**	**0.1775**	**3.0000e-004**	**0.0319**	**4.8000e-004**	**0.0324**	**0.0154**	**4.8000e-004**	**0.0159**	**0.0000**	**26.0606**	**26.0606**	**8.4300e-003**	**0.0000**	**26.2713**

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.0000e-005	1.2100e-003	1.6000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3760	0.3760	0.0000	6.0000e-005	0.3936
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	9.7000e-004	6.1000e-004	5.9800e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0122	1.0122	5.0000e-005	4.0000e-005	1.0263
Total	**9.9000e-004**	**1.8200e-003**	**6.1400e-003**	**1.0000e-005**	**1.2800e-003**	**2.0000e-005**	**1.3000e-003**	**3.4000e-004**	**2.0000e-005**	**3.6000e-004**	**0.0000**	**1.3882**	**1.3882**	**5.0000e-005**	**1.0000e-004**	**1.4199**

3.4 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	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0269	20.0269	6.4800e-003	0.0000	20.1888
Paving	9.6800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0200**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**	**0.0000**	**20.0269**	**20.0269**	**6.4800e-003**	**0.0000**	**20.1888**

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 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	2.0000e-005	1.2100e-003	1.6000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3760	0.3760	0.0000	6.0000e-005	0.3936
Vendor	8.0000e-005	2.5200e-003	6.3000e-004	1.0000e-005	2.6000e-004	1.0000e-005	2.8000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.8401	0.8401	0.0000	1.2000e-004	0.8767
Worker	9.7000e-004	6.1000e-004	5.9800e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0122	1.0122	5.0000e-005	4.0000e-005	1.0263
Total	**1.0700e-003**	**4.3400e-003**	**6.7700e-003**	**2.0000e-005**	**1.5400e-003**	**3.0000e-005**	**1.5800e-003**	**4.2000e-004**	**3.0000e-005**	**4.5000e-004**	**0.0000**	**2.2283**	**2.2283**	**5.0000e-005**	**2.2000e-004**	**2.2967**

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	2.8000e-003	0.0122	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0268	20.0268	6.4800e-003	0.0000	20.1888
Paving	9.6800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0125**	**0.0122**	**0.1730**	**2.3000e-004**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**20.0268**	**20.0268**	**6.4800e-003**	**0.0000**	**20.1888**

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 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	2.0000e-005	1.2100e-003	1.6000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3760	0.3760	0.0000	6.0000e-005	0.3936
Vendor	8.0000e-005	2.5200e-003	6.3000e-004	1.0000e-005	2.6000e-004	1.0000e-005	2.8000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.8401	0.8401	0.0000	1.2000e-004	0.8767
Worker	9.7000e-004	6.1000e-004	5.9800e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0122	1.0122	5.0000e-005	4.0000e-005	1.0263
Total	**1.0700e-003**	**4.3400e-003**	**6.7700e-003**	**2.0000e-005**	**1.5400e-003**	**3.0000e-005**	**1.5800e-003**	**4.2000e-004**	**3.0000e-005**	**4.5000e-004**	**0.0000**	**2.2283**	**2.2283**	**5.0000e-005**	**2.2000e-004**	**2.2967**

3.5 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	0.0110	0.1007	0.1137	1.9000e-004		4.9000e-003	4.9000e-003		4.6100e-003	4.6100e-003	0.0000	16.2263	16.2263	3.8600e-003	0.0000	16.3228
Total	**0.0110**	**0.1007**	**0.1137**	**1.9000e-004**		**4.9000e-003**	**4.9000e-003**		**4.6100e-003**	**4.6100e-003**	**0.0000**	**16.2263**	**16.2263**	**3.8600e-003**	**0.0000**	**16.3228**

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 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	1.1000e-004	2.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0343	0.0343	0.0000	1.0000e-005	0.0359
Vendor	8.5000e-004	0.0265	6.6700e-003	9.0000e-005	2.7500e-003	1.6000e-004	2.9000e-003	7.9000e-004	1.5000e-004	9.4000e-004	0.0000	8.8213	8.8213	4.0000e-005	1.2900e-003	9.2058
Worker	6.7700e-003	4.2800e-003	0.0419	8.0000e-005	8.2800e-003	6.0000e-005	8.3400e-003	2.2000e-003	6.0000e-005	2.2600e-003	0.0000	7.0856	7.0856	3.6000e-004	3.0000e-004	7.1843
Total	**7.6200e-003**	**0.0309**	**0.0486**	**1.7000e-004**	**0.0110**	**2.2000e-004**	**0.0113**	**2.9900e-003**	**2.1000e-004**	**3.2000e-003**	**0.0000**	**15.9412**	**15.9412**	**4.0000e-004**	**1.6000e-003**	**16.4260**

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	3.7700e-003	0.0186	0.1235	1.9000e-004		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	16.2263	16.2263	3.8600e-003	0.0000	16.3228
Total	**3.7700e-003**	**0.0186**	**0.1235**	**1.9000e-004**		**6.5000e-004**	**6.5000e-004**		**6.5000e-004**	**6.5000e-004**	**0.0000**	**16.2263**	**16.2263**	**3.8600e-003**	**0.0000**	**16.3228**

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 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	1.1000e-004	2.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0343	0.0343	0.0000	1.0000e-005	0.0359
Vendor	8.5000e-004	0.0265	6.6700e-003	9.0000e-005	2.7500e-003	1.6000e-004	2.9000e-003	7.9000e-004	1.5000e-004	9.4000e-004	0.0000	8.8213	8.8213	4.0000e-005	1.2900e-003	9.2058
Worker	6.7700e-003	4.2800e-003	0.0419	8.0000e-005	8.2800e-003	6.0000e-005	8.3400e-003	2.2000e-003	6.0000e-005	2.2600e-003	0.0000	7.0856	7.0856	3.6000e-004	3.0000e-004	7.1843
Total	**7.6200e-003**	**0.0309**	**0.0486**	**1.7000e-004**	**0.0110**	**2.2000e-004**	**0.0113**	**2.9900e-003**	**2.1000e-004**	**3.2000e-003**	**0.0000**	**15.9412**	**15.9412**	**4.0000e-004**	**1.6000e-003**	**16.4260**

3.5 Building Construction - 2024

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	0.1589	1.4519	1.7460	2.9100e-003		0.0662	0.0662		0.0623	0.0623	0.0000	250.3970	250.3970	0.0592	0.0000	251.8773
Total	**0.1589**	**1.4519**	**1.7460**	**2.9100e-003**		**0.0662**	**0.0662**		**0.0623**	**0.0623**	**0.0000**	**250.3970**	**250.3970**	**0.0592**	**0.0000**	**251.8773**

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	1.6500e-003	2.3000e-004	1.0000e-005	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5225	0.5225	0.0000	8.0000e-005	0.5470
Vendor	0.0121	0.3984	0.0972	1.4100e-003	0.0424	2.3100e-003	0.0447	0.0123	2.2000e-003	0.0145	0.0000	134.5367	134.5367	5.2000e-004	0.0196	140.3924
Worker	0.0971	0.0580	0.5826	1.1600e-003	0.1278	8.7000e-004	0.1286	0.0340	8.0000e-004	0.0348	0.0000	105.9409	105.9409	5.0300e-003	4.2300e-003	107.3273
Total	**0.1092**	**0.4581**	**0.6800**	**2.5800e-003**	**0.1703**	**3.1900e-003**	**0.1735**	**0.0463**	**3.0100e-003**	**0.0493**	**0.0000**	**241.0001**	**241.0001**	**5.5500e-003**	**0.0239**	**248.2667**

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	0.0561	0.2820	1.9037	2.9100e-003		9.2200e-003	9.2200e-003		9.2200e-003	9.2200e-003	0.0000	250.3967	250.3967	0.0592	0.0000	251.8770
Total	**0.0561**	**0.2820**	**1.9037**	**2.9100e-003**		**9.2200e-003**	**9.2200e-003**		**9.2200e-003**	**9.2200e-003**	**0.0000**	**250.3967**	**250.3967**	**0.0592**	**0.0000**	**251.8770**

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	1.6500e-003	2.3000e-004	1.0000e-005	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5225	0.5225	0.0000	8.0000e-005	0.5470
Vendor	0.0121	0.3984	0.0972	1.4100e-003	0.0424	2.3100e-003	0.0447	0.0123	2.2000e-003	0.0145	0.0000	134.5367	134.5367	5.2000e-004	0.0196	140.3924
Worker	0.0971	0.0580	0.5826	1.1600e-003	0.1278	8.7000e-004	0.1286	0.0340	8.0000e-004	0.0348	0.0000	105.9409	105.9409	5.0300e-003	4.2300e-003	107.3273
Total	**0.1092**	**0.4581**	**0.6800**	**2.5800e-003**	**0.1703**	**3.1900e-003**	**0.1735**	**0.0463**	**3.0100e-003**	**0.0493**	**0.0000**	**241.0001**	**241.0001**	**5.5500e-003**	**0.0239**	**248.2667**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6522					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	**0.6540**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5569**

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2024

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	1.9000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0618	0.0618	0.0000	1.0000e-005	0.0647
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	1.8000e-003	1.0700e-003	0.0108	2.0000e-005	2.3700e-003	2.0000e-005	2.3800e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.9619	1.9619	9.0000e-005	8.0000e-005	1.9875
Total	**1.8000e-003**	**1.2600e-003**	**0.0108**	**2.0000e-005**	**2.3900e-003**	**2.0000e-005**	**2.4000e-003**	**6.3000e-004**	**1.0000e-005**	**6.5000e-004**	**0.0000**	**2.0237**	**2.0237**	**9.0000e-005**	**9.0000e-005**	**2.0523**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6522					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	1.2900e-003	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	**0.6525**	**1.2900e-003**	**0.0183**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5568**

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2024

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	1.9000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0618	0.0618	0.0000	1.0000e-005	0.0647
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	1.8000e-003	1.0700e-003	0.0108	2.0000e-005	2.3700e-003	2.0000e-005	2.3800e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.9619	1.9619	9.0000e-005	8.0000e-005	1.9875
Total	**1.8000e-003**	**1.2600e-003**	**0.0108**	**2.0000e-005**	**2.3900e-003**	**2.0000e-005**	**2.4000e-003**	**6.3000e-004**	**1.0000e-005**	**6.5000e-004**	**0.0000**	**2.0237**	**2.0237**	**9.0000e-005**	**9.0000e-005**	**2.0523**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Phase 3 Construction (Mitigated) - Lake County, Annual

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	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.464659	0.064863	0.191817	0.155973	0.051760	0.009603	0.008536	0.006240	0.000416	0.000000	0.037661	0.001217	0.007255
Parking Lot	0.464659	0.064863	0.191817	0.155973	0.051760	0.009603	0.008536	0.006240	0.000416	0.000000	0.037661	0.001217	0.007255

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Regional Shopping Center	0.464659	0.064863	0.191817	0.155973	0.051760	0.009603	0.008536	0.006240	0.000416	0.000000	0.037661	0.001217	0.007255

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	65.2261	65.2261	0.0106	1.2800e-003	65.8711
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	65.2261	65.2261	0.0106	1.2800e-003	65.8711
NaturalGas Mitigated	1.8000e-003	0.0163	0.0137	1.0000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	17.7669	17.7669	3.4000e-004	3.3000e-004	17.8724
NaturalGas Unmitigated	1.8000e-003	0.0163	0.0137	1.0000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	17.7669	17.7669	3.4000e-004	3.3000e-004	17.8724

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	332938	1.8000e-003	0.0163	0.0137	1.0000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	17.7669	17.7669	3.4000e-004	3.3000e-004	17.8724
Total		**1.8000e-003**	**0.0163**	**0.0137**	**1.0000e-004**		**1.2400e-003**	**1.2400e-003**		**1.2400e-003**	**1.2400e-003**	**0.0000**	**17.7669**	**17.7669**	**3.4000e-004**	**3.3000e-004**	**17.8724**

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	332938	1.8000e-003	0.0163	0.0137	1.0000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	17.7669	17.7669	3.4000e-004	3.3000e-004	17.8724
Total		**1.8000e-003**	**0.0163**	**0.0137**	**1.0000e-004**		**1.2400e-003**	**1.2400e-003**		**1.2400e-003**	**1.2400e-003**	**0.0000**	**17.7669**	**17.7669**	**3.4000e-004**	**3.3000e-004**	**17.8724**

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Parking Lot	99708.8	9.2254	1.4900e-003	1.8000e-004	9.3167
Regional Shopping Center	605257	56.0007	9.0600e-003	1.1000e-003	56.5544
Total		**65.2261**	**0.0106**	**1.2800e-003**	**65.8711**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

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
Parking Lot	99708.8	9.2254	1.4900e-003	1.8000e-004	9.3167
Regional Shopping Center	605257	56.0007	9.0600e-003	1.1000e-003	56.5544
Total		**65.2261**	**0.0106**	**1.2800e-003**	**65.8711**

6.0 Area Detail

6.1 Mitigation Measures Area

Phase 3 Construction (Mitigated) - Lake County, Annual

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	tons/yr										MT/yr					
Mitigated	0.2239	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.7000e-004	9.7000e-004	0.0000	0.0000	1.0300e-003
Unmitigated	0.2239	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.7000e-004	9.7000e-004	0.0000	0.0000	1.0300e-003

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	0.0652					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1587					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.7000e-004	9.7000e-004	0.0000	0.0000	1.0300e-003
Total	**0.2239**	**0.0000**	**5.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**9.7000e-004**	**9.7000e-004**	**0.0000**	**0.0000**	**1.0300e-003**

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0652					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1587					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.7000e-004	9.7000e-004	0.0000	0.0000	1.0300e-003
Total	**0.2239**	**0.0000**	**5.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**9.7000e-004**	**9.7000e-004**	**0.0000**	**0.0000**	**1.0300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.5106	0.1129	2.7000e-003	7.1401
Unmitigated	3.5106	0.1129	2.7000e-003	7.1401

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
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	3.454 / 2.11697	3.5106	0.1129	2.7000e-003	7.1401
Total		**3.5106**	**0.1129**	**2.7000e-003**	**7.1401**

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
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	3.454 / 2.11697	3.5106	0.1129	2.7000e-003	7.1401
Total		**3.5106**	**0.1129**	**2.7000e-003**	**7.1401**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	9.9384	0.5873	0.0000	24.6221
Unmitigated	9.9384	0.5873	0.0000	24.6221

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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	48.96	9.9384	0.5873	0.0000	24.6221
Total		**9.9384**	**0.5873**	**0.0000**	**24.6221**

Phase 3 Construction (Mitigated) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	48.96	9.9384	0.5873	0.0000	24.6221
Total		**9.9384**	**0.5873**	**0.0000**	**24.6221**

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

11.0 Vegetation

Full Buildout Operations (2024) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Full Buildout Operations (2024)

Lake County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	1.55	Acre	1.55	67,605.12	0
Parking Lot	12.21	Acre	12.21	531,867.60	0
Fast Food Restaurant with Drive Thru	1.85	1000sqft	0.04	1,850.00	0
High Turnover (Sit Down Restaurant)	3.20	1000sqft	0.07	3,200.00	0
Hotel	70.00	Room	0.34	101,640.00	0
Recreational Swimming Pool	1.00	1000sqft	0.02	1,000.00	0
Convenience Market with Gas Pumps	6.16	1000sqft	0.14	6,157.00	0
Regional Shopping Center	48.48	1000sqft	1.11	48,480.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	67
Climate Zone	1			**Operational Year**	2024
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Full buildout - 2024 operational year

Land Use - Phase 1 - Parcels A & B
Land Uses to represent Phase 1 development based on information provided in the project description, TIA, and site plan.

Construction Phase - Operational run only - zeroed out construction parameters.

Off-road Equipment - Operational run only - zeroed out construction parameters.

Full Buildout Operations (2024) - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT - Operational run only - zeroed out construction parameters.

Grading -

Architectural Coating - Operational run only - zeroed out construction parameters.

Vehicle Trips - Project-specific trip rates, consistent with trip generation rates presented in the Lakeport Shopping Center Traffic Impact Analysis dated April 26, 2021.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Consumer Products - Updated based on 2017 ARB VOC inventory data and 2017 population estimates based on the State of California's Department of Finance demographic projections were used to estimate a statewide VOC EF for 2017.

Construction Off-road Equipment Mitigation -

Area Mitigation - Building code standard (exterior outlets)

Energy Mitigation -

Water Mitigation - Compliance with the Green Building Code Standards and the Water Efficient Land Use Ordinance.

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	1.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	1.00
tblArchitecturalCoating	EF_Parking	250.00	1.00
tblConstructionPhase	NumDays	20.00	1.00
tblConsumerProducts	ROG_EF	2.14E-05	1.62E-05
tblLandUse	LandUseSquareFeet	67,518.00	67,605.12
tblLandUse	LandUseSquareFeet	6,160.00	6,157.00
tblLandUse	LotAcreage	2.33	0.34
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblTripsAndVMT	WorkerTripNumber	63.00	0.00
tblVehicleTrips	ST_TR	624.20	533.44
tblVehicleTrips	ST_TR	616.12	754.59

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	ST_TR	122.40	122.50
tblVehicleTrips	ST_TR	8.19	8.19
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	ST_TR	46.12	46.12
tblVehicleTrips	SU_TR	624.20	533.44
tblVehicleTrips	SU_TR	472.58	754.59
tblVehicleTrips	SU_TR	142.64	142.50
tblVehicleTrips	SU_TR	5.95	5.96
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	SU_TR	21.10	21.10
tblVehicleTrips	WD_TR	624.20	533.44
tblVehicleTrips	WD_TR	470.95	754.59
tblVehicleTrips	WD_TR	112.18	112.19
tblVehicleTrips	WD_TR	8.36	8.36
tblVehicleTrips	WD_TR	28.82	0.00
tblVehicleTrips	WD_TR	37.75	37.75

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2022	8.3200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**8.3200e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2022	8.3200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**8.3200e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	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**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	5-1-2022	7-31-2022	0.0119	0.0119
		Highest	0.0119	0.0119

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	0.7240	1.0000e-005	1.3300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5800e-003	2.5800e-003	1.0000e-005	0.0000	2.7500e-003
Energy	0.0165	0.1503	0.1262	9.0000e-004		0.0114	0.0114		0.0114	0.0114	0.0000	325.8742	325.8742	0.0294	6.1800e-003	328.4511
Mobile	4.7961	4.1445	25.5539	0.0318	2.8363	0.0405	2.8768	0.7599	0.0380	0.7978	0.0000	2,935.2741	2,935.2741	0.3813	0.2225	3,011.1159
Waste						0.0000	0.0000		0.0000	0.0000	35.0809	0.0000	35.0809	2.0732	0.0000	86.9114
Water						0.0000	0.0000		0.0000	0.0000	2.3524	4.6229	6.9753	0.2424	5.8000e-003	14.7616
Total	**5.5367**	**4.2948**	**25.6814**	**0.0327**	**2.8363**	**0.0519**	**2.8882**	**0.7599**	**0.0494**	**0.8092**	**37.4333**	**3,265.7738**	**3,303.2071**	**2.7263**	**0.2345**	**3,441.2428**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.7240	1.0000e-005	1.3100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5500e-003	2.5500e-003	1.0000e-005	0.0000	2.7100e-003
Energy	0.0165	0.1503	0.1262	9.0000e-004		0.0114	0.0114		0.0114	0.0114	0.0000	325.8742	325.8742	0.0294	6.1800e-003	328.4511
Mobile	4.7961	4.1445	25.5539	0.0318	2.8363	0.0405	2.8768	0.7599	0.0380	0.7978	0.0000	2,935.2741	2,935.2741	0.3813	0.2225	3,011.1159
Waste						0.0000	0.0000		0.0000	0.0000	35.0809	0.0000	35.0809	2.0732	0.0000	86.9114
Water						0.0000	0.0000		0.0000	0.0000	1.8820	3.6983	5.5803	0.1939	4.6400e-003	11.8093
Total	**5.5367**	**4.2948**	**25.6814**	**0.0327**	**2.8363**	**0.0519**	**2.8882**	**0.7599**	**0.0494**	**0.8092**	**36.9629**	**3,264.8492**	**3,301.8120**	**2.6778**	**0.2333**	**3,438.2904**

	ROG	NOx	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**	**1.26**	**0.03**	**0.04**	**1.78**	**0.49**	**0.09**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	5/1/2022	5/2/2022	5	1	

Acres of Grading (Site Preparation Phase): 0

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Acres of Grading (Grading Phase): 0

Acres of Paving: 13.76

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 242,141; Non-Residential Outdoor: 80,714; Striped Parking Area: 35,968 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	0.00	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
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 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	8.3200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.3200e-003**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	8.3200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.3200e-003**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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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	tons/yr										MT/yr					
Mitigated	4.7961	4.1445	25.5539	0.0318	2.8363	0.0405	2.8768	0.7599	0.0380	0.7978	0.0000	2,935.2741	2,935.2741	0.3813	0.2225	3,011.1159
Unmitigated	4.7961	4.1445	25.5539	0.0318	2.8363	0.0405	2.8768	0.7599	0.0380	0.7978	0.0000	2,935.2741	2,935.2741	0.3813	0.2225	3,011.1159

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	3,286.00	3,286.00	3286.00	1,762,624	1,762,624
Fast Food Restaurant with Drive Thru	1,396.00	1,396.00	1396.00	1,304,318	1,304,318
High Turnover (Sit Down Restaurant)	359.00	392.00	456.00	438,083	438,083
Hotel	585.00	573.00	417.00	1,062,604	1,062,604
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Regional Shopping Center	1,830.00	2,236.00	1023.00	3,108,109	3,108,109
Total	7,456.00	7,883.00	6,578.00	7,675,737	7,675,737

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
Convenience Market with Gas	9.50	7.30	7.30	0.80	80.20	19.00	14	21	65
Fast Food Restaurant with Drive	9.50	7.30	7.30	2.20	78.80	19.00	29	21	50
High Turnover (Sit Down	9.50	7.30	7.30	8.50	72.50	19.00	37	20	43
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	9.50	7.30	7.30	33.00	48.00	19.00	52	39	9
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.464659	0.064863	0.191817	0.155973	0.051760	0.009603	0.008536	0.006240	0.000416	0.000000	0.037661	0.001217	0.007255
Fast Food Restaurant with Drive Thru	0.464659	0.064863	0.191817	0.155973	0.051760	0.009603	0.008536	0.006240	0.000416	0.000000	0.037661	0.001217	0.007255
High Turnover (Sit Down Restaurant)	0.464659	0.064863	0.191817	0.155973	0.051760	0.009603	0.008536	0.006240	0.000416	0.000000	0.037661	0.001217	0.007255
Hotel	0.464659	0.064863	0.191817	0.155973	0.051760	0.009603	0.008536	0.006240	0.000416	0.000000	0.037661	0.001217	0.007255
Other Asphalt Surfaces	0.464659	0.064863	0.191817	0.155973	0.051760	0.009603	0.008536	0.006240	0.000416	0.000000	0.037661	0.001217	0.007255
Parking Lot	0.464659	0.064863	0.191817	0.155973	0.051760	0.009603	0.008536	0.006240	0.000416	0.000000	0.037661	0.001217	0.007255
Recreational Swimming Pool	0.464659	0.064863	0.191817	0.155973	0.051760	0.009603	0.008536	0.006240	0.000416	0.000000	0.037661	0.001217	0.007255
Regional Shopping Center	0.464659	0.064863	0.191817	0.155973	0.051760	0.009603	0.008536	0.006240	0.000416	0.000000	0.037661	0.001217	0.007255

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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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	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	162.2996	162.2996	0.0263	3.1800e-003	163.9044
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	162.2996	162.2996	0.0263	3.1800e-003	163.9044
NaturalGas Mitigated	0.0165	0.1503	0.1262	9.0000e-004		0.0114	0.0114		0.0114	0.0114	0.0000	163.5746	163.5746	3.1400e-003	3.0000e-003	164.5467
NaturalGas Unmitigated	0.0165	0.1503	0.1262	9.0000e-004		0.0114	0.0114		0.0114	0.0114	0.0000	163.5746	163.5746	3.1400e-003	3.0000e-003	164.5467

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
Convenience Market with Gas Pumps	43961	2.4000e-004	2.1500e-003	1.8100e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3459	2.3459	4.0000e-005	4.0000e-005	2.3599
Fast Food Restaurant with Drive Thru	214471	1.1600e-003	0.0105	8.8300e-003	6.0000e-005		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004	0.0000	11.4450	11.4450	2.2000e-004	2.1000e-004	11.5130
High Turnover (Sit Down Restaurant)	370976	2.0000e-003	0.0182	0.0153	1.1000e-004		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003	0.0000	19.7967	19.7967	3.8000e-004	3.6000e-004	19.9143
Hotel	2.08972e+006	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.5153	111.5153	2.1400e-003	2.0400e-003	112.1780
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	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
Regional Shopping Center	346147	1.8700e-003	0.0170	0.0143	1.0000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	18.4717	18.4717	3.5000e-004	3.4000e-004	18.5815
Total		**0.0165**	**0.1503**	**0.1262**	**8.9000e-004**		**0.0114**	**0.0114**		**0.0114**	**0.0114**	**0.0000**	**163.5746**	**163.5746**	**3.1300e-003**	**2.9900e-003**	**164.5467**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
Convenience Market with Gas Pumps	43961	2.4000e-004	2.1500e-003	1.8100e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3459	2.3459	4.0000e-005	4.0000e-005	2.3599
Fast Food Restaurant with Drive Thru	214471	1.1600e-003	0.0105	8.8300e-003	6.0000e-005		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004	0.0000	11.4450	11.4450	2.2000e-004	2.1000e-004	11.5130
High Turnover (Sit Down Restaurant)	370976	2.0000e-003	0.0182	0.0153	1.1000e-004		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003	0.0000	19.7967	19.7967	3.8000e-004	3.6000e-004	19.9143
Hotel	2.08972e+006	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.5153	111.5153	2.1400e-003	2.0400e-003	112.1780
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	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
Regional Shopping Center	346147	1.8700e-003	0.0170	0.0143	1.0000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	18.4717	18.4717	3.5000e-004	3.4000e-004	18.5815
Total		**0.0165**	**0.1503**	**0.1262**	**8.9000e-004**		**0.0114**	**0.0114**		**0.0114**	**0.0114**	**0.0000**	**163.5746**	**163.5746**	**3.1300e-003**	**2.9900e-003**	**164.5467**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	79917.9	7.3943	1.2000e-003	1.5000e-004	7.4674
Fast Food Restaurant with Drive Thru	44659	4.1320	6.7000e-004	8.0000e-005	4.1729
High Turnover (Sit Down Restaurant)	77248	7.1473	1.1600e-003	1.4000e-004	7.2180
Hotel	736890	68.1798	0.0110	1.3400e-003	68.8540
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	186154	17.2236	2.7900e-003	3.4000e-004	17.3940
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	629270	58.2225	9.4200e-003	1.1400e-003	58.7982
Total		**162.2996**	**0.0263**	**3.1900e-003**	**163.9044**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	79917.9	7.3943	1.2000e-003	1.5000e-004	7.4674
Fast Food Restaurant with Drive Thru	44659	4.1320	6.7000e-004	8.0000e-005	4.1729
High Turnover (Sit Down Restaurant)	77248	7.1473	1.1600e-003	1.4000e-004	7.2180
Hotel	736890	68.1798	0.0110	1.3400e-003	68.8540
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	186154	17.2236	2.7900e-003	3.4000e-004	17.3940
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	629270	58.2225	9.4200e-003	1.1400e-003	58.7982
Total		**162.2996**	**0.0263**	**3.1900e-003**	**163.9044**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

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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	tons/yr										MT/yr					
Mitigated	0.7240	1.0000e-005	1.3100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5500e-003	2.5500e-003	1.0000e-005	0.0000	2.7100e-003
Unmitigated	0.7240	1.0000e-005	1.3300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5800e-003	2.5800e-003	1.0000e-005	0.0000	2.7500e-003

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	0.2079					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5160					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2000e-004	1.0000e-005	1.3300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5800e-003	2.5800e-003	1.0000e-005	0.0000	2.7500e-003
Total	**0.7240**	**1.0000e-005**	**1.3300e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.5800e-003**	**2.5800e-003**	**1.0000e-005**	**0.0000**	**2.7500e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.2079					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5160					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2000e-004	1.0000e-005	1.3100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5500e-003	2.5500e-003	1.0000e-005	0.0000	2.7100e-003
Total	**0.7240**	**1.0000e-005**	**1.3100e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.5500e-003**	**2.5500e-003**	**1.0000e-005**	**0.0000**	**2.7100e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.5803	0.1939	4.6400e-003	11.8093
Unmitigated	6.9753	0.2424	5.8000e-003	14.7616

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.456287 / 0.27966	0.4638	0.0149	3.6000e-004	0.9432
Fast Food Restaurant with Drive Thru	0.561537 / 0.0358428	0.4709	0.0184	4.4000e-004	1.0600
High Turnover (Sit Down Restaurant)	0.971308 / 0.0619984	0.8145	0.0317	7.6000e-004	1.8335
Hotel	1.77567 / 0.197297	1.5162	0.0580	1.3800e-003	3.3793
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.0591431 / 0.036249	0.0601	1.9300e-003	5.0000e-005	0.1223
Regional Shopping Center	3.59104 / 2.20096	3.6499	0.1174	2.8100e-003	7.4234
Total		**6.9753**	**0.2424**	**5.8000e-003**	**14.7616**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.365029 / 0.223728	0.3710	0.0119	2.9000e-004	0.7546
Fast Food Restaurant with Drive Thru	0.44923 / 0.0286742	0.3767	0.0147	3.5000e-004	0.8480
High Turnover (Sit Down Restaurant)	0.777046 / 0.0495987	0.6516	0.0254	6.1000e-004	1.4668
Hotel	1.42054 / 0.157838	1.2130	0.0464	1.1100e-003	2.7034
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.0473145 / 0.0289992	0.0481	1.5500e-003	4.0000e-005	0.0978
Regional Shopping Center	2.87283 / 1.76077	2.9199	0.0939	2.2500e-003	5.9387
Total		**5.5803**	**0.1939**	**4.6500e-003**	**11.8093**

8.0 Waste Detail

8.1 Mitigation Measures Waste

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	35.0809	2.0732	0.0000	86.9114
Unmitigated	35.0809	2.0732	0.0000	86.9114

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market with Gas Pumps	18.51	3.7574	0.2221	0.0000	9.3087
Fast Food Restaurant with Drive Thru	21.31	4.3257	0.2556	0.0000	10.7168
High Turnover (Sit Down Restaurant)	38.08	7.7299	0.4568	0.0000	19.1505
Hotel	38.32	7.7786	0.4597	0.0000	19.2712
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	5.7	1.1571	0.0684	0.0000	2.8665
Regional Shopping Center	50.9	10.3322	0.6106	0.0000	25.5977
Total		**35.0809**	**2.0732**	**0.0000**	**86.9115**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market with Gas Pumps	18.51	3.7574	0.2221	0.0000	9.3087
Fast Food Restaurant with Drive Thru	21.31	4.3257	0.2556	0.0000	10.7168
High Turnover (Sit Down Restaurant)	38.08	7.7299	0.4568	0.0000	19.1505
Hotel	38.32	7.7786	0.4597	0.0000	19.2712
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	5.7	1.1571	0.0684	0.0000	2.8665
Regional Shopping Center	50.9	10.3322	0.6106	0.0000	25.5977
Total		**35.0809**	**2.0732**	**0.0000**	**86.9115**

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Project Operations—2030 Operations

Lake County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	1.55	Acre	1.55	67,605.12	0
Parking Lot	12.21	Acre	12.21	531,867.60	0
Fast Food Restaurant with Drive Thru	1.85	1000sqft	0.04	1,850.00	0
High Turnover (Sit Down Restaurant)	3.20	1000sqft	0.07	3,200.00	0
Hotel	70.00	Room	0.34	101,640.00	0
Recreational Swimming Pool	1.00	1000sqft	0.02	1,000.00	0
Convenience Market with Gas Pumps	6.16	1000sqft	0.14	6,157.00	0
Regional Shopping Center	48.48	1000sqft	1.11	48,480.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	67
Climate Zone	1			**Operational Year**	2030
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	191	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Full buildout - 2030 operational year scenario
CO2 intensity factor adjusted based on Renewable Energy Portfolio and PG&E's 2020 Corporate Responsibility and Sustainability Report.

Land Use - Phase 1 - Parcels A & B
Land Uses to represent Phase 1 development based on information provided in the project description, TIA, and site plan.

Construction Phase - Operational run only - zeroed out construction parameters.

Off-road Equipment - Operational run only - zeroed out construction parameters.

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT - Operational run only - zeroed out construction parameters.

Grading -

Architectural Coating - Operational run only - zeroed out construction parameters.

Vehicle Trips - Project-specific trip rates, consistent with trip generation rates presented in the Lakeport Shopping Center Traffic Impact Analysis dated April 26, 2021.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Consumer Products - Updated based on 2017 ARB VOC inventory data and 2017 population estimates based on the State of California's Department of Finance demographic projections were used to estimate a statewide VOC EF for 2017.

Construction Off-road Equipment Mitigation -

Area Mitigation - Building code standard (exterior outlets)

Energy Mitigation -

Water Mitigation - Compliance with the Green Building Code Standards and the Water Efficient Land Use Ordinance.

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	1.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	1.00
tblArchitecturalCoating	EF_Parking	250.00	1.00
tblConstructionPhase	NumDays	20.00	1.00
tblConsumerProducts	ROG_EF	2.14E-05	1.62E-05
tblLandUse	LandUseSquareFeet	67,518.00	67,605.12
tblLandUse	LandUseSquareFeet	6,160.00	6,157.00
tblLandUse	LotAcreage	2.33	0.34
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	203.98	191
tblTripsAndVMT	WorkerTripNumber	63.00	0.00
tblVehicleTrips	ST_TR	624.20	533.44

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	ST_TR	616.12	754.59
tblVehicleTrips	ST_TR	122.40	122.50
tblVehicleTrips	ST_TR	8.19	8.19
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	ST_TR	46.12	46.12
tblVehicleTrips	SU_TR	624.20	533.44
tblVehicleTrips	SU_TR	472.58	754.59
tblVehicleTrips	SU_TR	142.64	142.50
tblVehicleTrips	SU_TR	5.95	5.96
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	SU_TR	21.10	21.10
tblVehicleTrips	WD_TR	624.20	533.44
tblVehicleTrips	WD_TR	470.95	754.59
tblVehicleTrips	WD_TR	112.18	112.19
tblVehicleTrips	WD_TR	8.36	8.36
tblVehicleTrips	WD_TR	28.82	0.00
tblVehicleTrips	WD_TR	37.75	37.75

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2022	8.3200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**8.3200e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2022	8.3200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**8.3200e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	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**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	5-1-2022	7-31-2022	0.0119	0.0119
		Highest	0.0119	0.0119

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	0.7240	1.0000e-005	1.3200e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5800e-003	2.5800e-003	1.0000e-005	0.0000	2.7500e-003
Energy	0.0165	0.1503	0.1262	9.0000e-004		0.0114	0.0114		0.0114	0.0114	0.0000	315.5465	315.5465	0.0294	6.1800e-003	318.1234
Mobile	3.5285	2.5415	18.7270	0.0262	2.8272	0.0263	2.8534	0.7560	0.0246	0.7806	0.0000	2,410.8008	2,410.8008	0.2679	0.1630	2,466.0558
Waste						0.0000	0.0000		0.0000	0.0000	35.0809	0.0000	35.0809	2.0732	0.0000	86.9114
Water						0.0000	0.0000		0.0000	0.0000	2.3524	4.3287	6.6812	0.2424	5.8000e-003	14.4674
Total	**4.2690**	**2.6918**	**18.8545**	**0.0271**	**2.8272**	**0.0377**	**2.8648**	**0.7560**	**0.0360**	**0.7920**	**37.4333**	**2,730.6786**	**2,768.1120**	**2.6129**	**0.1749**	**2,885.5608**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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	0.7240	1.0000e-005	1.3000e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5500e-003	2.5500e-003	1.0000e-005	0.0000	2.7100e-003
Energy	0.0165	0.1503	0.1262	9.0000e-004		0.0114	0.0114		0.0114	0.0114	0.0000	315.5465	315.5465	0.0294	6.1800e-003	318.1234
Mobile	3.5285	2.5415	18.7270	0.0262	2.8272	0.0263	2.8534	0.7560	0.0246	0.7806	0.0000	2,410.8008	2,410.8008	0.2679	0.1630	2,466.0558
Waste						0.0000	0.0000		0.0000	0.0000	35.0809	0.0000	35.0809	2.0732	0.0000	86.9114
Water						0.0000	0.0000		0.0000	0.0000	1.8820	3.4630	5.3449	0.1939	4.6400e-003	11.5740
Total	**4.2690**	**2.6918**	**18.8545**	**0.0271**	**2.8272**	**0.0377**	**2.8648**	**0.7560**	**0.0360**	**0.7920**	**36.9629**	**2,729.8129**	**2,766.7757**	**2.5644**	**0.1738**	**2,882.6672**

	ROG	NOx	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**	**1.26**	**0.03**	**0.05**	**1.86**	**0.66**	**0.10**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	5/1/2022	5/2/2022	5	1	

Acres of Grading (Site Preparation Phase): 0

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Acres of Grading (Grading Phase): 0

Acres of Paving: 13.76

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 242,141; Non-Residential Outdoor: 80,714; Striped Parking Area: 35,968 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	0.00	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
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 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	8.3200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.3200e-003**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	8.3200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.3200e-003**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive 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	3.5285	2.5415	18.7270	0.0262	2.8272	0.0263	2.8534	0.7560	0.0246	0.7806	0.0000	2,410.8008	2,410.8008	0.2679	0.1630	2,466.0558
Unmitigated	3.5285	2.5415	18.7270	0.0262	2.8272	0.0263	2.8534	0.7560	0.0246	0.7806	0.0000	2,410.8008	2,410.8008	0.2679	0.1630	2,466.0558

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	3,286.00	3,286.00	3286.00	1,762,624	1,762,624
Fast Food Restaurant with Drive Thru	1,396.00	1,396.00	1396.00	1,304,318	1,304,318
High Turnover (Sit Down Restaurant)	359.00	392.00	456.00	438,083	438,083
Hotel	585.00	573.00	417.00	1,062,604	1,062,604
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Regional Shopping Center	1,830.00	2,236.00	1023.00	3,108,109	3,108,109
Total	7,456.00	7,883.00	6,578.00	7,675,737	7,675,737

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
Convenience Market with Gas	9.50	7.30	7.30	0.80	80.20	19.00	14	21	65
Fast Food Restaurant with Drive	9.50	7.30	7.30	2.20	78.80	19.00	29	21	50
High Turnover (Sit Down	9.50	7.30	7.30	8.50	72.50	19.00	37	20	43
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	9.50	7.30	7.30	33.00	48.00	19.00	52	39	9
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market with Gas Pumps	0.508566	0.057418	0.193286	0.142603	0.037830	0.007419	0.007502	0.005498	0.000364	0.000000	0.034037	0.001164	0.004312
Fast Food Restaurant with Drive Thru	0.508566	0.057418	0.193286	0.142603	0.037830	0.007419	0.007502	0.005498	0.000364	0.000000	0.034037	0.001164	0.004312
High Turnover (Sit Down Restaurant)	0.508566	0.057418	0.193286	0.142603	0.037830	0.007419	0.007502	0.005498	0.000364	0.000000	0.034037	0.001164	0.004312
Hotel	0.508566	0.057418	0.193286	0.142603	0.037830	0.007419	0.007502	0.005498	0.000364	0.000000	0.034037	0.001164	0.004312
Other Asphalt Surfaces	0.508566	0.057418	0.193286	0.142603	0.037830	0.007419	0.007502	0.005498	0.000364	0.000000	0.034037	0.001164	0.004312
Parking Lot	0.508566	0.057418	0.193286	0.142603	0.037830	0.007419	0.007502	0.005498	0.000364	0.000000	0.034037	0.001164	0.004312
Recreational Swimming Pool	0.508566	0.057418	0.193286	0.142603	0.037830	0.007419	0.007502	0.005498	0.000364	0.000000	0.034037	0.001164	0.004312
Regional Shopping Center	0.508566	0.057418	0.193286	0.142603	0.037830	0.007419	0.007502	0.005498	0.000364	0.000000	0.034037	0.001164	0.004312

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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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	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	151.9718	151.9718	0.0263	3.1800e-003	153.5767
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	151.9718	151.9718	0.0263	3.1800e-003	153.5767
NaturalGas Mitigated	0.0165	0.1503	0.1262	9.0000e-004		0.0114	0.0114		0.0114	0.0114	0.0000	163.5746	163.5746	3.1400e-003	3.0000e-003	164.5467
NaturalGas Unmitigated	0.0165	0.1503	0.1262	9.0000e-004		0.0114	0.0114		0.0114	0.0114	0.0000	163.5746	163.5746	3.1400e-003	3.0000e-003	164.5467

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
Convenience Market with Gas Pumps	43961	2.4000e-004	2.1500e-003	1.8100e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3459	2.3459	4.0000e-005	4.0000e-005	2.3599
Fast Food Restaurant with Drive Thru	214471	1.1600e-003	0.0105	8.8300e-003	6.0000e-005		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004	0.0000	11.4450	11.4450	2.2000e-004	2.1000e-004	11.5130
High Turnover (Sit Down Restaurant)	370976	2.0000e-003	0.0182	0.0153	1.1000e-004		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003	0.0000	19.7967	19.7967	3.8000e-004	3.6000e-004	19.9143
Hotel	2.08972e+006	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.5153	111.5153	2.1400e-003	2.0400e-003	112.1780
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	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
Regional Shopping Center	346147	1.8700e-003	0.0170	0.0143	1.0000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	18.4717	18.4717	3.5000e-004	3.4000e-004	18.5815
Total		**0.0165**	**0.1503**	**0.1262**	**8.9000e-004**		**0.0114**	**0.0114**		**0.0114**	**0.0114**	**0.0000**	**163.5746**	**163.5746**	**3.1300e-003**	**2.9900e-003**	**164.5467**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
Convenience Market with Gas Pumps	43961	2.4000e-004	2.1500e-003	1.8100e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3459	2.3459	4.0000e-005	4.0000e-005	2.3599
Fast Food Restaurant with Drive Thru	214471	1.1600e-003	0.0105	8.8300e-003	6.0000e-005		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004	0.0000	11.4450	11.4450	2.2000e-004	2.1000e-004	11.5130
High Turnover (Sit Down Restaurant)	370976	2.0000e-003	0.0182	0.0153	1.1000e-004		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003	0.0000	19.7967	19.7967	3.8000e-004	3.6000e-004	19.9143
Hotel	2.08972e+006	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.5153	111.5153	2.1400e-003	2.0400e-003	112.1780
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	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
Regional Shopping Center	346147	1.8700e-003	0.0170	0.0143	1.0000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	18.4717	18.4717	3.5000e-004	3.4000e-004	18.5815
Total		**0.0165**	**0.1503**	**0.1262**	**8.9000e-004**		**0.0114**	**0.0114**		**0.0114**	**0.0114**	**0.0000**	**163.5746**	**163.5746**	**3.1300e-003**	**2.9900e-003**	**164.5467**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	79917.9	6.9238	1.2000e-003	1.5000e-004	6.9969
Fast Food Restaurant with Drive Thru	44659	3.8691	6.7000e-004	8.0000e-005	3.9099
High Turnover (Sit Down Restaurant)	77248	6.6925	1.1600e-003	1.4000e-004	6.7631
Hotel	736890	63.8413	0.0110	1.3400e-003	64.5155
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	186154	16.1276	2.7900e-003	3.4000e-004	16.2980
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	629270	54.5176	9.4200e-003	1.1400e-003	55.0933
Total		**151.9718**	**0.0263**	**3.1900e-003**	**153.5767**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market with Gas Pumps	79917.9	6.9238	1.2000e-003	1.5000e-004	6.9969
Fast Food Restaurant with Drive Thru	44659	3.8691	6.7000e-004	8.0000e-005	3.9099
High Turnover (Sit Down Restaurant)	77248	6.6925	1.1600e-003	1.4000e-004	6.7631
Hotel	736890	63.8413	0.0110	1.3400e-003	64.5155
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	186154	16.1276	2.7900e-003	3.4000e-004	16.2980
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	629270	54.5176	9.4200e-003	1.1400e-003	55.0933
Total		**151.9718**	**0.0263**	**3.1900e-003**	**153.5767**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

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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	tons/yr										MT/yr					
Mitigated	0.7240	1.0000e-005	1.3000e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5500e-003	2.5500e-003	1.0000e-005	0.0000	2.7100e-003
Unmitigated	0.7240	1.0000e-005	1.3200e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5800e-003	2.5800e-003	1.0000e-005	0.0000	2.7500e-003

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	0.2079					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5160					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2000e-004	1.0000e-005	1.3200e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5800e-003	2.5800e-003	1.0000e-005	0.0000	2.7500e-003
Total	**0.7240**	**1.0000e-005**	**1.3200e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.5800e-003**	**2.5800e-003**	**1.0000e-005**	**0.0000**	**2.7500e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.2079					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5160					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2000e-004	1.0000e-005	1.3000e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5500e-003	2.5500e-003	1.0000e-005	0.0000	2.7100e-003
Total	**0.7240**	**1.0000e-005**	**1.3000e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.5500e-003**	**2.5500e-003**	**1.0000e-005**	**0.0000**	**2.7100e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Project Operations—2030 Operations - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.3449	0.1939	4.6400e-003	11.5740
Unmitigated	6.6812	0.2424	5.8000e-003	14.4674

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.456287 / 0.27966	0.4435	0.0149	3.6000e-004	0.9229
Fast Food Restaurant with Drive Thru	0.561537 / 0.0358428	0.4523	0.0184	4.4000e-004	1.0414
High Turnover (Sit Down Restaurant)	0.971308 / 0.0619984	0.7823	0.0317	7.6000e-004	1.8013
Hotel	1.77567 / 0.197297	1.4556	0.0580	1.3800e-003	3.3186
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.0591431 / 0.036249	0.0575	1.9300e-003	5.0000e-005	0.1196
Regional Shopping Center	3.59104 / 2.20096	3.4901	0.1174	2.8100e-003	7.2636
Total		**6.6812**	**0.2424**	**5.8000e-003**	**14.4674**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market with Gas Pumps	0.365029 / 0.223728	0.3548	0.0119	2.9000e-004	0.7384
Fast Food Restaurant with Drive Thru	0.44923 / 0.0286742	0.3618	0.0147	3.5000e-004	0.8331
High Turnover (Sit Down Restaurant)	0.777046 / 0.0495987	0.6258	0.0254	6.1000e-004	1.4410
Hotel	1.42054 / 0.157838	1.1645	0.0464	1.1100e-003	2.6549
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.0473145 / 0.0289992	0.0460	1.5500e-003	4.0000e-005	0.0957
Regional Shopping Center	2.87283 / 1.76077	2.7921	0.0939	2.2500e-003	5.8109
Total		**5.3449**	**0.1939**	**4.6500e-003**	**11.5739**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Project Operations—2030 Operations - Lake County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	35.0809	2.0732	0.0000	86.9114
Unmitigated	35.0809	2.0732	0.0000	86.9114

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market with Gas Pumps	18.51	3.7574	0.2221	0.0000	9.3087
Fast Food Restaurant with Drive Thru	21.31	4.3257	0.2556	0.0000	10.7168
High Turnover (Sit Down Restaurant)	38.08	7.7299	0.4568	0.0000	19.1505
Hotel	38.32	7.7786	0.4597	0.0000	19.2712
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	5.7	1.1571	0.0684	0.0000	2.8665
Regional Shopping Center	50.9	10.3322	0.6106	0.0000	25.5977
Total		**35.0809**	**2.0732**	**0.0000**	**86.9115**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market with Gas Pumps	18.51	3.7574	0.2221	0.0000	9.3087
Fast Food Restaurant with Drive Thru	21.31	4.3257	0.2556	0.0000	10.7168
High Turnover (Sit Down Restaurant)	38.08	7.7299	0.4568	0.0000	19.1505
Hotel	38.32	7.7786	0.4597	0.0000	19.2712
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	5.7	1.1571	0.0684	0.0000	2.8665
Regional Shopping Center	50.9	10.3322	0.6106	0.0000	25.5977
Total		**35.0809**	**2.0732**	**0.0000**	**86.9115**

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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

ATTACHMENT B

Construction and Operations Health Risk Assessment

Health Risk Assessment

Lakeport Shopping Center Project

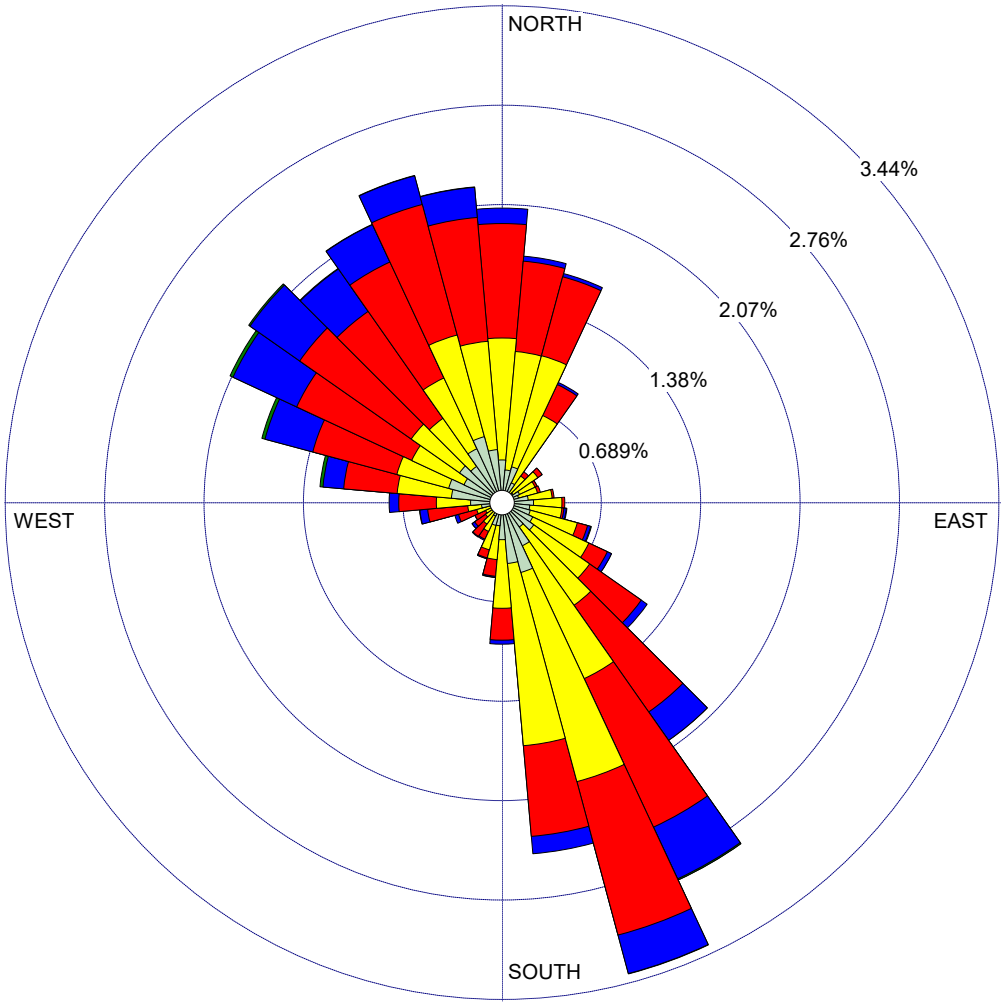
Parameters and Supporting Information

WIND ROSE PLOT:

Wind Rose - Station #23275 (Blowing From)

DISPLAY:

Wind Speed
Direction (blowing from)



WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 52.79%

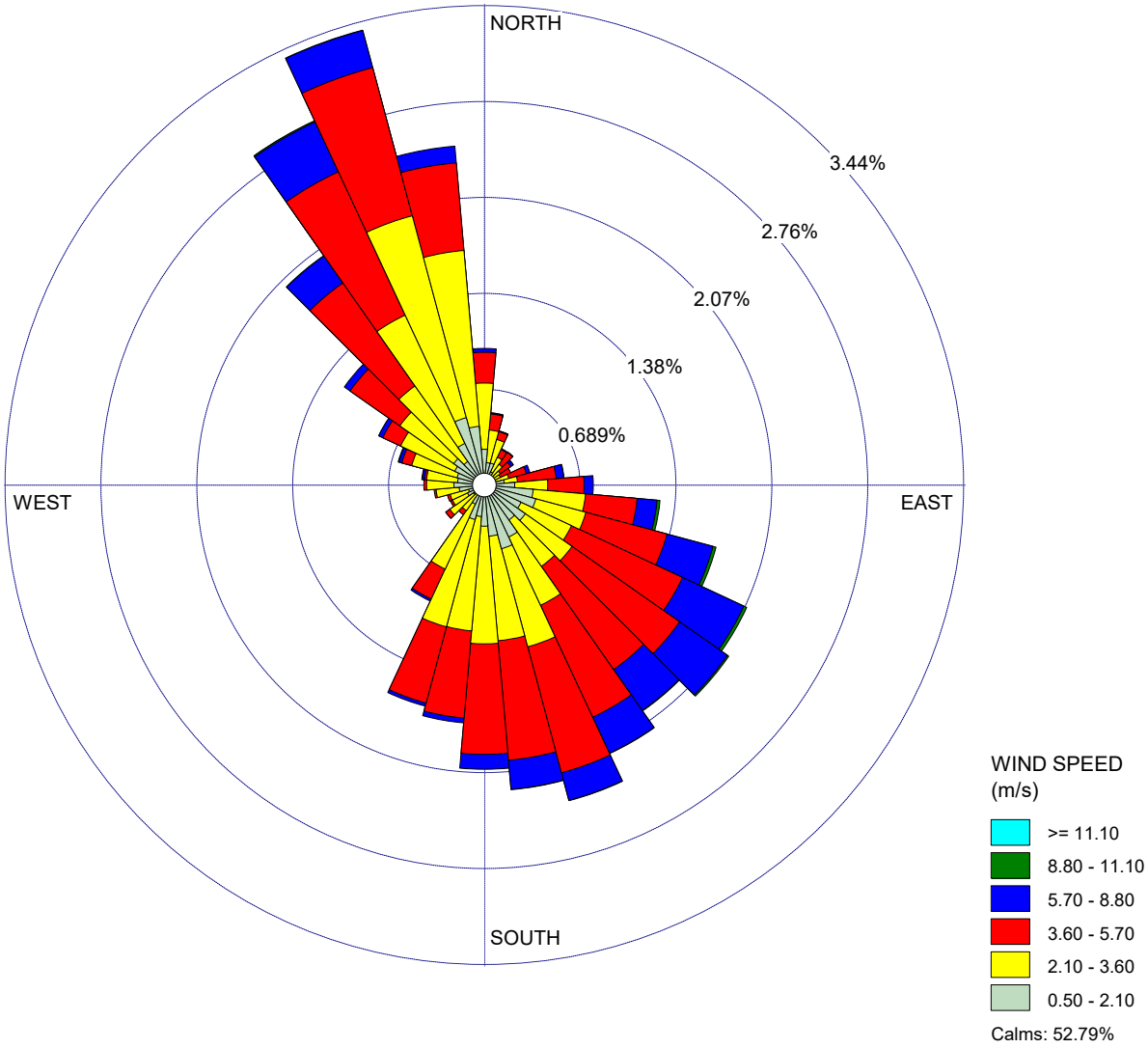
COMMENTS:	DATA PERIOD: **Start Date: 1/1/2009 - 00:00** **End Date: 1/2/2014 - 23:59**		
	CALM WINDS: **52.79%**	TOTAL COUNT: **41851 hrs.**	
	AVG. WIND SPEED: **1.58 m/s**	DATE: **10/11/2021**	PROJECT NO.:

WIND ROSE PLOT:

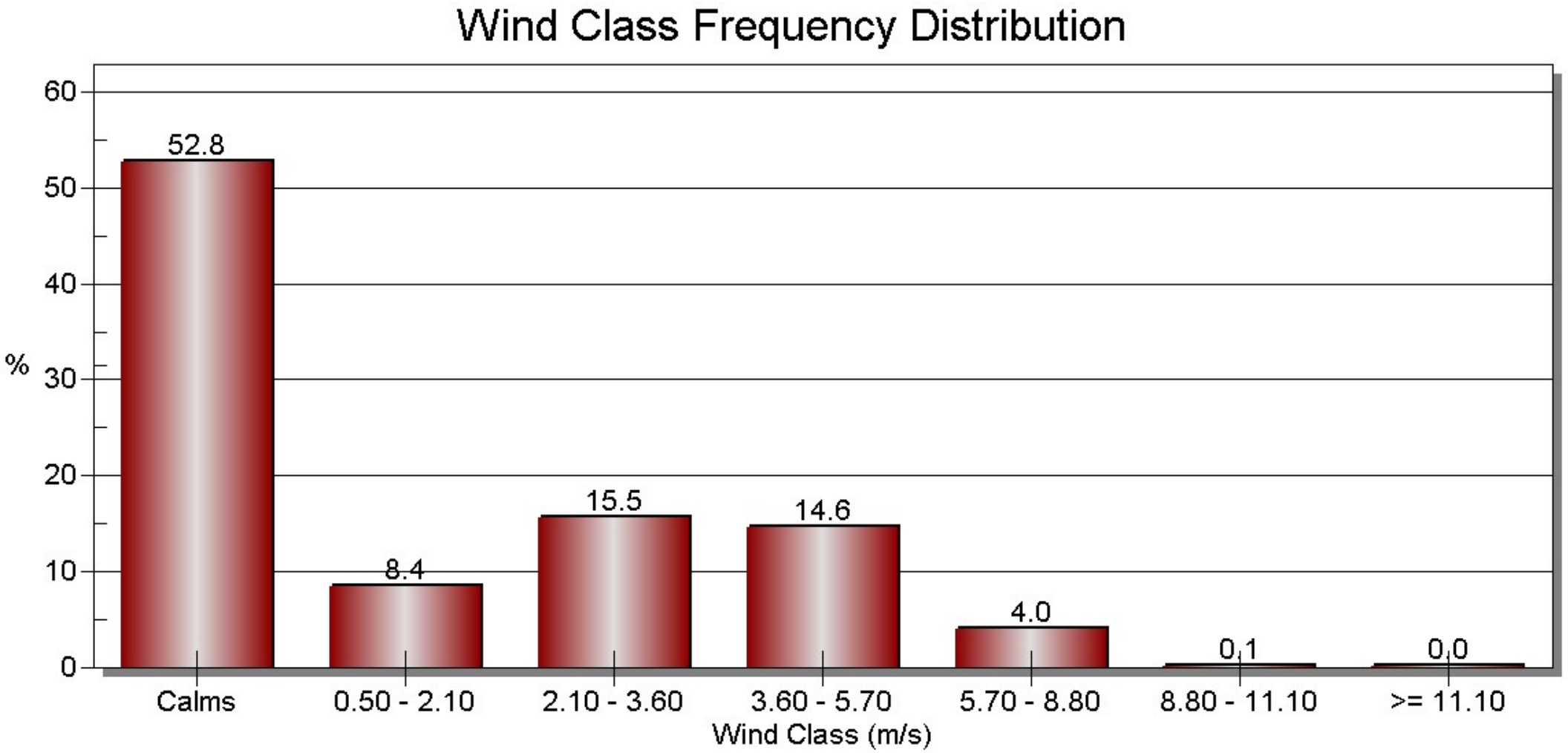
Wind Rose - Station #23275 (Blowing From)

DISPLAY:

Wind Speed
Flow Vector (blowing to)



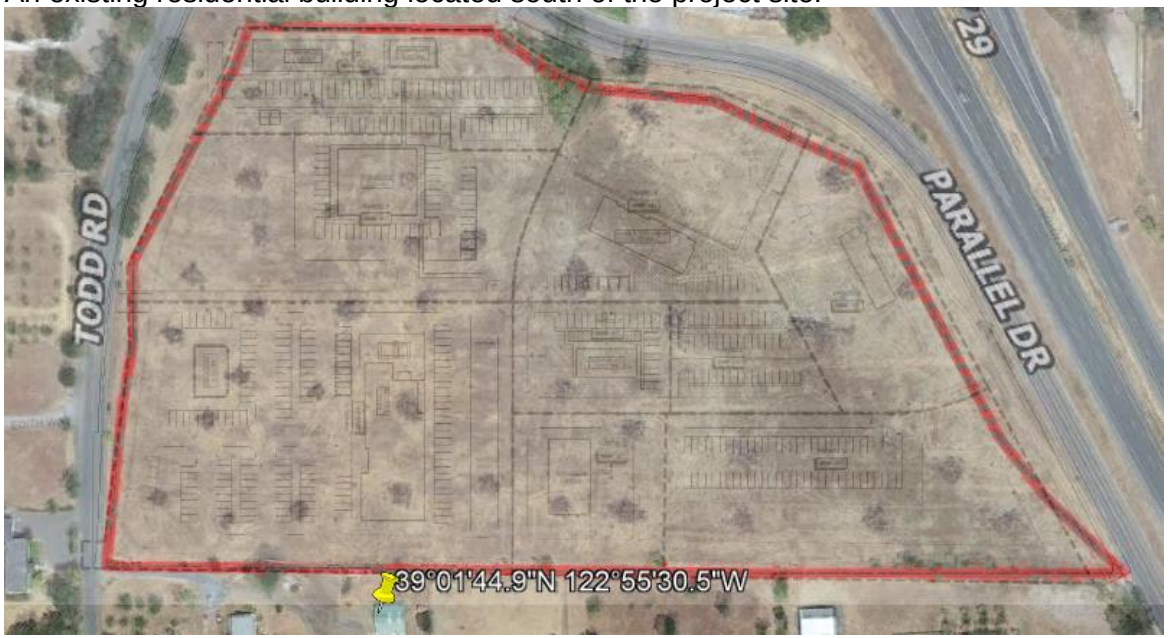
COMMENTS:	DATA PERIOD: **Start Date: 1/1/2009 - 00:00** **End Date: 1/2/2014 - 23:59**		
	CALM WINDS: **52.79%**	TOTAL COUNT: **41851 hrs.**	
	AVG. WIND SPEED: **1.58 m/s**	DATE: **10/11/2021**	PROJECT NO.:

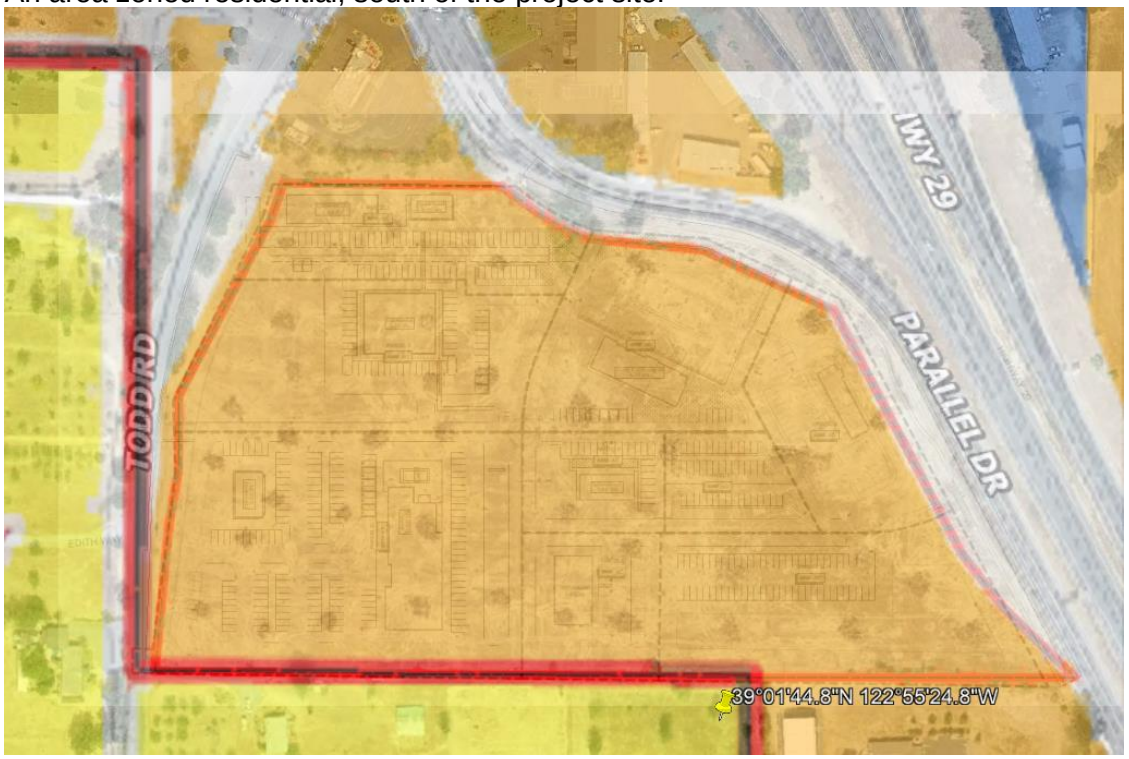

Wind Class Frequency Distribution
60
50
40
30
20
10
0
%
52.8
8.4
15.5
14.6
4.0
0.1
0.0
Calms
0.50 - 2.10
2.10 - 3.60
3.60 - 5.70
5.70 - 8.80
8.80 - 11.10
>= 11.10
Wind Class (m/s)

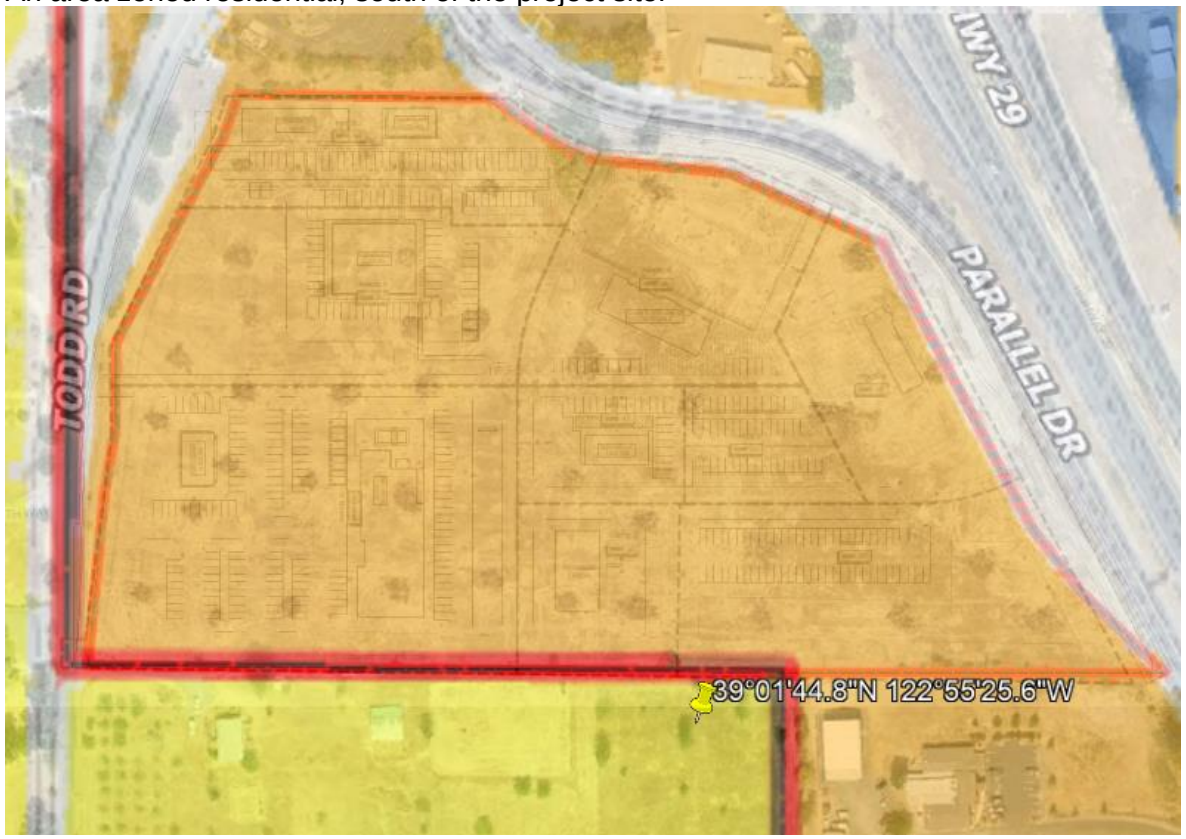

Project Site with 1,000 Foot Boundary
Legend
1,000 Foot Boundary
Lakeport Blvd
Westside Park Rd
Parallel Dr
Broten Ct
TODD RD
Todd Rd
PARALLEL DR
29
S Main St
Todd Rd
Peckham Ct
N
1000 ft
Google Earth

Maximally Exposed Individual Receptor (MEIR) in Each Scenario Analyzed

Area/Scenario	Coordinates of MEIR (UTM)	Coordinates of MEIR (Latitude, Longitude)	Description of Maximum Impacted Sensitive Receptor
Phase 1 Construction	506655.11, 4320009.77	39°01'44.8"N 122°55'23.2"W	Hospice – conservatively assessed as a residential receptor 

Phase 2 Construction	506480.42, 4320011.71	39°01'44.9"N 122°55'30.5"W	An existing residential building located south of the project site. 

Phase 3 Construction	506616.29, 4320010.20	39°01'44.8"N 122°55'24.8"W	An area zoned residential, south of the project site. 

Project Operations	506596.88, 4320010.42	39°01'44.8"N 122°55'25.6"W	An area zoned residential, south of the project site. 

OEHHA Cancer Risk Methodology

Cancer Risk = DPM x CPF x ASF x DBR x ED x EF x TAH x AF/ AT

Cancer Risk = probability of an individual contracting cancer out of a population of 1 million people over a lifetime exposure duration of 30 years

DPM = long-term average concentration of diesel PM as predicted by the air dispersion model (ug/m3)

CPF = cancer potency factor for DPM (mg.ke-day)

ASF = age sensitivity factors that are dependent on the age of the exposed individual (unitless)

DBR = daily breathing rates that are dependent on the age of the exposed individual (liters/kg-day)

ED = exposure duration (years)

EF = exposure frequency (days/year)

TAH = time at home factors that are dependent on the age of the exposed individual (%)

AT = averaging time over the lifetime of an individual (days)

AF = adjustment factor for workers and students (unitless)

Cancer Risk Equation Values as recommended by the California Office of Environmental Health Hazards Assessment

Health Risk Assessment

Lakeport Shopping Center Project

Unmitigated Construction Scenario

Concentrations and Health Risks

Health Risk Assessment

Construction Health Risk Assessment

Phase 1 – Unmitigated

Emissions and Concentrations

Lakeport Shopping Center Project

Phase 1

Estimation of Annual Onsite Construction Emissions

Start of Construction	5/1/2022		
End of Construction	11/1/2022		**Total**
Number of Days	184		184
Number of Hours	4,416		4,416
Number of Years	0.50		0.50
Size of the construction area source:	**12,131.4**	**sq-meters**	

CalEEMod Run	Year	On-site Construction Activity	Unmitigated On-site DPM (tons)
Phase 1	2022	On-site Site Preparation	0.00403
Phase 1	2022	On-site Grading	0.00376
Phase 1	2022	On-site Paving	0.00439
Phase 1	2022	On-site Building Construction	0.09320
Phase 1	2022	On-site Architectural Coating	0.00074

Total Unmitigated DPM (On-site)	1.061E-01	tons
Average Emission*	9.636E+04	grams
	6.061E-03	grams/sec
	4.996E-07	grams/m2/sec

*Size of the construction area source accounted for in AERMOD.

Lakeport Shopping Center Project

Phase 1

Estimation of Annual Offsite Construction DPM Emissions (Unmitigated)

Start of Construction		5/1/2022		
End of Construction		11/1/2022		**Total**
Number of Days		184		184
Number of Hours		4,416		4416

	Phase 1 (2022)	Phase 1 (2022)	Phase 1 (2022)	Phase 1 (2022)	Phase 1 (2022)
Construction Trip Type	Site Preparation	Grading	Paving	Building Construction	Architectural Coating
Haul Truck	0.00001	0.00001	0.00002	0.00005	0.00000
Vendor Truck	0.00000	0.00000	0.00003	0.00071	0.00000
Worker	0.00000	0.00000	0.00001	0.00015	0.00001
Total	0.00001	0.00001	0.00006	0.00091	0.00001

	Haul Truck (tons)	**Vendor Truck (tons)**	**Worker (tons)**	**Total (tons)**
Total DPM	9.000E-05	7.400E-04	1.700E-04	1.000E-03

Average Emissions			
Grams	8.172E+01	6.719E+02	1.544E+02
Grams/sec	5.140E-06	4.227E-05	9.710E-06
Default Distance*	20	7.3	10.8

*Default Vehicle Travel Distance in CalEEMod

Vehicle Travel Distances in the Construction HRA (miles)			
Road Segment 1 (mi)	0.43	0.43	0.43
Road Segment 2 (mi)	0.45	0.45	0.45
Road Segment 3 (mi)	0.53	0.53	0.53
Road Segment 4 (mi)	0.54	0.54	0.54

Trip Distribution (percent)			
Road Segment 1	25.0%	25.0%	25.0%
Road Segment 2	25.0%	25.0%	25.0%
Road Segment 3	25.0%	25.0%	25.0%
Road Segment 4	25.0%	25.0%	25.0%

Total Average Offsite Vehicle Emissions Along Travel Distance (g/sec)				**Total**
Road Segment 1	2.733E-08	6.156E-07	9.559E-08	7.385E-07
Road Segment 2	2.872E-08	6.470E-07	1.005E-07	7.762E-07
Road Segment 3	3.418E-08	7.699E-07	1.195E-07	9.236E-07
Road Segment 4	3.471E-08	7.818E-07	1.214E-07	9.379E-07

Maximum DPM (ug/m3)	UTM X	UTM Y
1.3100E-01	506655.11	4320009.77

* AERMOD (19191): G:\LSC_HRA\Phase 1\Phase 1.isc 10/10/2021
* AERMET (14134): 8:09:05 PM
* MODELING OPTIONS USED: Reg DFAULT CONCELEV FLGPOL URBAN
* PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 652 RECEPTORS.
* FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM YRS	NET ID
506703.91	4320437.76	0.00949	420.88	432.12	1.5	ANNUAL	ALL	5	
506676.87	4320495.35	0.00897	423.66	431.49	1.5	ANNUAL	ALL	5	
506701.34	4320484.15	0.00721	424.59	431.49	1.5	ANNUAL	ALL	5	
506724.35	4320469.2	0.00616	423.58	432.12	1.5	ANNUAL	ALL	5	
506717.54	4320558.3	0.00442	428.24	432.02	1.5	ANNUAL	ALL	5	
506691.19	4320565.86	0.00618	420.45	432.12	1.5	ANNUAL	ALL	5	
506742.21	4320547.04	0.00354	431.7	431.7	1.5	ANNUAL	ALL	5	
506765.22	4320532.08	0.00306	432.05	432.05	1.5	ANNUAL	ALL	5	
506718.35	4320369.19	0.01192	418.53	418.53	1.5	ANNUAL	ALL	5	
506747.68	4320355.39	0.0091	418.67	445.92	1.5	ANNUAL	ALL	5	
506704.99	4320416.93	0.01054	420.06	430.6	1.5	ANNUAL	ALL	5	
506734.32	4320403.12	0.00819	418.93	432.12	1.5	ANNUAL	ALL	5	
506763.65	4320389.32	0.00654	418.46	445.92	1.5	ANNUAL	ALL	5	
506720.96	4320450.86	0.00735	421.47	432.12	1.5	ANNUAL	ALL	5	
506750.29	4320437.05	0.00593	419.57	432.12	1.5	ANNUAL	ALL	5	
506779.62	4320423.25	0.00489	418.64	445.92	1.5	ANNUAL	ALL	5	
506721.34	4320488.78	0.00568	425.73	432.12	1.5	ANNUAL	ALL	5	
506751.59	4320477.88	0.00442	426.13	432.12	1.5	ANNUAL	ALL	5	
506768.87	4320552.65	0.00283	431.71	432.04	1.5	ANNUAL	ALL	5	
506757.91	4320246.35	0.01868	419.21	648.69	1.5	ANNUAL	ALL	5	
506776.07	4320220.81	0.02057	419.9	445.92	1.5	ANNUAL	ALL	5	
506774.97	4320254.45	0.01429	420.15	445.92	1.5	ANNUAL	ALL	5	
506754.47	4320274.47	0.01472	419.27	445.92	1.5	ANNUAL	ALL	5	
506755.14	4320298.58	0.01213	418.81	445.92	1.5	ANNUAL	ALL	5	
507069.29	4320032.11	0.00824	411.74	445.92	1.5	ANNUAL	ALL	5	
507144.29	4320032.11	0.00543	408.5	445.92	1.5	ANNUAL	ALL	5	
507136.82	4320049.44	0.00531	410.64	445.92	1.5	ANNUAL	ALL	5	
507129.35	4320066.77	0.00517	412.6	445.92	1.5	ANNUAL	ALL	5	
507121.88	4320084.11	0.005	415.74	445.92	1.5	ANNUAL	ALL	5	
507114.41	4320101.44	0.00479	418.21	445.92	1.5	ANNUAL	ALL	5	
507106.94	4320118.77	0.00451	419.88	445.92	1.5	ANNUAL	ALL	5	
507099.47	4320136.11	0.00425	421.37	445.92	1.5	ANNUAL	ALL	5	
507092	4320153.44	0.00398	423.61	445.92	1.5	ANNUAL	ALL	5	
507084.53	4320170.77	0.00375	425.39	445.92	1.5	ANNUAL	ALL	5	
507077.06	4320188.11	0.00353	427.1	445.92	1.5	ANNUAL	ALL	5	
507069.59	4320205.44	0.00329	429.72	445.92	1.5	ANNUAL	ALL	5	
507219.29	4320032.11	0.00379	407.19	445.92	1.5	ANNUAL	ALL	5	
507211.82	4320049.45	0.0037	407.27	445.92	1.5	ANNUAL	ALL	5	
507204.34	4320066.79	0.00359	407.4	445.92	1.5	ANNUAL	ALL	5	
507196.87	4320084.13	0.00348	408.03	445.92	1.5	ANNUAL	ALL	5	
507189.39	4320101.47	0.00337	409.32	445.92	1.5	ANNUAL	ALL	5	
507181.92	4320118.82	0.00325	410.51	445.92	1.5	ANNUAL	ALL	5	
507174.45	4320136.16	0.00313	411.8	445.92	1.5	ANNUAL	ALL	5	
507166.97	4320153.5	0.003	413.4	445.92	1.5	ANNUAL	ALL	5	
507159.5	4320170.84	0.00287	414.94	445.92	1.5	ANNUAL	ALL	5	
507152.02	4320188.18	0.00275	416.48	445.92	1.5	ANNUAL	ALL	5	
507144.55	4320205.52	0.00262	417.42	445.92	1.5	ANNUAL	ALL	5	
506837.97	4319876.1	0.0298	411.74	648.69	1.5	ANNUAL	ALL	5	
506712.12	4319999.57	0.12086	414.57	648.69	1.5	ANNUAL	ALL	5	
506715.28	4319990.41	0.10762	414.55	648.69	1.5	ANNUAL	ALL	5	
506716.15	4319971.68	0.08752	414.55	648.69	1.5	ANNUAL	ALL	5	
506717.01	4319952.95	0.07251	414.63	648.69	1.5	ANNUAL	ALL	5	
506717.88	4319934.22	0.06097	414.72	648.69	1.5	ANNUAL	ALL	5	
506718.74	4319915.49	0.0519	414.8	648.69	1.5	ANNUAL	ALL	5	
506790.5	4319906.09	0.04179	413.43	648.69	1.5	ANNUAL	ALL	5	
506756.99	4319898.49	0.0435	414.02	648.69	1.5	ANNUAL	ALL	5	
506738.3	4319897.62	0.0444	414.15	648.69	1.5	ANNUAL	ALL	5	
506719.61	4319896.76	0.04457	414.33	648.69	1.5	ANNUAL	ALL	5	
506810.41	4319896.04	0.03658	412.28	648.69	1.5	ANNUAL	ALL	5	
506776.55	4319880.62	0.03701	413.08	648.69	1.5	ANNUAL	ALL	5	
506757.86	4319879.76	0.03809	413.22	648.69	1.5	ANNUAL	ALL	5	
506739.16	4319878.89	0.03862	413.28	648.69	1.5	ANNUAL	ALL	5	
506720.47	4319878.03	0.0386	413.49	648.69	1.5	ANNUAL	ALL	5	
506794.15	4319850.39	0.02969	411.86	648.69	1.5	ANNUAL	ALL	5	
506825.89	4319864.84	0.02942	411.67	648.69	1.5	ANNUAL	ALL	5	
506759.59	4319842.3	0.02982	412.09	648.69	1.5	ANNUAL	ALL	5	
506740.89	4319841.43	0.02995	412.29	648.69	1.5	ANNUAL	ALL	5	
506722.2	4319840.57	0.02971	412.5	648.69	1.5	ANNUAL	ALL	5	
506796.94	4319813.41	0.02424	411.86	648.69	1.5	ANNUAL	ALL	5	

506813.87	4319821.12	0.02444	411.64	648.69	1.5	ANNUAL	ALL	5
506830.79	4319828.82	0.02436	411.39	648.69	1.5	ANNUAL	ALL	5
506847.72	4319836.53	0.02404	411.17	648.69	1.5	ANNUAL	ALL	5
506780.01	4319805.7	0.02377	411.9	648.69	1.5	ANNUAL	ALL	5
506761.32	4319804.84	0.02394	412.02	648.69	1.5	ANNUAL	ALL	5
506742.62	4319803.97	0.02387	412.19	648.69	1.5	ANNUAL	ALL	5
506723.93	4319803.11	0.02354	412.29	648.69	1.5	ANNUAL	ALL	5
506797.9	4319775.6	0.02003	411.56	648.69	1.5	ANNUAL	ALL	5
506830.21	4319790.31	0.02043	411.21	648.69	1.5	ANNUAL	ALL	5
506862.53	4319805.03	0.02015	410.87	648.69	1.5	ANNUAL	ALL	5
506966.08	4319865.66	0.01675	410.16	648.69	1.5	ANNUAL	ALL	5
506763.05	4319767.38	0.01956	411.79	648.69	1.5	ANNUAL	ALL	5
506744.35	4319766.51	0.01939	412.07	648.69	1.5	ANNUAL	ALL	5
506725.66	4319765.65	0.01904	412.15	648.69	1.5	ANNUAL	ALL	5
506800.4	4319738.49	0.01679	411.43	648.69	1.5	ANNUAL	ALL	5
506817.33	4319746.2	0.01712	411.12	648.69	1.5	ANNUAL	ALL	5
506834.25	4319753.9	0.0173	410.98	648.69	1.5	ANNUAL	ALL	5
506851.18	4319761.61	0.01733	410.81	648.69	1.5	ANNUAL	ALL	5
506868.11	4319769.32	0.01723	410.68	648.69	1.5	ANNUAL	ALL	5
506885.04	4319777.03	0.01702	410.6	648.69	1.5	ANNUAL	ALL	5
506993.52	4319840.54	0.01419	409.87	648.69	1.5	ANNUAL	ALL	5
507000.44	4319857.81	0.0142	409.74	648.69	1.5	ANNUAL	ALL	5
507007.36	4319875.07	0.01411	409.83	648.69	1.5	ANNUAL	ALL	5
507048.87	4319978.66	0.01084	410.72	648.69	1.5	ANNUAL	ALL	5
507055.79	4319995.93	0.00999	410.99	648.69	1.5	ANNUAL	ALL	5
507062.71	4320013.19	0.00912	411.2	445.92	1.5	ANNUAL	ALL	5
506783.47	4319730.78	0.01632	411.72	648.69	1.5	ANNUAL	ALL	5
506764.78	4319729.92	0.01624	411.86	648.69	1.5	ANNUAL	ALL	5
506746.08	4319729.05	0.01602	411.94	648.69	1.5	ANNUAL	ALL	5
506727.39	4319728.19	0.01568	412.1	648.69	1.5	ANNUAL	ALL	5
506803.86	4319663.57	0.01218	411.87	648.69	1.5	ANNUAL	ALL	5
506820.79	4319671.28	0.01251	411.31	648.69	1.5	ANNUAL	ALL	5
506837.71	4319678.98	0.01276	411.4	648.69	1.5	ANNUAL	ALL	5
506854.64	4319686.69	0.01292	411.42	648.69	1.5	ANNUAL	ALL	5
506871.57	4319694.4	0.01298	411.36	648.69	1.5	ANNUAL	ALL	5
506888.5	4319702.11	0.01295	411.07	648.69	1.5	ANNUAL	ALL	5
506905.42	4319709.82	0.01286	410.93	648.69	1.5	ANNUAL	ALL	5
506922.35	4319717.53	0.01269	410.76	648.69	1.5	ANNUAL	ALL	5
507006.99	4319756.07	0.01125	409.92	648.69	1.5	ANNUAL	ALL	5
507023.92	4319763.78	0.01086	409.47	648.69	1.5	ANNUAL	ALL	5
507047.76	4319788.75	0.01055	409.38	648.69	1.5	ANNUAL	ALL	5
507054.68	4319806.01	0.01058	409.45	648.69	1.5	ANNUAL	ALL	5
507061.6	4319823.28	0.01055	409.47	648.69	1.5	ANNUAL	ALL	5
507068.52	4319840.54	0.01044	409.38	648.69	1.5	ANNUAL	ALL	5
507075.44	4319857.81	0.01025	409.19	648.69	1.5	ANNUAL	ALL	5
507082.36	4319875.07	0.00998	408.85	648.69	1.5	ANNUAL	ALL	5
507089.28	4319892.34	0.00963	408.66	648.69	1.5	ANNUAL	ALL	5
507096.2	4319909.6	0.00922	408.51	648.69	1.5	ANNUAL	ALL	5
507103.12	4319926.87	0.00874	408.47	648.69	1.5	ANNUAL	ALL	5
507110.03	4319944.13	0.00822	408.5	648.69	1.5	ANNUAL	ALL	5
507116.95	4319961.4	0.00767	408.54	445.92	1.5	ANNUAL	ALL	5
507123.87	4319978.66	0.0071	408.45	445.92	1.5	ANNUAL	ALL	5
507130.79	4319995.93	0.00654	408.32	445.92	1.5	ANNUAL	ALL	5
507137.71	4320013.19	0.00598	408.43	445.92	1.5	ANNUAL	ALL	5
506786.93	4319655.86	0.01178	412.57	648.69	1.5	ANNUAL	ALL	5
506768.24	4319655	0.01162	412.66	648.69	1.5	ANNUAL	ALL	5
506749.54	4319654.13	0.01139	412.48	648.69	1.5	ANNUAL	ALL	5
506730.85	4319653.27	0.01111	412.96	648.69	1.5	ANNUAL	ALL	5
506807.32	4319588.65	0.00906	421.4	648.69	1.5	ANNUAL	ALL	5
506824.25	4319596.36	0.00937	421.09	648.69	1.5	ANNUAL	ALL	5
506841.17	4319604.06	0.00967	419.7	648.69	1.5	ANNUAL	ALL	5
506858.1	4319611.77	0.00994	417.39	648.69	1.5	ANNUAL	ALL	5
506875.03	4319619.48	0.01006	415.22	648.69	1.5	ANNUAL	ALL	5
506891.96	4319627.19	0.01011	413.58	648.69	1.5	ANNUAL	ALL	5
506908.88	4319634.9	0.01011	412.57	648.69	1.5	ANNUAL	ALL	5
506925.81	4319642.61	0.01006	411.99	648.69	1.5	ANNUAL	ALL	5
506942.74	4319650.31	0.00996	411.32	648.69	1.5	ANNUAL	ALL	5
507044.3	4319696.56	0.00885	409.32	648.69	1.5	ANNUAL	ALL	5
507061.23	4319704.27	0.00861	409.4	648.69	1.5	ANNUAL	ALL	5
507078.16	4319711.98	0.00835	409.48	648.69	1.5	ANNUAL	ALL	5
507102	4319736.95	0.00815	409.58	648.69	1.5	ANNUAL	ALL	5
507108.92	4319754.22	0.00819	409.54	648.69	1.5	ANNUAL	ALL	5
507115.84	4319771.48	0.00818	409.4	648.69	1.5	ANNUAL	ALL	5
507122.76	4319788.75	0.00813	409.31	648.69	1.5	ANNUAL	ALL	5
507129.68	4319806.01	0.00803	409.22	648.69	1.5	ANNUAL	ALL	5
507136.6	4319823.28	0.00788	409.08	648.69	1.5	ANNUAL	ALL	5
507143.52	4319840.54	0.00768	408.99	648.69	1.5	ANNUAL	ALL	5
507150.44	4319857.81	0.00743	408.63	648.69	1.5	ANNUAL	ALL	5
507157.36	4319875.07	0.00714	408.12	648.69	1.5	ANNUAL	ALL	5
507164.28	4319892.34	0.00681	407.93	445.79	1.5	ANNUAL	ALL	5
507171.2	4319909.6	0.00645	407.81	445.88	1.5	ANNUAL	ALL	5
507178.12	4319926.87	0.00607	407.74	445.92	1.5	ANNUAL	ALL	5
507185.03	4319944.13	0.00569	407.67	445.92	1.5	ANNUAL	ALL	5
507191.95	4319961.4	0.00529	407.61	445.92	1.5	ANNUAL	ALL	5

507198.87	4319978.66	0.0049	407.48	445.92	1.5	ANNUAL	ALL	5
507205.79	4319995.93	0.00452	407.32	445.92	1.5	ANNUAL	ALL	5
507212.71	4320013.19	0.00416	407.22	445.92	1.5	ANNUAL	ALL	5
506790.39	4319580.94	0.00871	421.61	648.69	1.5	ANNUAL	ALL	5
506771.7	4319580.08	0.00853	421.65	648.69	1.5	ANNUAL	ALL	5
506753	4319579.21	0.0083	422.3	648.69	1.5	ANNUAL	ALL	5
506734.31	4319578.35	0.00784	424.74	648.69	1.5	ANNUAL	ALL	5
506655.11	4320009.77	0.131	415.49	648.69	1.5	ANNUAL	ALL	5
506635.7	4320009.98	0.11975	416.51	648.69	1.5	ANNUAL	ALL	5
506616.29	4320010.2	0.10658	417.44	648.69	1.5	ANNUAL	ALL	5
506596.88	4320010.42	0.09248	418.06	648.69	1.5	ANNUAL	ALL	5
506577.47	4320010.63	0.07741	419.08	648.69	1.5	ANNUAL	ALL	5
506558.06	4320010.85	0.06241	421.03	648.69	1.5	ANNUAL	ALL	5
506538.65	4320011.06	0.04878	422.45	648.69	1.5	ANNUAL	ALL	5
506519.24	4320011.28	0.03849	423.11	648.69	1.5	ANNUAL	ALL	5
506499.83	4320011.5	0.03039	423.16	648.69	1.5	ANNUAL	ALL	5
506480.42	4320011.71	0.02391	423.21	648.69	1.5	ANNUAL	ALL	5
506693.72	4319990.59	0.11057	414.73	648.69	1.5	ANNUAL	ALL	5
506674.31	4319990.8	0.1087	414.94	648.69	1.5	ANNUAL	ALL	5
506654.9	4319991.02	0.10319	415.38	648.69	1.5	ANNUAL	ALL	5
506635.49	4319991.24	0.09534	416.6	648.69	1.5	ANNUAL	ALL	5
506616.08	4319991.45	0.08556	417.71	648.69	1.5	ANNUAL	ALL	5
506596.67	4319991.67	0.07477	418.13	648.69	1.5	ANNUAL	ALL	5
506577.26	4319991.88	0.06365	418.76	648.69	1.5	ANNUAL	ALL	5
506557.85	4319992.1	0.0526	420.12	648.69	1.5	ANNUAL	ALL	5
506538.44	4319992.31	0.04304	420.96	648.69	1.5	ANNUAL	ALL	5
506519.03	4319992.53	0.03491	421.4	648.69	1.5	ANNUAL	ALL	5
506499.62	4319992.75	0.02807	421.69	648.69	1.5	ANNUAL	ALL	5
506480.21	4319992.96	0.02244	422.04	648.69	1.5	ANNUAL	ALL	5
506693.51	4319971.84	0.08899	414.75	648.69	1.5	ANNUAL	ALL	5
506674.1	4319972.06	0.08733	415.05	648.69	1.5	ANNUAL	ALL	5
506654.69	4319972.27	0.08318	415.46	648.69	1.5	ANNUAL	ALL	5
506635.28	4319972.49	0.07735	416.77	648.69	1.5	ANNUAL	ALL	5
506615.87	4319972.7	0.06996	417.86	648.69	1.5	ANNUAL	ALL	5
506596.46	4319972.92	0.06185	417.99	648.69	1.5	ANNUAL	ALL	5
506577.05	4319973.13	0.05354	418.24	648.69	1.5	ANNUAL	ALL	5
506557.64	4319973.35	0.04532	418.86	648.69	1.5	ANNUAL	ALL	5
506538.23	4319973.57	0.03783	419.45	648.69	1.5	ANNUAL	ALL	5
506518.82	4319973.78	0.03119	420	648.69	1.5	ANNUAL	ALL	5
506499.41	4319974	0.02546	420.53	648.69	1.5	ANNUAL	ALL	5
506480	4319974.21	0.02065	421.06	648.69	1.5	ANNUAL	ALL	5
506693.31	4319953.09	0.07307	414.83	648.69	1.5	ANNUAL	ALL	5
506673.9	4319953.31	0.07154	415.22	648.69	1.5	ANNUAL	ALL	5
506654.49	4319953.52	0.06824	415.5	648.69	1.5	ANNUAL	ALL	5
506635.08	4319953.74	0.06369	416.37	648.69	1.5	ANNUAL	ALL	5
506615.67	4319953.95	0.05808	417.07	648.69	1.5	ANNUAL	ALL	5
506596.26	4319954.17	0.05187	417.2	648.69	1.5	ANNUAL	ALL	5
506576.85	4319954.39	0.04557	417.66	648.69	1.5	ANNUAL	ALL	5
506557.44	4319954.6	0.03908	418.46	648.69	1.5	ANNUAL	ALL	5
506538.03	4319954.82	0.03303	419.14	648.69	1.5	ANNUAL	ALL	5
506518.62	4319955.03	0.02763	419.76	648.69	1.5	ANNUAL	ALL	5
506499.21	4319955.25	0.02291	420.33	648.69	1.5	ANNUAL	ALL	5
506479.8	4319955.46	0.01891	420.76	648.69	1.5	ANNUAL	ALL	5
506693.1	4319934.34	0.06094	414.86	648.69	1.5	ANNUAL	ALL	5
506673.69	4319934.56	0.05952	415.28	648.69	1.5	ANNUAL	ALL	5
506654.28	4319934.77	0.05681	415.39	648.69	1.5	ANNUAL	ALL	5
506634.87	4319934.99	0.05318	415.85	648.69	1.5	ANNUAL	ALL	5
506615.46	4319935.2	0.0488	416.27	648.69	1.5	ANNUAL	ALL	5
506596.05	4319935.42	0.04398	416.53	648.69	1.5	ANNUAL	ALL	5
506576.64	4319935.64	0.03905	417.29	648.69	1.5	ANNUAL	ALL	5
506557.23	4319935.85	0.03392	418.38	648.69	1.5	ANNUAL	ALL	5
506537.82	4319936.07	0.02898	419.17	648.69	1.5	ANNUAL	ALL	5
506518.41	4319936.28	0.02457	419.81	648.69	1.5	ANNUAL	ALL	5
506499	4319936.5	0.02069	420.34	648.69	1.5	ANNUAL	ALL	5
506479.59	4319936.72	0.01734	420.62	648.69	1.5	ANNUAL	ALL	5
506692.89	4319915.59	0.05148	414.75	648.69	1.5	ANNUAL	ALL	5
506673.48	4319915.81	0.05013	414.94	648.69	1.5	ANNUAL	ALL	5
506654.07	4319916.02	0.04784	414.79	648.69	1.5	ANNUAL	ALL	5
506634.66	4319916.24	0.04495	415.3	648.69	1.5	ANNUAL	ALL	5
506615.25	4319916.46	0.04154	416.09	648.69	1.5	ANNUAL	ALL	5
506595.84	4319916.67	0.03776	416.92	648.69	1.5	ANNUAL	ALL	5
506576.43	4319916.89	0.03381	417.89	648.69	1.5	ANNUAL	ALL	5
506557.02	4319917.1	0.02951	418.8	648.69	1.5	ANNUAL	ALL	5
506537.61	4319917.32	0.02561	419.34	648.69	1.5	ANNUAL	ALL	5
506518.2	4319917.54	0.02207	419.67	648.69	1.5	ANNUAL	ALL	5
506498.79	4319917.75	0.01888	419.94	648.69	1.5	ANNUAL	ALL	5
506479.38	4319917.97	0.01602	420.22	648.69	1.5	ANNUAL	ALL	5
506692.68	4319896.84	0.04396	414.39	648.69	1.5	ANNUAL	ALL	5
506673.27	4319897.06	0.0427	414.44	648.69	1.5	ANNUAL	ALL	5
506653.86	4319897.28	0.0408	414.4	648.69	1.5	ANNUAL	ALL	5
506634.45	4319897.49	0.03846	415.09	648.69	1.5	ANNUAL	ALL	5
506615.04	4319897.71	0.03574	416.08	648.69	1.5	ANNUAL	ALL	5
506595.63	4319897.92	0.03271	417.04	648.69	1.5	ANNUAL	ALL	5
506576.22	4319898.14	0.02953	417.93	648.69	1.5	ANNUAL	ALL	5

506556.81	4319898.35	0.02614	418.5	648.69	1.5	ANNUAL	ALL	5
506537.4	4319898.57	0.02289	419.17	648.69	1.5	ANNUAL	ALL	5
506517.99	4319898.79	0.01995	419.46	648.69	1.5	ANNUAL	ALL	5
506498.58	4319899	0.01733	419.37	648.69	1.5	ANNUAL	ALL	5
506479.17	4319899.22	0.01495	419.26	648.69	1.5	ANNUAL	ALL	5
506692.47	4319878.1	0.03789	413.87	648.69	1.5	ANNUAL	ALL	5
506673.06	4319878.31	0.03673	413.83	648.69	1.5	ANNUAL	ALL	5
506653.65	4319878.53	0.03515	414.15	648.69	1.5	ANNUAL	ALL	5
506634.24	4319878.74	0.03325	415.14	648.69	1.5	ANNUAL	ALL	5
506614.83	4319878.96	0.03103	416.18	648.69	1.5	ANNUAL	ALL	5
506595.42	4319879.17	0.02857	416.93	648.69	1.5	ANNUAL	ALL	5
506576.01	4319879.39	0.02599	417.47	648.69	1.5	ANNUAL	ALL	5
506556.6	4319879.61	0.0234	417.52	648.69	1.5	ANNUAL	ALL	5
506537.19	4319879.82	0.02064	418.71	648.69	1.5	ANNUAL	ALL	5
506517.78	4319880.04	0.01814	419.19	648.69	1.5	ANNUAL	ALL	5
506498.37	4319880.25	0.01602	418.6	648.69	1.5	ANNUAL	ALL	5
506478.96	4319880.47	0.01407	417.72	648.69	1.5	ANNUAL	ALL	5
506692.06	4319840.6	0.02886	412.81	648.69	1.5	ANNUAL	ALL	5
506672.65	4319840.81	0.02794	413	648.69	1.5	ANNUAL	ALL	5
506653.24	4319841.03	0.02675	413.28	648.69	1.5	ANNUAL	ALL	5
506633.83	4319841.24	0.02537	413.73	648.69	1.5	ANNUAL	ALL	5
506614.42	4319841.46	0.02383	414.28	648.69	1.5	ANNUAL	ALL	5
506595.01	4319841.68	0.02219	414.87	648.69	1.5	ANNUAL	ALL	5
506575.6	4319841.89	0.02047	415.47	648.69	1.5	ANNUAL	ALL	5
506556.19	4319842.11	0.01874	416.29	648.69	1.5	ANNUAL	ALL	5
506536.78	4319842.32	0.01699	416.45	648.69	1.5	ANNUAL	ALL	5
506517.37	4319842.54	0.01528	416.29	648.69	1.5	ANNUAL	ALL	5
506497.96	4319842.76	0.01363	415.98	648.69	1.5	ANNUAL	ALL	5
506478.55	4319842.97	0.01207	415.58	648.69	1.5	ANNUAL	ALL	5
506691.64	4319803.1	0.02266	412.64	648.69	1.5	ANNUAL	ALL	5
506672.23	4319803.32	0.0219	412.8	648.69	1.5	ANNUAL	ALL	5
506652.82	4319803.53	0.02098	412.98	648.69	1.5	ANNUAL	ALL	5
506633.41	4319803.75	0.01996	413.2	648.69	1.5	ANNUAL	ALL	5
506614	4319803.96	0.01884	413.45	648.69	1.5	ANNUAL	ALL	5
506594.59	4319804.18	0.01768	413.72	648.69	1.5	ANNUAL	ALL	5
506575.18	4319804.39	0.01647	413.97	648.69	1.5	ANNUAL	ALL	5
506555.77	4319804.61	0.01523	413.91	648.69	1.5	ANNUAL	ALL	5
506536.36	4319804.83	0.01401	414.24	648.69	1.5	ANNUAL	ALL	5
506516.95	4319805.04	0.0128	414.51	648.69	1.5	ANNUAL	ALL	5
506497.54	4319805.26	0.0116	414.66	648.69	1.5	ANNUAL	ALL	5
506478.13	4319805.47	0.01045	414.8	648.69	1.5	ANNUAL	ALL	5
506691.22	4319765.6	0.01819	412.45	648.69	1.5	ANNUAL	ALL	5
506671.81	4319765.82	0.01756	412.57	648.69	1.5	ANNUAL	ALL	5
506652.4	4319766.03	0.01685	412.82	648.69	1.5	ANNUAL	ALL	5
506632.99	4319766.25	0.01608	413.08	648.69	1.5	ANNUAL	ALL	5
506613.58	4319766.47	0.01525	413.26	648.69	1.5	ANNUAL	ALL	5
506594.17	4319766.68	0.0144	413.39	648.69	1.5	ANNUAL	ALL	5
506574.76	4319766.9	0.01353	413.53	648.69	1.5	ANNUAL	ALL	5
506555.35	4319767.11	0.01264	413.39	648.69	1.5	ANNUAL	ALL	5
506535.94	4319767.33	0.01176	413.88	648.69	1.5	ANNUAL	ALL	5
506516.53	4319767.54	0.01087	414.27	648.69	1.5	ANNUAL	ALL	5
506497.12	4319767.76	0.00999	414.47	648.69	1.5	ANNUAL	ALL	5
506477.71	4319767.98	0.00913	414.66	648.69	1.5	ANNUAL	ALL	5
506690.8	4319728.1	0.01488	412.38	648.69	1.5	ANNUAL	ALL	5
506671.39	4319728.32	0.01437	412.57	648.69	1.5	ANNUAL	ALL	5
506651.98	4319728.54	0.01381	412.91	648.69	1.5	ANNUAL	ALL	5
506632.57	4319728.75	0.0132	413.07	648.69	1.5	ANNUAL	ALL	5
506613.16	4319728.97	0.01258	413.22	648.69	1.5	ANNUAL	ALL	5
506593.75	4319729.18	0.01194	413.33	648.69	1.5	ANNUAL	ALL	5
506574.34	4319729.4	0.01129	413.35	648.69	1.5	ANNUAL	ALL	5
506554.93	4319729.62	0.01063	413.26	648.69	1.5	ANNUAL	ALL	5
506535.52	4319729.83	0.00999	413.83	648.69	1.5	ANNUAL	ALL	5
506516.11	4319730.05	0.00933	414.05	648.69	1.5	ANNUAL	ALL	5
506496.7	4319730.26	0.00866	414.08	648.69	1.5	ANNUAL	ALL	5
506477.29	4319730.48	0.008	414.2	648.69	1.5	ANNUAL	ALL	5
506709.38	4319652.89	0.01077	413.77	648.69	1.5	ANNUAL	ALL	5
506689.97	4319653.11	0.01045	414.5	648.69	1.5	ANNUAL	ALL	5
506670.56	4319653.32	0.0101	415.36	648.69	1.5	ANNUAL	ALL	5
506651.15	4319653.54	0.00973	416.15	648.69	1.5	ANNUAL	ALL	5
506631.74	4319653.76	0.00936	416.08	648.69	1.5	ANNUAL	ALL	5
506612.33	4319653.97	0.00897	415.34	648.69	1.5	ANNUAL	ALL	5
506592.92	4319654.19	0.00858	414.4	648.69	1.5	ANNUAL	ALL	5
506573.51	4319654.4	0.00819	413.73	648.69	1.5	ANNUAL	ALL	5
506554.1	4319654.62	0.00781	413.58	648.69	1.5	ANNUAL	ALL	5
506534.69	4319654.84	0.00743	414.03	648.69	1.5	ANNUAL	ALL	5
506515.28	4319655.05	0.00705	414.6	648.69	1.5	ANNUAL	ALL	5
506495.87	4319655.27	0.00666	414.84	648.69	1.5	ANNUAL	ALL	5
506476.46	4319655.48	0.00626	414.63	648.69	1.5	ANNUAL	ALL	5
506708.55	4319577.9	0.00718	429.41	648.69	1.5	ANNUAL	ALL	5
506689.14	4319578.11	0.00681	431.33	648.69	1.5	ANNUAL	ALL	5
506669.73	4319578.33	0.00661	430.78	648.69	1.5	ANNUAL	ALL	5
506650.32	4319578.55	0.00666	426.07	648.69	1.5	ANNUAL	ALL	5
506630.91	4319578.76	0.00662	422.68	648.69	1.5	ANNUAL	ALL	5
506611.5	4319578.98	0.00658	420.37	648.69	1.5	ANNUAL	ALL	5

506592.09	4319579.19	0.00642	418.39	648.69	1.5	ANNUAL	ALL	5
506572.68	4319579.41	0.0062	416.44	648.69	1.5	ANNUAL	ALL	5
506553.27	4319579.62	0.00596	415.22	648.69	1.5	ANNUAL	ALL	5
506533.86	4319579.84	0.00572	415.3	648.69	1.5	ANNUAL	ALL	5
506514.45	4319580.06	0.00549	416.28	648.69	1.5	ANNUAL	ALL	5
506495.04	4319580.27	0.00525	417.59	648.69	1.5	ANNUAL	ALL	5
506475.63	4319580.49	0.00498	418.51	648.69	1.5	ANNUAL	ALL	5
506462.36	4320012	0.01928	423.29	648.69	1.5	ANNUAL	ALL	5
506426.41	4320012.58	0.01329	423.56	648.69	1.5	ANNUAL	ALL	5
506390.47	4320013.15	0.0101	423.51	648.69	1.5	ANNUAL	ALL	5
506462.06	4319993.25	0.0183	422.23	648.69	1.5	ANNUAL	ALL	5
506426.11	4319993.83	0.01239	422.7	648.69	1.5	ANNUAL	ALL	5
506390.17	4319994.41	0.00932	422.64	648.69	1.5	ANNUAL	ALL	5
506461.76	4319974.51	0.01698	421.5	648.69	1.5	ANNUAL	ALL	5
506425.81	4319975.08	0.01187	421.96	648.69	1.5	ANNUAL	ALL	5
506389.87	4319975.66	0.00888	421.59	648.69	1.5	ANNUAL	ALL	5
506461.46	4319955.76	0.0158	420.82	648.69	1.5	ANNUAL	ALL	5
506443.48	4319956.05	0.01332	420.66	648.69	1.5	ANNUAL	ALL	5
506407.54	4319956.62	0.00973	420.14	648.69	1.5	ANNUAL	ALL	5
506371.6	4319957.2	0.00751	419.38	648.69	1.5	ANNUAL	ALL	5
506461.15	4319937.01	0.01476	420.1	648.69	1.5	ANNUAL	ALL	5
506425.21	4319937.59	0.01091	418.55	648.69	1.5	ANNUAL	ALL	5
506389.27	4319938.16	0.00821	417.87	648.69	1.5	ANNUAL	ALL	5
506371.3	4319938.45	0.00721	417.56	648.69	1.5	ANNUAL	ALL	5
506460.85	4319918.26	0.01391	418.94	648.69	1.5	ANNUAL	ALL	5
506424.91	4319918.84	0.01038	417.43	648.69	1.5	ANNUAL	ALL	5
506388.97	4319919.42	0.00775	416.96	648.69	1.5	ANNUAL	ALL	5
506460.55	4319899.52	0.01314	417.78	648.69	1.5	ANNUAL	ALL	5
506424.61	4319900.09	0.00978	416.39	648.69	1.5	ANNUAL	ALL	5
506406.64	4319900.38	0.00845	416.22	648.69	1.5	ANNUAL	ALL	5
506370.69	4319900.96	0.00645	416.77	648.69	1.5	ANNUAL	ALL	5
506460.25	4319880.77	0.01223	416.66	648.69	1.5	ANNUAL	ALL	5
506424.31	4319881.34	0.00923	415.5	648.69	1.5	ANNUAL	ALL	5
506388.37	4319881.92	0.00701	416.37	648.69	1.5	ANNUAL	ALL	5
506459.65	4319843.27	0.01065	415.04	648.69	1.5	ANNUAL	ALL	5
506423.71	4319843.85	0.00832	415.85	648.69	1.5	ANNUAL	ALL	5
506387.76	4319844.43	0.00643	416.27	648.69	1.5	ANNUAL	ALL	5
506459.05	4319805.78	0.00938	415.11	648.69	1.5	ANNUAL	ALL	5
506441.08	4319806.07	0.00842	415.31	648.69	1.5	ANNUAL	ALL	5
506405.13	4319806.64	0.0067	415.75	648.69	1.5	ANNUAL	ALL	5
506369.19	4319807.22	0.00528	416.33	648.69	1.5	ANNUAL	ALL	5
506458.45	4319768.28	0.00829	414.77	648.69	1.5	ANNUAL	ALL	5
506422.5	4319768.86	0.00682	415.1	648.69	1.5	ANNUAL	ALL	5
506386.56	4319769.44	0.00551	415.71	648.69	1.5	ANNUAL	ALL	5
506457.85	4319730.79	0.00735	414.13	648.69	1.5	ANNUAL	ALL	5
506421.9	4319731.36	0.00619	414.84	648.69	1.5	ANNUAL	ALL	5
506385.96	4319731.94	0.00513	416.51	648.69	1.5	ANNUAL	ALL	5
506456.64	4319655.8	0.00586	414.6	648.69	1.5	ANNUAL	ALL	5
506438.67	4319656.08	0.00549	414.83	648.69	1.5	ANNUAL	ALL	5
506402.73	4319656.66	0.00477	415.92	648.69	1.5	ANNUAL	ALL	5
506366.78	4319657.24	0.00407	417.46	648.69	1.5	ANNUAL	ALL	5
506455.44	4319580.81	0.00474	418.18	648.69	1.5	ANNUAL	ALL	5
506419.5	4319581.38	0.00427	416.91	648.69	1.5	ANNUAL	ALL	5
506383.55	4319581.96	0.00379	417.14	648.69	1.5	ANNUAL	ALL	5
506339.84	4320036.71	0.00844	423.71	648.69	1.5	ANNUAL	ALL	5
506340.14	4320021.59	0.00792	422.79	648.69	1.5	ANNUAL	ALL	5
506358.5	4320000.97	0.00806	421.95	648.69	1.5	ANNUAL	ALL	5
506337.21	4320053.17	0.00897	424.38	648.69	1.5	ANNUAL	ALL	5
506321.48	4320023.45	0.00737	421.79	648.69	1.5	ANNUAL	ALL	5
506344.49	4319988.5	0.00714	420.6	648.69	1.5	ANNUAL	ALL	5
506318.55	4320055.04	0.00829	422.88	648.69	1.5	ANNUAL	ALL	5
506302.83	4320025.32	0.00684	420.6	648.69	1.5	ANNUAL	ALL	5
506312.13	4319996.65	0.00636	419.37	648.69	1.5	ANNUAL	ALL	5
506330.49	4319976.03	0.00639	419.02	648.69	1.5	ANNUAL	ALL	5
506299.9	4320056.9	0.00772	421.61	648.69	1.5	ANNUAL	ALL	5
506284.17	4320027.18	0.00635	419.66	648.69	1.5	ANNUAL	ALL	5
506293.48	4319998.51	0.00591	418.75	648.69	1.5	ANNUAL	ALL	5
506316.49	4319963.56	0.00574	417.68	648.69	1.5	ANNUAL	ALL	5
506343.89	4319951.01	0.00633	417.77	648.69	1.5	ANNUAL	ALL	5
506281.24	4320058.77	0.0071	420.75	648.69	1.5	ANNUAL	ALL	5
506265.51	4320029.05	0.00586	419.36	648.69	1.5	ANNUAL	ALL	5
506274.82	4320000.38	0.00548	418.52	648.69	1.5	ANNUAL	ALL	5
506284.13	4319971.71	0.0051	418.01	648.69	1.5	ANNUAL	ALL	5
506302.49	4319951.1	0.0051	417.58	648.69	1.5	ANNUAL	ALL	5
506329.89	4319938.54	0.00558	416.68	648.69	1.5	ANNUAL	ALL	5
506357.29	4319925.98	0.00631	417.2	648.69	1.5	ANNUAL	ALL	5
506262.58	4320060.63	0.00652	420.17	648.69	1.5	ANNUAL	ALL	5
506246.86	4320030.91	0.00541	419.28	648.69	1.5	ANNUAL	ALL	5
506256.16	4320002.24	0.00507	418.63	648.69	1.5	ANNUAL	ALL	5
506265.47	4319973.57	0.00473	418.14	648.69	1.5	ANNUAL	ALL	5
506288.48	4319938.63	0.00456	417.9	648.69	1.5	ANNUAL	ALL	5
506315.89	4319926.07	0.00496	417.34	648.69	1.5	ANNUAL	ALL	5
506343.29	4319913.51	0.00556	417.17	648.69	1.5	ANNUAL	ALL	5
506243.93	4320062.5	0.00597	420.36	648.69	1.5	ANNUAL	ALL	5

506234.18	4320014.35	0.00481	418.99	648.69	1.5	ANNUAL	ALL	5
506244.82	4319981.58	0.00446	418.48	648.69	1.5	ANNUAL	ALL	5
506255.46	4319948.82	0.00411	418.36	648.69	1.5	ANNUAL	ALL	5
506292.1	4319918.08	0.00431	417.84	648.69	1.5	ANNUAL	ALL	5
506323.42	4319903.73	0.00481	417.52	648.69	1.5	ANNUAL	ALL	5
506354.73	4319889.38	0.00561	417.07	648.69	1.5	ANNUAL	ALL	5
506223.54	4320047.12	0.00515	419.63	648.69	1.5	ANNUAL	ALL	5
506226.99	4320081.62	0.00583	421.12	648.69	1.5	ANNUAL	ALL	5
506191.4	4320034.92	0.00429	419.62	648.69	1.5	ANNUAL	ALL	5
506201.74	4320003.06	0.00402	419.31	648.69	1.5	ANNUAL	ALL	5
506212.09	4319971.21	0.00376	418.72	648.69	1.5	ANNUAL	ALL	5
506222.43	4319939.35	0.00349	418.64	648.69	1.5	ANNUAL	ALL	5
506248	4319900.52	0.00337	418.19	648.69	1.5	ANNUAL	ALL	5
506278.45	4319886.57	0.00366	417.75	648.69	1.5	ANNUAL	ALL	5
506308.89	4319872.62	0.00409	417.38	648.69	1.5	ANNUAL	ALL	5
506339.34	4319858.67	0.00475	417.1	648.69	1.5	ANNUAL	ALL	5
506187.96	4320068.1	0.00468	420.24	648.69	1.5	ANNUAL	ALL	5
506153.99	4320038.94	0.00373	419.79	648.69	1.5	ANNUAL	ALL	5
506164.15	4320007.66	0.00352	419.69	648.69	1.5	ANNUAL	ALL	5
506174.3	4319976.39	0.00331	419.54	648.69	1.5	ANNUAL	ALL	5
506184.46	4319945.11	0.00311	419.18	648.69	1.5	ANNUAL	ALL	5
506194.61	4319913.83	0.00289	419.36	648.69	1.5	ANNUAL	ALL	5
506219.72	4319875.71	0.0028	418.64	648.69	1.5	ANNUAL	ALL	5
506249.61	4319862.01	0.00301	418.05	648.69	1.5	ANNUAL	ALL	5
506279.51	4319848.31	0.00332	417.82	648.69	1.5	ANNUAL	ALL	5
506309.4	4319834.61	0.00378	417.33	648.69	1.5	ANNUAL	ALL	5
506339.3	4319820.92	0.00444	416.71	648.69	1.5	ANNUAL	ALL	5
506150.64	4320071.83	0.00404	420.17	648.69	1.5	ANNUAL	ALL	5
506116.61	4320042.87	0.00325	420.74	648.69	1.5	ANNUAL	ALL	5
506126.64	4320012	0.00309	420.42	648.69	1.5	ANNUAL	ALL	5
506136.66	4319981.12	0.00293	420.2	648.69	1.5	ANNUAL	ALL	5
506146.69	4319950.24	0.00276	420.18	648.69	1.5	ANNUAL	ALL	5
506156.71	4319919.37	0.0026	420.16	648.69	1.5	ANNUAL	ALL	5
506166.74	4319888.49	0.00244	419.93	648.69	1.5	ANNUAL	ALL	5
506191.52	4319850.86	0.00235	419.41	648.69	1.5	ANNUAL	ALL	5
506221.03	4319837.33	0.00251	418.88	648.69	1.5	ANNUAL	ALL	5
506250.54	4319823.81	0.00271	419.16	648.69	1.5	ANNUAL	ALL	5
506280.05	4319810.29	0.00305	418.95	648.69	1.5	ANNUAL	ALL	5
506309.57	4319796.77	0.00355	418.13	648.69	1.5	ANNUAL	ALL	5
506339.08	4319783.25	0.00419	417.28	648.69	1.5	ANNUAL	ALL	5
506113.33	4320075.56	0.00349	420.9	648.69	1.5	ANNUAL	ALL	5
506079.61	4320045.66	0.00286	421.34	648.69	1.5	ANNUAL	ALL	5
506090.25	4320012.89	0.00272	421.24	648.69	1.5	ANNUAL	ALL	5
506100.88	4319980.13	0.00258	420.91	648.69	1.5	ANNUAL	ALL	5
506111.52	4319947.36	0.00244	421.04	648.69	1.5	ANNUAL	ALL	5
506122.16	4319914.59	0.00228	421.74	648.69	1.5	ANNUAL	ALL	5
506132.8	4319881.83	0.00215	421.21	648.69	1.5	ANNUAL	ALL	5
506143.44	4319849.06	0.00202	420.57	648.69	1.5	ANNUAL	ALL	5
506164.42	4319825.5	0.002	420.67	648.69	1.5	ANNUAL	ALL	5
506195.73	4319811.15	0.00213	419.84	648.69	1.5	ANNUAL	ALL	5
506227.05	4319796.8	0.0023	420.51	648.69	1.5	ANNUAL	ALL	5
506258.37	4319782.45	0.00256	421.19	648.69	1.5	ANNUAL	ALL	5
506289.69	4319768.1	0.00297	420.94	648.69	1.5	ANNUAL	ALL	5
506321.01	4319753.75	0.00356	419.57	648.69	1.5	ANNUAL	ALL	5
506352.33	4319739.4	0.00425	418.71	648.69	1.5	ANNUAL	ALL	5
506076.01	4320079.29	0.00306	421.14	648.69	1.5	ANNUAL	ALL	5
506004.83	4320053.58	0.00227	422.25	648.69	1.5	ANNUAL	ALL	5
506015.18	4320021.72	0.00214	422.5	648.69	1.5	ANNUAL	ALL	5
506025.52	4319989.86	0.00202	423.75	648.69	1.5	ANNUAL	ALL	5
506035.86	4319958.01	0.00194	424.16	648.69	1.5	ANNUAL	ALL	5
506046.2	4319926.15	0.00188	422.95	648.69	1.5	ANNUAL	ALL	5
506056.55	4319894.3	0.0018	423.07	648.69	1.5	ANNUAL	ALL	5
506066.89	4319862.44	0.00171	424.23	648.69	1.5	ANNUAL	ALL	5
506077.23	4319830.59	0.00162	423.95	648.69	1.5	ANNUAL	ALL	5
506087.57	4319798.73	0.00151	424.2	648.69	1.5	ANNUAL	ALL	5
506107.97	4319775.83	0.00147	424.12	648.69	1.5	ANNUAL	ALL	5
506138.42	4319761.87	0.00152	422.99	648.69	1.5	ANNUAL	ALL	5
506168.87	4319747.92	0.0016	422.83	648.69	1.5	ANNUAL	ALL	5
506199.32	4319733.97	0.00169	425.54	648.69	1.5	ANNUAL	ALL	5
506229.77	4319720.02	0.00189	426.88	648.69	1.5	ANNUAL	ALL	5
506260.21	4319706.07	0.00227	424.36	648.69	1.5	ANNUAL	ALL	5
506290.66	4319692.12	0.00277	421.9	648.69	1.5	ANNUAL	ALL	5
506321.11	4319678.17	0.00326	420.36	648.69	1.5	ANNUAL	ALL	5
506001.39	4320086.75	0.00239	422.72	648.69	1.5	ANNUAL	ALL	5
505930.35	4320060.58	0.00183	423.95	648.69	1.5	ANNUAL	ALL	5
505940.99	4320027.82	0.00175	423.77	648.69	1.5	ANNUAL	ALL	5
505951.63	4319995.05	0.00166	423.87	648.69	1.5	ANNUAL	ALL	5
505962.27	4319962.29	0.00157	425.52	648.69	1.5	ANNUAL	ALL	5
505972.91	4319929.52	0.00154	424.93	648.69	1.5	ANNUAL	ALL	5
505983.54	4319896.75	0.00149	424.47	648.69	1.5	ANNUAL	ALL	5
505994.18	4319863.99	0.00143	425.38	648.69	1.5	ANNUAL	ALL	5
506004.82	4319831.22	0.00136	426.88	648.69	1.5	ANNUAL	ALL	5
506015.46	4319798.46	0.00129	427.78	648.69	1.5	ANNUAL	ALL	5
506026.1	4319765.69	0.0012	428.83	648.69	1.5	ANNUAL	ALL	5

506052.39	4319725.75	0.0011	429.84	648.69	1.5	ANNUAL	ALL	5
506083.71	4319711.4	0.00111	429.18	648.69	1.5	ANNUAL	ALL	5
506115.03	4319697.05	0.00119	426.26	648.69	1.5	ANNUAL	ALL	5
506146.35	4319682.7	0.0013	425.21	648.69	1.5	ANNUAL	ALL	5
506177.67	4319668.35	0.0014	428.25	648.69	1.5	ANNUAL	ALL	5
506208.99	4319654	0.00164	427.47	648.69	1.5	ANNUAL	ALL	5
506240.31	4319639.65	0.00199	424.32	648.69	1.5	ANNUAL	ALL	5
506271.63	4319625.3	0.00236	422.52	648.69	1.5	ANNUAL	ALL	5
506302.94	4319610.95	0.00277	420.73	648.69	1.5	ANNUAL	ALL	5
506334.26	4319596.6	0.00319	418.2	648.69	1.5	ANNUAL	ALL	5
505926.76	4320094.22	0.00193	425.25	648.69	1.5	ANNUAL	ALL	5
506339.08	4320071.65	0.00989	425.14	648.69	1.5	ANNUAL	ALL	5
506341.67	4320091.06	0.011	425.96	648.69	1.5	ANNUAL	ALL	5
506344.26	4320110.47	0.01217	427.01	648.69	1.5	ANNUAL	ALL	5
506320.49	4320074.13	0.0091	423.68	648.69	1.5	ANNUAL	ALL	5
506323.08	4320093.54	0.01004	424.52	648.69	1.5	ANNUAL	ALL	5
506325.67	4320112.95	0.01105	425.34	648.69	1.5	ANNUAL	ALL	5
506301.91	4320076.61	0.00848	422.37	648.69	1.5	ANNUAL	ALL	5
506304.5	4320096.02	0.00918	423.12	648.69	1.5	ANNUAL	ALL	5
506307.09	4320115.43	0.01005	423.79	648.69	1.5	ANNUAL	ALL	5
506283.32	4320079.09	0.00777	421.47	648.69	1.5	ANNUAL	ALL	5
506285.91	4320098.5	0.00848	422.12	648.69	1.5	ANNUAL	ALL	5
506288.5	4320117.91	0.00913	422.67	648.69	1.5	ANNUAL	ALL	5
506264.74	4320081.57	0.00712	420.86	648.69	1.5	ANNUAL	ALL	5
506267.33	4320100.98	0.00772	421.55	648.69	1.5	ANNUAL	ALL	5
506269.92	4320120.39	0.00834	422.22	648.69	1.5	ANNUAL	ALL	5
506246.15	4320084.05	0.00649	421.08	648.69	1.5	ANNUAL	ALL	5
506248.74	4320103.46	0.007	421.8	648.69	1.5	ANNUAL	ALL	5
506251.33	4320122.87	0.00744	422.53	648.69	1.5	ANNUAL	ALL	5
506230.16	4320105.94	0.00635	422.24	648.69	1.5	ANNUAL	ALL	5
506232.75	4320125.35	0.00671	423.18	648.69	1.5	ANNUAL	ALL	5
506190.4	4320091.49	0.00503	421.37	648.69	1.5	ANNUAL	ALL	5
506192.99	4320110.9	0.00534	422.36	648.69	1.5	ANNUAL	ALL	5
506195.58	4320130.31	0.00559	423.46	648.69	1.5	ANNUAL	ALL	5
506153.23	4320096.45	0.00432	421.24	648.69	1.5	ANNUAL	ALL	5
506155.82	4320115.86	0.00456	422.04	648.69	1.5	ANNUAL	ALL	5
506158.41	4320135.27	0.00476	422.9	648.69	1.5	ANNUAL	ALL	5
506116.06	4320101.41	0.00374	421.39	648.69	1.5	ANNUAL	ALL	5
506118.65	4320120.82	0.00393	421.93	648.69	1.5	ANNUAL	ALL	5
506121.24	4320140.23	0.00409	422.76	648.69	1.5	ANNUAL	ALL	5
506078.89	4320106.37	0.00327	421.62	648.69	1.5	ANNUAL	ALL	5
506081.48	4320125.78	0.00341	422.33	648.69	1.5	ANNUAL	ALL	5
506084.07	4320145.19	0.00353	423.03	648.69	1.5	ANNUAL	ALL	5
506004.54	4320116.29	0.00254	423.4	648.69	1.5	ANNUAL	ALL	5
506007.13	4320135.7	0.00262	424.35	648.69	1.5	ANNUAL	ALL	5
506009.72	4320155.11	0.00268	425.37	648.69	1.5	ANNUAL	ALL	5
505930.2	4320126.21	0.00204	425.31	648.69	1.5	ANNUAL	ALL	5
505932.79	4320145.62	0.00208	426.64	648.69	1.5	ANNUAL	ALL	5
505935.38	4320165.03	0.00211	427.33	648.69	1.5	ANNUAL	ALL	5
506198.66	4320148.44	0.00586	424.61	648.69	1.5	ANNUAL	ALL	5
506161.76	4320155.13	0.00499	423.83	648.69	1.5	ANNUAL	ALL	5
506124.86	4320161.81	0.00426	423.89	648.69	1.5	ANNUAL	ALL	5
506087.96	4320168.5	0.00367	424.15	648.69	1.5	ANNUAL	ALL	5
506014.16	4320181.88	0.00278	425.61	648.69	1.5	ANNUAL	ALL	5
505938.64	4320185.76	0.00215	427.46	648.69	1.5	ANNUAL	ALL	5
506344.82	4320135.08	0.01361	427.59	648.69	1.5	ANNUAL	ALL	5
506326.08	4320134.33	0.01207	425.79	648.69	1.5	ANNUAL	ALL	5
506307.35	4320133.58	0.01076	424.14	648.69	1.5	ANNUAL	ALL	5
506287.95	4320140.61	0.00981	423.08	648.69	1.5	ANNUAL	ALL	5
506269.26	4320139.17	0.00869	422.81	648.69	1.5	ANNUAL	ALL	5
506345.96	4320154.73	0.0149	427.51	648.69	1.5	ANNUAL	ALL	5
506353.06	4320174.9	0.01723	426.9	648.69	1.5	ANNUAL	ALL	5
506329.19	4320163.11	0.01367	426.17	648.69	1.5	ANNUAL	ALL	5
506336.29	4320183.28	0.01547	426.28	648.69	1.5	ANNUAL	ALL	5
506312.42	4320171.49	0.01254	424.99	648.69	1.5	ANNUAL	ALL	5
506308.57	4320151.86	0.01154	424.42	648.69	1.5	ANNUAL	ALL	5
506319.52	4320191.66	0.01398	425.54	648.69	1.5	ANNUAL	ALL	5
506295.65	4320179.87	0.01144	424.38	648.69	1.5	ANNUAL	ALL	5
506291.8	4320160.24	0.01062	423.7	648.69	1.5	ANNUAL	ALL	5
506302.74	4320200.05	0.01261	425.22	648.69	1.5	ANNUAL	ALL	5
506278.87	4320188.26	0.01039	424.35	648.69	1.5	ANNUAL	ALL	5
506275.03	4320168.62	0.0097	423.75	648.69	1.5	ANNUAL	ALL	5
506285.97	4320208.43	0.0114	425.07	648.69	1.5	ANNUAL	ALL	5
506262.1	4320196.64	0.00939	424.97	648.69	1.5	ANNUAL	ALL	5
506258.26	4320177.01	0.00881	424.39	648.69	1.5	ANNUAL	ALL	5
506254.41	4320157.37	0.00826	423.71	648.69	1.5	ANNUAL	ALL	5
506269.2	4320216.81	0.01025	425.66	648.69	1.5	ANNUAL	ALL	5
506245.06	4320203.62	0.00834	426.83	648.69	1.5	ANNUAL	ALL	5
506240.66	4320181.18	0.00783	425.76	648.69	1.5	ANNUAL	ALL	5
506236.26	4320158.74	0.00737	424.49	648.69	1.5	ANNUAL	ALL	5
506252.43	4320225.19	0.00918	426.93	648.69	1.5	ANNUAL	ALL	5
506211.57	4320220.69	0.00691	428.51	648.69	1.5	ANNUAL	ALL	5
506207.3	4320198.88	0.00649	428.06	648.69	1.5	ANNUAL	ALL	5
506203.03	4320177.07	0.00618	426.92	648.69	1.5	ANNUAL	ALL	5

506218.88	4320241.96	0.00758	428.34	648.69	1.5	ANNUAL	ALL	5
506178.07	4320237.66	0.00602	427.09	648.69	1.5	ANNUAL	ALL	5
506173.87	4320216.24	0.00571	426.2	648.69	1.5	ANNUAL	ALL	5
506169.68	4320194.82	0.00545	425.28	648.69	1.5	ANNUAL	ALL	5
506165.48	4320173.4	0.00521	424.43	648.69	1.5	ANNUAL	ALL	5
506185.34	4320258.72	0.00648	428.2	648.69	1.5	ANNUAL	ALL	5
506144.55	4320254.56	0.0052	427.51	648.69	1.5	ANNUAL	ALL	5
506140.41	4320233.41	0.00491	427.23	648.69	1.5	ANNUAL	ALL	5
506136.27	4320212.27	0.00468	426.66	648.69	1.5	ANNUAL	ALL	5
506132.12	4320191.13	0.0045	425.65	648.69	1.5	ANNUAL	ALL	5
506151.8	4320275.48	0.00561	428.15	648.69	1.5	ANNUAL	ALL	5
506110.88	4320270.67	0.00454	427.89	648.69	1.5	ANNUAL	ALL	5
506106.48	4320248.24	0.00421	428.89	648.69	1.5	ANNUAL	ALL	5
506102.09	4320225.8	0.00403	427.76	648.69	1.5	ANNUAL	ALL	5
506097.69	4320203.36	0.00389	426.38	648.69	1.5	ANNUAL	ALL	5
506118.25	4320292.25	0.00498	426.54	648.69	1.5	ANNUAL	ALL	5
506043.85	4320304.51	0.0036	427.6	648.69	1.5	ANNUAL	ALL	5
506039.58	4320282.7	0.00334	429.19	648.69	1.5	ANNUAL	ALL	5
506035.3	4320260.89	0.00317	429	648.69	1.5	ANNUAL	ALL	5
506031.03	4320239.07	0.00305	428.06	648.69	1.5	ANNUAL	ALL	5
506026.76	4320217.26	0.00297	426.61	648.69	1.5	ANNUAL	ALL	5
506051.16	4320325.78	0.00394	425.35	648.69	1.5	ANNUAL	ALL	5
505976.7	4320337.73	0.00304	422.9	648.69	1.5	ANNUAL	ALL	5
505972.31	4320315.29	0.00287	423.44	648.69	1.5	ANNUAL	ALL	5
505967.91	4320292.86	0.00272	423.75	648.69	1.5	ANNUAL	ALL	5
505963.52	4320270.42	0.00258	424.11	648.69	1.5	ANNUAL	ALL	5
505959.12	4320247.98	0.00246	424.65	648.69	1.5	ANNUAL	ALL	5
505954.72	4320225.54	0.00232	426.86	648.69	1.5	ANNUAL	ALL	5
505950.33	4320203.11	0.00224	427.57	648.69	1.5	ANNUAL	ALL	5
505984.07	4320359.3	0.00322	422.38	648.69	1.5	ANNUAL	ALL	5
506348.76	4320208.51	0.01912	424.93	648.69	1.5	ANNUAL	ALL	5
506363.71	4320238.99	0.02436	424.4	648.69	1.5	ANNUAL	ALL	5
506331.92	4320216.76	0.01682	425.08	648.69	1.5	ANNUAL	ALL	5
506346.88	4320247.24	0.02118	424.2	648.69	1.5	ANNUAL	ALL	5
506315.09	4320225.02	0.01486	425.46	648.69	1.5	ANNUAL	ALL	5
506330.04	4320255.5	0.01833	425.03	648.69	1.5	ANNUAL	ALL	5
506298.26	4320233.28	0.01328	425.48	648.69	1.5	ANNUAL	ALL	5
506313.21	4320263.76	0.01599	425.96	648.69	1.5	ANNUAL	ALL	5
506281.42	4320241.54	0.01187	425.88	648.69	1.5	ANNUAL	ALL	5
506296.38	4320272.02	0.01407	426.85	648.69	1.5	ANNUAL	ALL	5
506264.59	4320249.8	0.01063	426.66	648.69	1.5	ANNUAL	ALL	5
506279.54	4320280.28	0.0125	427.54	648.69	1.5	ANNUAL	ALL	5
506230.92	4320266.31	0.00868	428.02	648.69	1.5	ANNUAL	ALL	5
506197.26	4320282.83	0.00726	428.83	648.69	1.5	ANNUAL	ALL	5
506212.21	4320313.31	0.00831	429.45	648.69	1.5	ANNUAL	ALL	5
506163.59	4320299.35	0.00631	427.5	648.69	1.5	ANNUAL	ALL	5
506178.54	4320329.83	0.00713	428.05	648.69	1.5	ANNUAL	ALL	5
506129.92	4320315.86	0.00557	425.29	648.69	1.5	ANNUAL	ALL	5
506144.88	4320346.34	0.00625	425.36	648.69	1.5	ANNUAL	ALL	5
506062.59	4320348.9	0.00435	423.37	648.69	1.5	ANNUAL	ALL	5
506077.54	4320379.38	0.00481	422.06	648.69	1.5	ANNUAL	ALL	5
505995.26	4320381.93	0.00345	421.83	648.69	1.5	ANNUAL	ALL	5
506010.21	4320412.41	0.00374	423.68	648.69	1.5	ANNUAL	ALL	5
506357.39	4320269.94	0.02405	425.73	648.69	1.5	ANNUAL	ALL	5
506340.38	4320277.83	0.0206	426.48	648.69	1.5	ANNUAL	ALL	5
506221.33	4320333.09	0.00885	430.84	648.69	1.5	ANNUAL	ALL	5
506187.32	4320348.88	0.00749	429.96	648.69	1.5	ANNUAL	ALL	5
506153.31	4320364.67	0.00654	427.11	648.69	1.5	ANNUAL	ALL	5
506085.28	4320396.25	0.00507	421.55	648.69	1.5	ANNUAL	ALL	5
506229.53	4320397.56	0.00983	430.48	648.69	1.5	ANNUAL	ALL	5
506208.43	4320373.22	0.00848	431.08	648.69	1.5	ANNUAL	ALL	5
506309.38	4320504.39	0.01646	427.01	648.69	1.5	ANNUAL	ALL	5
506277.69	4320494.69	0.01392	427.22	648.69	1.5	ANNUAL	ALL	5
506250.99	4320477.33	0.01191	427.94	648.69	1.5	ANNUAL	ALL	5
506229.29	4320452.29	0.01063	425.86	648.69	1.5	ANNUAL	ALL	5
506207.58	4320427.26	0.00939	424.29	648.69	1.5	ANNUAL	ALL	5
506185.87	4320402.22	0.00795	427.11	648.69	1.5	ANNUAL	ALL	5
506210.52	4320540.68	0.01027	419.47	648.69	1.5	ANNUAL	ALL	5
506189.65	4320516.61	0.00925	419.93	648.69	1.5	ANNUAL	ALL	5
506168.77	4320492.54	0.00825	420.13	648.69	1.5	ANNUAL	ALL	5
506147.9	4320468.46	0.00734	419.79	648.69	1.5	ANNUAL	ALL	5
506127.02	4320444.39	0.00652	419.63	648.69	1.5	ANNUAL	ALL	5
506106.15	4320420.32	0.00576	420.23	648.69	1.5	ANNUAL	ALL	5
506147.5	4320578.03	0.00762	417.18	648.69	1.5	ANNUAL	ALL	5
506125.79	4320553	0.00682	419.54	648.69	1.5	ANNUAL	ALL	5
506104.08	4320527.96	0.00611	419.76	648.69	1.5	ANNUAL	ALL	5
506082.37	4320502.93	0.00546	420.01	648.69	1.5	ANNUAL	ALL	5
506060.67	4320477.89	0.00485	421.27	648.69	1.5	ANNUAL	ALL	5
506038.96	4320452.86	0.00427	423.55	648.69	1.5	ANNUAL	ALL	5

** CONCUNIT ug/ m^3
** DEPUNIT g/m^ 2

Health Risk Assessment

Construction Health Risk Assessment

Phase 2 – Unmitigated

Emissions and Concentrations

Lakeport Shopping Center Project

Phase 2

Estimation of Annual Onsite Construction Emissions

Start of Construction	1/1/2023	
End of Construction	10/2/2023	**Total**
Number of Days	274	274
Number of Hours	6,576	6,576
Number of Years	0.75	0.75
Size of the construction area source:	**15,626.9**	**sq-meters**

CalEEMod Run	Year	On-site Construction Activity	Unmitigated On-site DPM (tons)
Phase 2	2023	On-site Site Preparation	0.00317
Phase 2	2023	On-site Grading	0.00310
Phase 2	2023	On-site Paving	0.00392
Phase 2	2023	On-site Building Construction	0.08090
Phase 2	2023	On-site Architectural Coating	0.00064

Total Unmitigated DPM (On-site) 9.173E-02 tons

Average Emission*	8.329E+04	
	3.518E-03	grams/sec
	2.251E-07	grams/m2/sec

*Size of the construction area source accounted for in AERMOD.

Lakeport Shopping Center Project

Phase 2

Estimation of Annual Offsite Construction DPM Emissions (Unmitigated)

Start of Construction		1/1/2023		
End of Construction		10/2/2023		**Total**
Number of Days		274		274
Number of Hours		6,576		6576

	Phase 2 (2023)	Phase 2 (2023)	Phase 2 (2023)	Phase 2 (2023)	Phase 2 (2023)
Construction Trip Type	Site Preparation	Grading	Paving	Building Construction	Architectural Coating
Haul Truck	0.00001	0.00001	0.00001	0.00003	0.00000
Vendor Truck	0.00000	0.00000	0.00001	0.00112	0.00000
Worker	0.00000	0.00000	0.00001	0.00046	0.00001
Total	0.00001	0.00001	0.00003	0.00161	0.00001

	Haul Truck (tons)	**Vendor Truck (tons)**	**Worker (tons)**	**Total (tons)**
Total DPM	6.000E-05	1.130E-03	4.800E-04	1.670E-03

Average Emissions			
Grams	5.448E+01	1.026E+03	4.358E+02
Grams/sec	2.301E-06	4.334E-05	1.841E-05
Default Distance*	20	7.3	10.8

*Default Vehicle Travel Distance in CalEEMod

Vehicle Travel Distances in the Construction HRA (miles)			
Road Segment 1 (mi)	0.43	0.43	0.43
Road Segment 2 (mi)	0.45	0.45	0.45
Road Segment 3 (mi)	0.53	0.53	0.53
Road Segment 4 (mi)	0.54	0.54	0.54

Trip Distribution (percent)			
Road Segment 1	25.0%	25.0%	25.0%
Road Segment 2	25.0%	25.0%	25.0%
Road Segment 3	25.0%	25.0%	25.0%
Road Segment 4	25.0%	25.0%	25.0%

Total Average Offsite Vehicle Emissions Along Travel Distance (g/sec)				**Total**
Road Segment 1	1.223E-08	6.313E-07	1.812E-07	8.247E-07
Road Segment 2	1.286E-08	6.635E-07	1.905E-07	8.668E-07
Road Segment 3	1.530E-08	7.895E-07	2.267E-07	1.031E-06
Road Segment 4	1.554E-08	8.017E-07	2.302E-07	1.047E-06

Maximum DPM (ug/m3)	UTM X	Y
2.6892E-01	506480.42	4320011.71

* AERMOD (19191): G:\LSC_HRA\Phase 2\Phase 2.isc10/10/2021
* AERMET (14134): 8:50:00 PM
* MODELING OPTIONS USED: Reg DFAULT CONCELEV FLGPOL URBAN
* PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 652 RECEPTORS.
* FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

* X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM YRS	NET ID
506703.91	4320437.76	0.00122	420.88	432.12	1.5	ANNUAL	ALL	5	
506676.87	4320495.35	0.00119	423.66	431.49	1.5	ANNUAL	ALL	5	
506701.34	4320484.15	0.00105	424.59	431.49	1.5	ANNUAL	ALL	5	
506724.35	4320469.2	0.00098	423.58	432.12	1.5	ANNUAL	ALL	5	
506717.54	4320558.3	0.00075	428.24	432.02	1.5	ANNUAL	ALL	5	
506691.19	4320565.86	0.00095	420.45	432.12	1.5	ANNUAL	ALL	5	
506742.21	4320547.04	0.00065	431.7	431.7	1.5	ANNUAL	ALL	5	
506765.22	4320532.08	0.00061	432.05	432.05	1.5	ANNUAL	ALL	5	
506718.35	4320369.19	0.00146	418.53	418.53	1.5	ANNUAL	ALL	5	
506747.68	4320355.39	0.00138	418.67	445.92	1.5	ANNUAL	ALL	5	
506704.99	4320416.93	0.0013	420.06	430.6	1.5	ANNUAL	ALL	5	
506734.32	4320403.12	0.00119	418.93	432.12	1.5	ANNUAL	ALL	5	
506763.65	4320389.32	0.00113	418.46	445.92	1.5	ANNUAL	ALL	5	
506720.96	4320450.86	0.00107	421.47	432.12	1.5	ANNUAL	ALL	5	
506750.29	4320437.05	0.001	419.57	432.12	1.5	ANNUAL	ALL	5	
506779.62	4320423.25	0.00094	418.64	445.92	1.5	ANNUAL	ALL	5	
506721.34	4320488.78	0.00089	425.73	432.12	1.5	ANNUAL	ALL	5	
506751.59	4320477.88	0.00079	426.13	432.12	1.5	ANNUAL	ALL	5	
506768.87	4320552.65	0.00058	431.71	432.04	1.5	ANNUAL	ALL	5	
506757.91	4320246.35	0.00227	419.21	648.69	1.5	ANNUAL	ALL	5	
506776.07	4320220.81	0.0024	419.9	445.92	1.5	ANNUAL	ALL	5	
506774.97	4320254.45	0.00201	420.15	445.92	1.5	ANNUAL	ALL	5	
506754.47	4320274.47	0.00198	419.27	445.92	1.5	ANNUAL	ALL	5	
506755.14	4320298.58	0.00175	418.81	445.92	1.5	ANNUAL	ALL	5	
507069.29	4320032.11	0.00161	411.74	445.92	1.5	ANNUAL	ALL	5	
507144.29	4320032.11	0.00121	408.5	445.92	1.5	ANNUAL	ALL	5	
507136.82	4320049.44	0.00117	410.64	445.92	1.5	ANNUAL	ALL	5	
507129.35	4320066.77	0.00114	412.6	445.92	1.5	ANNUAL	ALL	5	
507121.88	4320084.11	0.0011	415.74	445.92	1.5	ANNUAL	ALL	5	
507114.41	4320101.44	0.00106	418.21	445.92	1.5	ANNUAL	ALL	5	
507106.94	4320118.77	0.00102	419.88	445.92	1.5	ANNUAL	ALL	5	
507099.47	4320136.11	0.00098	421.37	445.92	1.5	ANNUAL	ALL	5	
507092	4320153.44	0.00093	423.61	445.92	1.5	ANNUAL	ALL	5	
507084.53	4320170.77	0.0009	425.39	445.92	1.5	ANNUAL	ALL	5	
507077.06	4320188.11	0.00086	427.1	445.92	1.5	ANNUAL	ALL	5	
507069.59	4320205.44	0.00081	429.72	445.92	1.5	ANNUAL	ALL	5	
507219.29	4320032.11	0.00093	407.19	445.92	1.5	ANNUAL	ALL	5	
507211.82	4320049.45	0.00091	407.27	445.92	1.5	ANNUAL	ALL	5	
507204.34	4320066.79	0.00088	407.4	445.92	1.5	ANNUAL	ALL	5	
507196.87	4320084.13	0.00086	408.03	445.92	1.5	ANNUAL	ALL	5	
507189.39	4320101.47	0.00083	409.32	445.92	1.5	ANNUAL	ALL	5	
507181.92	4320118.82	0.00081	410.51	445.92	1.5	ANNUAL	ALL	5	
507174.45	4320136.16	0.00079	411.8	445.92	1.5	ANNUAL	ALL	5	
507166.97	4320153.5	0.00076	413.4	445.92	1.5	ANNUAL	ALL	5	
507159.5	4320170.84	0.00074	414.94	445.92	1.5	ANNUAL	ALL	5	
507152.02	4320188.18	0.00071	416.48	445.92	1.5	ANNUAL	ALL	5	
507144.55	4320205.52	0.00069	417.42	445.92	1.5	ANNUAL	ALL	5	
506837.97	4319876.1	0.00851	411.74	648.69	1.5	ANNUAL	ALL	5	
506712.12	4319999.57	0.01804	414.57	648.69	1.5	ANNUAL	ALL	5	
506715.28	4319990.41	0.01805	414.55	648.69	1.5	ANNUAL	ALL	5	
506716.15	4319971.68	0.01878	414.55	648.69	1.5	ANNUAL	ALL	5	
506717.01	4319952.95	0.01914	414.63	648.69	1.5	ANNUAL	ALL	5	
506717.88	4319934.22	0.01913	414.72	648.69	1.5	ANNUAL	ALL	5	
506718.74	4319915.49	0.01881	414.8	648.69	1.5	ANNUAL	ALL	5	
506790.5	4319906.09	0.01129	413.43	648.69	1.5	ANNUAL	ALL	5	
506756.99	4319898.49	0.01415	414.02	648.69	1.5	ANNUAL	ALL	5	
506738.3	4319897.62	0.01605	414.15	648.69	1.5	ANNUAL	ALL	5	
506719.61	4319896.76	0.01821	414.33	648.69	1.5	ANNUAL	ALL	5	
506810.41	4319896.04	0.00995	412.28	648.69	1.5	ANNUAL	ALL	5	
506776.55	4319880.62	0.01233	413.08	648.69	1.5	ANNUAL	ALL	5	
506757.86	4319879.76	0.01383	413.22	648.69	1.5	ANNUAL	ALL	5	
506739.16	4319878.89	0.01551	413.28	648.69	1.5	ANNUAL	ALL	5	
506720.47	4319878.03	0.0174	413.49	648.69	1.5	ANNUAL	ALL	5	
506794.15	4319850.39	0.01081	411.86	648.69	1.5	ANNUAL	ALL	5	
506825.89	4319864.84	0.00913	411.67	648.69	1.5	ANNUAL	ALL	5	
506759.59	4319842.3	0.01286	412.09	648.69	1.5	ANNUAL	ALL	5	
506740.89	4319841.43	0.01416	412.29	648.69	1.5	ANNUAL	ALL	5	
506722.2	4319840.57	0.01557	412.5	648.69	1.5	ANNUAL	ALL	5	
506796.94	4319813.41	0.01012	411.86	648.69	1.5	ANNUAL	ALL	5	
506813.87	4319821.12	0.00944	411.64	648.69	1.5	ANNUAL	ALL	5	

506830.79	4319828.82	0.00875	411.39	648.69	1.5	ANNUAL	ALL	5
506847.72	4319836.53	0.00807	411.17	648.69	1.5	ANNUAL	ALL	5
506780.01	4319805.7	0.01078	411.9	648.69	1.5	ANNUAL	ALL	5
506761.32	4319804.84	0.0117	412.02	648.69	1.5	ANNUAL	ALL	5
506742.62	4319803.97	0.01268	412.19	648.69	1.5	ANNUAL	ALL	5
506723.93	4319803.11	0.01371	412.29	648.69	1.5	ANNUAL	ALL	5
506797.9	4319775.6	0.00933	411.56	648.69	1.5	ANNUAL	ALL	5
506830.21	4319790.31	0.00837	411.21	648.69	1.5	ANNUAL	ALL	5
506862.53	4319805.03	0.00737	410.87	648.69	1.5	ANNUAL	ALL	5
506966.08	4319865.66	0.00433	410.16	648.69	1.5	ANNUAL	ALL	5
506763.05	4319767.38	0.01048	411.79	648.69	1.5	ANNUAL	ALL	5
506744.35	4319766.51	0.01122	412.07	648.69	1.5	ANNUAL	ALL	5
506725.66	4319765.65	0.01197	412.15	648.69	1.5	ANNUAL	ALL	5
506800.4	4319738.49	0.00845	411.43	648.69	1.5	ANNUAL	ALL	5
506817.33	4319746.2	0.0081	411.12	648.69	1.5	ANNUAL	ALL	5
506834.25	4319753.9	0.00772	410.98	648.69	1.5	ANNUAL	ALL	5
506851.18	4319761.61	0.00733	410.81	648.69	1.5	ANNUAL	ALL	5
506868.11	4319769.32	0.00693	410.68	648.69	1.5	ANNUAL	ALL	5
506885.04	4319777.03	0.00651	410.6	648.69	1.5	ANNUAL	ALL	5
506993.52	4319840.54	0.00394	409.87	648.69	1.5	ANNUAL	ALL	5
507000.44	4319857.81	0.00372	409.74	648.69	1.5	ANNUAL	ALL	5
507007.36	4319875.07	0.00348	409.83	648.69	1.5	ANNUAL	ALL	5
507048.87	4319978.66	0.00213	410.72	648.69	1.5	ANNUAL	ALL	5
507055.79	4319995.93	0.00195	410.99	648.69	1.5	ANNUAL	ALL	5
507062.71	4320013.19	0.00178	411.2	445.92	1.5	ANNUAL	ALL	5
506783.47	4319730.78	0.00879	411.72	648.69	1.5	ANNUAL	ALL	5
506764.78	4319729.92	0.00933	411.86	648.69	1.5	ANNUAL	ALL	5
506746.08	4319729.05	0.00987	411.94	648.69	1.5	ANNUAL	ALL	5
506727.39	4319728.19	0.01043	412.1	648.69	1.5	ANNUAL	ALL	5
506803.86	4319663.57	0.00688	411.87	648.69	1.5	ANNUAL	ALL	5
506820.79	4319671.28	0.00669	411.31	648.69	1.5	ANNUAL	ALL	5
506837.71	4319678.98	0.00649	411.4	648.69	1.5	ANNUAL	ALL	5
506854.64	4319686.69	0.00628	411.42	648.69	1.5	ANNUAL	ALL	5
506871.57	4319694.4	0.00605	411.36	648.69	1.5	ANNUAL	ALL	5
506888.5	4319702.11	0.00581	411.07	648.69	1.5	ANNUAL	ALL	5
506905.42	4319709.82	0.00556	410.93	648.69	1.5	ANNUAL	ALL	5
506922.35	4319717.53	0.0053	410.76	648.69	1.5	ANNUAL	ALL	5
507006.99	4319756.07	0.00396	409.92	648.69	1.5	ANNUAL	ALL	5
507023.92	4319763.78	0.0037	409.47	648.69	1.5	ANNUAL	ALL	5
507047.76	4319788.75	0.00331	409.38	648.69	1.5	ANNUAL	ALL	5
507054.68	4319806.01	0.00316	409.45	648.69	1.5	ANNUAL	ALL	5
507061.6	4319823.28	0.003	409.47	648.69	1.5	ANNUAL	ALL	5
507068.52	4319840.54	0.00283	409.38	648.69	1.5	ANNUAL	ALL	5
507075.44	4319857.81	0.00266	409.19	648.69	1.5	ANNUAL	ALL	5
507082.36	4319875.07	0.00248	408.85	648.69	1.5	ANNUAL	ALL	5
507089.28	4319892.34	0.00231	408.66	648.69	1.5	ANNUAL	ALL	5
507096.2	4319909.6	0.00215	408.51	648.69	1.5	ANNUAL	ALL	5
507103.12	4319926.87	0.00199	408.47	648.69	1.5	ANNUAL	ALL	5
507110.03	4319944.13	0.00183	408.5	648.69	1.5	ANNUAL	ALL	5
507116.95	4319961.4	0.00169	408.54	445.92	1.5	ANNUAL	ALL	5
507123.87	4319978.66	0.00156	408.45	445.92	1.5	ANNUAL	ALL	5
507130.79	4319995.93	0.00143	408.32	445.92	1.5	ANNUAL	ALL	5
507137.71	4320013.19	0.00132	408.43	445.92	1.5	ANNUAL	ALL	5
506786.93	4319655.86	0.00705	412.57	648.69	1.5	ANNUAL	ALL	5
506768.24	4319655	0.00737	412.66	648.69	1.5	ANNUAL	ALL	5
506749.54	4319654.13	0.00768	412.48	648.69	1.5	ANNUAL	ALL	5
506730.85	4319653.27	0.008	412.96	648.69	1.5	ANNUAL	ALL	5
506807.32	4319588.65	0.0056	421.4	648.69	1.5	ANNUAL	ALL	5
506824.25	4319596.36	0.00551	421.09	648.69	1.5	ANNUAL	ALL	5
506841.17	4319604.06	0.00542	419.7	648.69	1.5	ANNUAL	ALL	5
506858.1	4319611.77	0.0053	417.39	648.69	1.5	ANNUAL	ALL	5
506875.03	4319619.48	0.00516	415.22	648.69	1.5	ANNUAL	ALL	5
506891.96	4319627.19	0.00501	413.58	648.69	1.5	ANNUAL	ALL	5
506908.88	4319634.9	0.00485	412.57	648.69	1.5	ANNUAL	ALL	5
506925.81	4319642.61	0.00469	411.99	648.69	1.5	ANNUAL	ALL	5
506942.74	4319650.31	0.00453	411.32	648.69	1.5	ANNUAL	ALL	5
507044.3	4319696.56	0.00344	409.32	648.69	1.5	ANNUAL	ALL	5
507061.23	4319704.27	0.00325	409.4	648.69	1.5	ANNUAL	ALL	5
507078.16	4319711.98	0.00307	409.48	648.69	1.5	ANNUAL	ALL	5
507102	4319736.95	0.0028	409.58	648.69	1.5	ANNUAL	ALL	5
507108.92	4319754.22	0.0027	409.54	648.69	1.5	ANNUAL	ALL	5
507115.84	4319771.48	0.00258	409.4	648.69	1.5	ANNUAL	ALL	5
507122.76	4319788.75	0.00246	409.31	648.69	1.5	ANNUAL	ALL	5
507129.68	4319806.01	0.00234	409.22	648.69	1.5	ANNUAL	ALL	5
507136.6	4319823.28	0.00221	409.08	648.69	1.5	ANNUAL	ALL	5
507143.52	4319840.54	0.00208	408.99	648.69	1.5	ANNUAL	ALL	5
507150.44	4319857.81	0.00195	408.63	648.69	1.5	ANNUAL	ALL	5
507157.36	4319875.07	0.00183	408.12	648.69	1.5	ANNUAL	ALL	5
507164.28	4319892.34	0.00171	407.93	445.79	1.5	ANNUAL	ALL	5
507171.2	4319909.6	0.00159	407.81	445.88	1.5	ANNUAL	ALL	5
507178.12	4319926.87	0.00148	407.74	445.92	1.5	ANNUAL	ALL	5
507185.03	4319944.13	0.00137	407.67	445.92	1.5	ANNUAL	ALL	5
507191.95	4319961.4	0.00127	407.61	445.92	1.5	ANNUAL	ALL	5
507198.87	4319978.66	0.00118	407.48	445.92	1.5	ANNUAL	ALL	5

507205.79	4319995.93	0.00109	407.32	445.92	1.5	ANNUAL	ALL	5
507212.71	4320013.19	0.00101	407.22	445.92	1.5	ANNUAL	ALL	5
506790.39	4319580.94	0.00568	421.61	648.69	1.5	ANNUAL	ALL	5
506771.7	4319580.08	0.00588	421.65	648.69	1.5	ANNUAL	ALL	5
506753	4319579.21	0.00605	422.3	648.69	1.5	ANNUAL	ALL	5
506734.31	4319578.35	0.00619	424.74	648.69	1.5	ANNUAL	ALL	5
506655.11	4320009.77	0.03303	415.49	648.69	1.5	ANNUAL	ALL	5
506635.7	4320009.98	0.04285	416.51	648.69	1.5	ANNUAL	ALL	5
506616.29	4320010.2	0.05683	417.44	648.69	1.5	ANNUAL	ALL	5
506596.88	4320010.42	0.07713	418.06	648.69	1.5	ANNUAL	ALL	5
506577.47	4320010.63	0.10813	419.08	648.69	1.5	ANNUAL	ALL	5
506558.06	4320010.85	0.15293	421.03	648.69	1.5	ANNUAL	ALL	5
506538.65	4320011.06	0.20579	422.45	648.69	1.5	ANNUAL	ALL	5
506519.24	4320011.28	0.24738	423.11	648.69	1.5	ANNUAL	ALL	5
506499.83	4320011.5	0.2657	423.16	648.69	1.5	ANNUAL	ALL	5
506480.42	4320011.71	0.26892	423.21	648.69	1.5	ANNUAL	ALL	5
506693.72	4319990.59	0.02241	414.73	648.69	1.5	ANNUAL	ALL	5
506674.31	4319990.8	0.02759	414.94	648.69	1.5	ANNUAL	ALL	5
506654.9	4319991.02	0.03446	415.38	648.69	1.5	ANNUAL	ALL	5
506635.49	4319991.24	0.04392	416.6	648.69	1.5	ANNUAL	ALL	5
506616.08	4319991.45	0.05679	417.71	648.69	1.5	ANNUAL	ALL	5
506596.67	4319991.67	0.07413	418.13	648.69	1.5	ANNUAL	ALL	5
506577.26	4319991.88	0.09782	418.76	648.69	1.5	ANNUAL	ALL	5
506557.85	4319992.1	0.12888	420.12	648.69	1.5	ANNUAL	ALL	5
506538.44	4319992.31	0.16022	420.96	648.69	1.5	ANNUAL	ALL	5
506519.03	4319992.53	0.18425	421.4	648.69	1.5	ANNUAL	ALL	5
506499.62	4319992.75	0.195	421.69	648.69	1.5	ANNUAL	ALL	5
506480.21	4319992.96	0.19426	422.04	648.69	1.5	ANNUAL	ALL	5
506693.51	4319971.84	0.02331	414.75	648.69	1.5	ANNUAL	ALL	5
506674.1	4319972.06	0.02833	415.05	648.69	1.5	ANNUAL	ALL	5
506654.69	4319972.27	0.03479	415.46	648.69	1.5	ANNUAL	ALL	5
506635.28	4319972.49	0.04336	416.77	648.69	1.5	ANNUAL	ALL	5
506615.87	4319972.7	0.05437	417.86	648.69	1.5	ANNUAL	ALL	5
506596.46	4319972.92	0.06804	417.99	648.69	1.5	ANNUAL	ALL	5
506577.05	4319973.13	0.0848	418.24	648.69	1.5	ANNUAL	ALL	5
506557.64	4319973.35	0.10404	418.86	648.69	1.5	ANNUAL	ALL	5
506538.23	4319973.57	0.12292	419.45	648.69	1.5	ANNUAL	ALL	5
506518.82	4319973.78	0.1372	420	648.69	1.5	ANNUAL	ALL	5
506499.41	4319974	0.14332	420.53	648.69	1.5	ANNUAL	ALL	5
506480	4319974.21	0.14146	421.06	648.69	1.5	ANNUAL	ALL	5
506693.31	4319953.09	0.02364	414.83	648.69	1.5	ANNUAL	ALL	5
506673.9	4319953.31	0.02832	415.22	648.69	1.5	ANNUAL	ALL	5
506654.49	4319953.52	0.0341	415.5	648.69	1.5	ANNUAL	ALL	5
506635.08	4319953.74	0.04137	416.37	648.69	1.5	ANNUAL	ALL	5
506615.67	4319953.95	0.05022	417.07	648.69	1.5	ANNUAL	ALL	5
506596.26	4319954.17	0.06052	417.2	648.69	1.5	ANNUAL	ALL	5
506576.85	4319954.39	0.07226	417.66	648.69	1.5	ANNUAL	ALL	5
506557.44	4319954.6	0.08459	418.46	648.69	1.5	ANNUAL	ALL	5
506538.03	4319954.82	0.0957	419.14	648.69	1.5	ANNUAL	ALL	5
506518.62	4319955.03	0.10373	419.76	648.69	1.5	ANNUAL	ALL	5
506499.21	4319955.25	0.10693	420.33	648.69	1.5	ANNUAL	ALL	5
506479.8	4319955.46	0.10489	420.76	648.69	1.5	ANNUAL	ALL	5
506693.1	4319934.34	0.02345	414.86	648.69	1.5	ANNUAL	ALL	5
506673.69	4319934.56	0.02765	415.28	648.69	1.5	ANNUAL	ALL	5
506654.28	4319934.77	0.03263	415.39	648.69	1.5	ANNUAL	ALL	5
506634.87	4319934.99	0.03859	415.85	648.69	1.5	ANNUAL	ALL	5
506615.46	4319935.2	0.04548	416.27	648.69	1.5	ANNUAL	ALL	5
506596.05	4319935.42	0.05314	416.53	648.69	1.5	ANNUAL	ALL	5
506576.64	4319935.64	0.0614	417.29	648.69	1.5	ANNUAL	ALL	5
506557.23	4319935.85	0.06952	418.38	648.69	1.5	ANNUAL	ALL	5
506537.82	4319936.07	0.07627	419.17	648.69	1.5	ANNUAL	ALL	5
506518.41	4319936.28	0.08073	419.81	648.69	1.5	ANNUAL	ALL	5
506499	4319936.5	0.08204	420.34	648.69	1.5	ANNUAL	ALL	5
506479.59	4319936.72	0.08003	420.62	648.69	1.5	ANNUAL	ALL	5
506692.89	4319915.59	0.02282	414.75	648.69	1.5	ANNUAL	ALL	5
506673.48	4319915.81	0.02646	414.94	648.69	1.5	ANNUAL	ALL	5
506654.07	4319916.02	0.0306	414.79	648.69	1.5	ANNUAL	ALL	5
506634.66	4319916.24	0.03543	415.3	648.69	1.5	ANNUAL	ALL	5
506615.25	4319916.46	0.04087	416.09	648.69	1.5	ANNUAL	ALL	5
506595.84	4319916.67	0.04667	416.92	648.69	1.5	ANNUAL	ALL	5
506576.43	4319916.89	0.0525	417.89	648.69	1.5	ANNUAL	ALL	5
506557.02	4319917.1	0.05778	418.8	648.69	1.5	ANNUAL	ALL	5
506537.61	4319917.32	0.06186	419.34	648.69	1.5	ANNUAL	ALL	5
506518.2	4319917.54	0.06428	419.67	648.69	1.5	ANNUAL	ALL	5
506498.79	4319917.75	0.06466	419.94	648.69	1.5	ANNUAL	ALL	5
506479.38	4319917.97	0.0629	420.22	648.69	1.5	ANNUAL	ALL	5
506692.68	4319896.84	0.02187	414.39	648.69	1.5	ANNUAL	ALL	5
506673.27	4319897.06	0.02495	414.44	648.69	1.5	ANNUAL	ALL	5
506653.86	4319897.28	0.02839	414.4	648.69	1.5	ANNUAL	ALL	5
506634.45	4319897.49	0.03228	415.09	648.69	1.5	ANNUAL	ALL	5
506615.04	4319897.71	0.03651	416.08	648.69	1.5	ANNUAL	ALL	5
506595.63	4319897.92	0.04081	417.04	648.69	1.5	ANNUAL	ALL	5
506576.22	4319898.14	0.04489	417.93	648.69	1.5	ANNUAL	ALL	5
506556.81	4319898.35	0.04833	418.5	648.69	1.5	ANNUAL	ALL	5

506537.4	4319898.57	0.05086	419.17	648.69	1.5	ANNUAL	ALL	5
506517.99	4319898.79	0.05212	419.46	648.69	1.5	ANNUAL	ALL	5
506498.58	4319899	0.05191	419.37	648.69	1.5	ANNUAL	ALL	5
506479.17	4319899.22	0.05024	419.26	648.69	1.5	ANNUAL	ALL	5
506692.47	4319878.1	0.0207	413.87	648.69	1.5	ANNUAL	ALL	5
506673.06	4319878.31	0.02328	413.83	648.69	1.5	ANNUAL	ALL	5
506653.65	4319878.53	0.02613	414.15	648.69	1.5	ANNUAL	ALL	5
506634.24	4319878.74	0.02927	415.14	648.69	1.5	ANNUAL	ALL	5
506614.83	4319878.96	0.03253	416.18	648.69	1.5	ANNUAL	ALL	5
506595.42	4319879.17	0.03567	416.93	648.69	1.5	ANNUAL	ALL	5
506576.01	4319879.39	0.0385	417.47	648.69	1.5	ANNUAL	ALL	5
506556.6	4319879.61	0.04072	417.52	648.69	1.5	ANNUAL	ALL	5
506537.19	4319879.82	0.04234	418.71	648.69	1.5	ANNUAL	ALL	5
506517.78	4319880.04	0.04293	419.19	648.69	1.5	ANNUAL	ALL	5
506498.37	4319880.25	0.04239	418.6	648.69	1.5	ANNUAL	ALL	5
506478.96	4319880.47	0.04074	417.72	648.69	1.5	ANNUAL	ALL	5
506692.06	4319840.6	0.01812	412.81	648.69	1.5	ANNUAL	ALL	5
506672.65	4319840.81	0.01992	413	648.69	1.5	ANNUAL	ALL	5
506653.24	4319841.03	0.0218	413.28	648.69	1.5	ANNUAL	ALL	5
506633.83	4319841.24	0.02371	413.73	648.69	1.5	ANNUAL	ALL	5
506614.42	4319841.46	0.02557	414.28	648.69	1.5	ANNUAL	ALL	5
506595.01	4319841.68	0.02727	414.87	648.69	1.5	ANNUAL	ALL	5
506575.6	4319841.89	0.02868	415.47	648.69	1.5	ANNUAL	ALL	5
506556.19	4319842.11	0.02972	416.29	648.69	1.5	ANNUAL	ALL	5
506536.78	4319842.32	0.03018	416.45	648.69	1.5	ANNUAL	ALL	5
506517.37	4319842.54	0.03007	416.29	648.69	1.5	ANNUAL	ALL	5
506497.96	4319842.76	0.02937	415.98	648.69	1.5	ANNUAL	ALL	5
506478.55	4319842.97	0.02812	415.58	648.69	1.5	ANNUAL	ALL	5
506691.64	4319803.1	0.01567	412.64	648.69	1.5	ANNUAL	ALL	5
506672.23	4319803.32	0.0169	412.8	648.69	1.5	ANNUAL	ALL	5
506652.82	4319803.53	0.01812	412.98	648.69	1.5	ANNUAL	ALL	5
506633.41	4319803.75	0.0193	413.2	648.69	1.5	ANNUAL	ALL	5
506614	4319803.96	0.02037	413.45	648.69	1.5	ANNUAL	ALL	5
506594.59	4319804.18	0.02126	413.72	648.69	1.5	ANNUAL	ALL	5
506575.18	4319804.39	0.02192	413.97	648.69	1.5	ANNUAL	ALL	5
506555.77	4319804.61	0.02226	413.91	648.69	1.5	ANNUAL	ALL	5
506536.36	4319804.83	0.02232	414.24	648.69	1.5	ANNUAL	ALL	5
506516.95	4319805.04	0.02204	414.51	648.69	1.5	ANNUAL	ALL	5
506497.54	4319805.26	0.02143	414.66	648.69	1.5	ANNUAL	ALL	5
506478.13	4319805.47	0.02053	414.8	648.69	1.5	ANNUAL	ALL	5
506691.22	4319765.6	0.01346	412.45	648.69	1.5	ANNUAL	ALL	5
506671.81	4319765.82	0.0143	412.57	648.69	1.5	ANNUAL	ALL	5
506652.4	4319766.03	0.01511	412.82	648.69	1.5	ANNUAL	ALL	5
506632.99	4319766.25	0.01584	413.08	648.69	1.5	ANNUAL	ALL	5
506613.58	4319766.47	0.01646	413.26	648.69	1.5	ANNUAL	ALL	5
506594.17	4319766.68	0.01692	413.39	648.69	1.5	ANNUAL	ALL	5
506574.76	4319766.9	0.0172	413.53	648.69	1.5	ANNUAL	ALL	5
506555.35	4319767.11	0.01725	413.39	648.69	1.5	ANNUAL	ALL	5
506535.94	4319767.33	0.01714	413.88	648.69	1.5	ANNUAL	ALL	5
506516.53	4319767.54	0.01682	414.27	648.69	1.5	ANNUAL	ALL	5
506497.12	4319767.76	0.01629	414.47	648.69	1.5	ANNUAL	ALL	5
506477.71	4319767.98	0.0156	414.66	648.69	1.5	ANNUAL	ALL	5
506690.8	4319728.1	0.01156	412.38	648.69	1.5	ANNUAL	ALL	5
506671.39	4319728.32	0.01214	412.57	648.69	1.5	ANNUAL	ALL	5
506651.98	4319728.54	0.01268	412.91	648.69	1.5	ANNUAL	ALL	5
506632.57	4319728.75	0.01312	413.07	648.69	1.5	ANNUAL	ALL	5
506613.16	4319728.97	0.01347	413.22	648.69	1.5	ANNUAL	ALL	5
506593.75	4319729.18	0.01369	413.33	648.69	1.5	ANNUAL	ALL	5
506574.34	4319729.4	0.01377	413.35	648.69	1.5	ANNUAL	ALL	5
506554.93	4319729.62	0.01369	413.26	648.69	1.5	ANNUAL	ALL	5
506535.52	4319729.83	0.01351	413.83	648.69	1.5	ANNUAL	ALL	5
506516.11	4319730.05	0.01318	414.05	648.69	1.5	ANNUAL	ALL	5
506496.7	4319730.26	0.01273	414.08	648.69	1.5	ANNUAL	ALL	5
506477.29	4319730.48	0.01219	414.2	648.69	1.5	ANNUAL	ALL	5
506709.38	4319652.89	0.00836	413.77	648.69	1.5	ANNUAL	ALL	5
506689.97	4319653.11	0.00868	414.5	648.69	1.5	ANNUAL	ALL	5
506670.56	4319653.32	0.00896	415.36	648.69	1.5	ANNUAL	ALL	5
506651.15	4319653.54	0.00918	416.15	648.69	1.5	ANNUAL	ALL	5
506631.74	4319653.76	0.00932	416.08	648.69	1.5	ANNUAL	ALL	5
506612.33	4319653.97	0.00938	415.34	648.69	1.5	ANNUAL	ALL	5
506592.92	4319654.19	0.00936	414.4	648.69	1.5	ANNUAL	ALL	5
506573.51	4319654.4	0.00926	413.73	648.69	1.5	ANNUAL	ALL	5
506554.1	4319654.62	0.0091	413.58	648.69	1.5	ANNUAL	ALL	5
506534.69	4319654.84	0.0089	414.03	648.69	1.5	ANNUAL	ALL	5
506515.28	4319655.05	0.00864	414.6	648.69	1.5	ANNUAL	ALL	5
506495.87	4319655.27	0.00834	414.84	648.69	1.5	ANNUAL	ALL	5
506476.46	4319655.48	0.008	414.63	648.69	1.5	ANNUAL	ALL	5
506708.55	4319577.9	0.00628	429.41	648.69	1.5	ANNUAL	ALL	5
506689.14	4319578.11	0.00635	431.33	648.69	1.5	ANNUAL	ALL	5
506669.73	4319578.33	0.00648	430.78	648.69	1.5	ANNUAL	ALL	5
506650.32	4319578.55	0.00671	426.07	648.69	1.5	ANNUAL	ALL	5
506630.91	4319578.76	0.00674	422.68	648.69	1.5	ANNUAL	ALL	5
506611.5	4319578.98	0.00678	420.37	648.69	1.5	ANNUAL	ALL	5
506592.09	4319579.19	0.0067	418.39	648.69	1.5	ANNUAL	ALL	5

506572.68	4319579.41	0.00658	416.44	648.69	1.5	ANNUAL	ALL	5
506553.27	4319579.62	0.00641	415.22	648.69	1.5	ANNUAL	ALL	5
506533.86	4319579.84	0.00624	415.3	648.69	1.5	ANNUAL	ALL	5
506514.45	4319580.06	0.00605	416.28	648.69	1.5	ANNUAL	ALL	5
506495.04	4319580.27	0.00585	417.59	648.69	1.5	ANNUAL	ALL	5
506475.63	4319580.49	0.00563	418.51	648.69	1.5	ANNUAL	ALL	5
506462.36	4320012	0.26291	423.29	648.69	1.5	ANNUAL	ALL	5
506426.41	4320012.58	0.22437	423.56	648.69	1.5	ANNUAL	ALL	5
506390.47	4320013.15	0.14173	423.51	648.69	1.5	ANNUAL	ALL	5
506462.06	4319993.25	0.18704	422.23	648.69	1.5	ANNUAL	ALL	5
506426.11	4319993.83	0.15302	422.7	648.69	1.5	ANNUAL	ALL	5
506390.17	4319994.41	0.09678	422.64	648.69	1.5	ANNUAL	ALL	5
506461.76	4319974.51	0.13436	421.5	648.69	1.5	ANNUAL	ALL	5
506425.81	4319975.08	0.10795	421.96	648.69	1.5	ANNUAL	ALL	5
506389.87	4319975.66	0.07106	421.59	648.69	1.5	ANNUAL	ALL	5
506461.46	4319955.76	0.09964	420.82	648.69	1.5	ANNUAL	ALL	5
506443.48	4319956.05	0.0916	420.66	648.69	1.5	ANNUAL	ALL	5
506407.54	4319956.62	0.06874	420.14	648.69	1.5	ANNUAL	ALL	5
506371.6	4319957.2	0.04291	419.38	648.69	1.5	ANNUAL	ALL	5
506461.15	4319937.01	0.07623	420.1	648.69	1.5	ANNUAL	ALL	5
506425.21	4319937.59	0.06141	418.55	648.69	1.5	ANNUAL	ALL	5
506389.27	4319938.16	0.04301	417.87	648.69	1.5	ANNUAL	ALL	5
506371.3	4319938.45	0.03436	417.56	648.69	1.5	ANNUAL	ALL	5
506460.85	4319918.26	0.05926	418.94	648.69	1.5	ANNUAL	ALL	5
506424.91	4319918.84	0.04795	417.43	648.69	1.5	ANNUAL	ALL	5
506388.97	4319919.42	0.03472	416.96	648.69	1.5	ANNUAL	ALL	5
506460.55	4319899.52	0.04711	417.78	648.69	1.5	ANNUAL	ALL	5
506424.61	4319900.09	0.0385	416.39	648.69	1.5	ANNUAL	ALL	5
506406.64	4319900.38	0.03363	416.22	648.69	1.5	ANNUAL	ALL	5
506370.69	4319900.96	0.0242	416.77	648.69	1.5	ANNUAL	ALL	5
506460.25	4319880.77	0.0382	416.66	648.69	1.5	ANNUAL	ALL	5
506424.31	4319881.34	0.0316	415.5	648.69	1.5	ANNUAL	ALL	5
506388.37	4319881.92	0.0244	416.37	648.69	1.5	ANNUAL	ALL	5
506459.65	4319843.27	0.02646	415.04	648.69	1.5	ANNUAL	ALL	5
506423.71	4319843.85	0.02264	415.85	648.69	1.5	ANNUAL	ALL	5
506387.76	4319844.43	0.01818	416.27	648.69	1.5	ANNUAL	ALL	5
506459.05	4319805.78	0.01944	415.11	648.69	1.5	ANNUAL	ALL	5
506441.08	4319806.07	0.01823	415.31	648.69	1.5	ANNUAL	ALL	5
506405.13	4319806.64	0.01548	415.75	648.69	1.5	ANNUAL	ALL	5
506369.19	4319807.22	0.01261	416.33	648.69	1.5	ANNUAL	ALL	5
506458.45	4319768.28	0.01479	414.77	648.69	1.5	ANNUAL	ALL	5
506422.5	4319768.86	0.01304	415.1	648.69	1.5	ANNUAL	ALL	5
506386.56	4319769.44	0.01114	415.71	648.69	1.5	ANNUAL	ALL	5
506457.85	4319730.79	0.01158	414.13	648.69	1.5	ANNUAL	ALL	5
506421.9	4319731.36	0.01035	414.84	648.69	1.5	ANNUAL	ALL	5
506385.96	4319731.94	0.00907	416.51	648.69	1.5	ANNUAL	ALL	5
506456.64	4319655.8	0.00764	414.6	648.69	1.5	ANNUAL	ALL	5
506438.67	4319656.08	0.0073	414.83	648.69	1.5	ANNUAL	ALL	5
506402.73	4319656.66	0.00662	415.92	648.69	1.5	ANNUAL	ALL	5
506366.78	4319657.24	0.00593	417.46	648.69	1.5	ANNUAL	ALL	5
506455.44	4319580.81	0.00541	418.18	648.69	1.5	ANNUAL	ALL	5
506419.5	4319581.38	0.00499	416.91	648.69	1.5	ANNUAL	ALL	5
506383.55	4319581.96	0.00458	417.14	648.69	1.5	ANNUAL	ALL	5
506339.84	4320036.71	0.05604	423.71	648.69	1.5	ANNUAL	ALL	5
506340.14	4320021.59	0.04676	422.79	648.69	1.5	ANNUAL	ALL	5
506358.5	4320000.97	0.05458	421.95	648.69	1.5	ANNUAL	ALL	5
506337.21	4320053.17	0.06498	424.38	648.69	1.5	ANNUAL	ALL	5
506321.48	4320023.45	0.0349	421.79	648.69	1.5	ANNUAL	ALL	5
506344.49	4319988.5	0.03711	420.6	648.69	1.5	ANNUAL	ALL	5
506318.55	4320055.04	0.04634	422.88	648.69	1.5	ANNUAL	ALL	5
506302.83	4320025.32	0.02739	420.6	648.69	1.5	ANNUAL	ALL	5
506312.13	4319996.65	0.02386	419.37	648.69	1.5	ANNUAL	ALL	5
506330.49	4319976.03	0.02621	419.02	648.69	1.5	ANNUAL	ALL	5
506299.9	4320056.9	0.03475	421.61	648.69	1.5	ANNUAL	ALL	5
506284.17	4320027.18	0.02184	419.66	648.69	1.5	ANNUAL	ALL	5
506293.48	4319998.51	0.01896	418.75	648.69	1.5	ANNUAL	ALL	5
506316.49	4319963.56	0.0192	417.68	648.69	1.5	ANNUAL	ALL	5
506343.89	4319951.01	0.02609	417.77	648.69	1.5	ANNUAL	ALL	5
506281.24	4320058.77	0.02701	420.75	648.69	1.5	ANNUAL	ALL	5
506265.51	4320029.05	0.01773	419.36	648.69	1.5	ANNUAL	ALL	5
506274.82	4320000.38	0.01558	418.52	648.69	1.5	ANNUAL	ALL	5
506284.13	4319971.71	0.01375	418.01	648.69	1.5	ANNUAL	ALL	5
506302.49	4319951.1	0.01474	417.58	648.69	1.5	ANNUAL	ALL	5
506329.89	4319938.54	0.01934	416.68	648.69	1.5	ANNUAL	ALL	5
506357.29	4319925.98	0.02551	417.2	648.69	1.5	ANNUAL	ALL	5
506262.58	4320060.63	0.02156	420.17	648.69	1.5	ANNUAL	ALL	5
506246.86	4320030.91	0.0147	419.28	648.69	1.5	ANNUAL	ALL	5
506256.16	4320002.24	0.01309	418.63	648.69	1.5	ANNUAL	ALL	5
506265.47	4319973.57	0.01157	418.14	648.69	1.5	ANNUAL	ALL	5
506288.48	4319938.63	0.01168	417.9	648.69	1.5	ANNUAL	ALL	5
506315.89	4319926.07	0.01501	417.34	648.69	1.5	ANNUAL	ALL	5
506343.29	4319913.51	0.01953	417.17	648.69	1.5	ANNUAL	ALL	5
506243.93	4320062.5	0.0174	420.36	648.69	1.5	ANNUAL	ALL	5
506234.18	4320014.35	0.01163	418.99	648.69	1.5	ANNUAL	ALL	5

506244.82	4319981.58	0.01019	418.48	648.69	1.5	ANNUAL	ALL	5
506255.46	4319948.82	0.009	418.36	648.69	1.5	ANNUAL	ALL	5
506292.1	4319918.08	0.01093	417.84	648.69	1.5	ANNUAL	ALL	5
506323.42	4319903.73	0.01455	417.52	648.69	1.5	ANNUAL	ALL	5
506354.73	4319889.38	0.01884	417.07	648.69	1.5	ANNUAL	ALL	5
506223.54	4320047.12	0.0129	419.63	648.69	1.5	ANNUAL	ALL	5
506226.99	4320081.62	0.01575	421.12	648.69	1.5	ANNUAL	ALL	5
506191.4	4320034.92	0.0091	419.62	648.69	1.5	ANNUAL	ALL	5
506201.74	4320003.06	0.0083	419.31	648.69	1.5	ANNUAL	ALL	5
506212.09	4319971.21	0.0074	418.72	648.69	1.5	ANNUAL	ALL	5
506222.43	4319939.35	0.00659	418.64	648.69	1.5	ANNUAL	ALL	5
506248	4319900.52	0.0066	418.19	648.69	1.5	ANNUAL	ALL	5
506278.45	4319886.57	0.00827	417.75	648.69	1.5	ANNUAL	ALL	5
506308.89	4319872.62	0.01066	417.38	648.69	1.5	ANNUAL	ALL	5
506339.34	4319858.67	0.01342	417.1	648.69	1.5	ANNUAL	ALL	5
506187.96	4320068.1	0.01031	420.24	648.69	1.5	ANNUAL	ALL	5
506153.99	4320038.94	0.00697	419.79	648.69	1.5	ANNUAL	ALL	5
506164.15	4320007.66	0.0065	419.69	648.69	1.5	ANNUAL	ALL	5
506174.3	4319976.39	0.00592	419.54	648.69	1.5	ANNUAL	ALL	5
506184.46	4319945.11	0.00533	419.18	648.69	1.5	ANNUAL	ALL	5
506194.61	4319913.83	0.00482	419.36	648.69	1.5	ANNUAL	ALL	5
506219.72	4319875.71	0.00481	418.64	648.69	1.5	ANNUAL	ALL	5
506249.61	4319862.01	0.00581	418.05	648.69	1.5	ANNUAL	ALL	5
506279.51	4319848.31	0.0073	417.82	648.69	1.5	ANNUAL	ALL	5
506309.4	4319834.61	0.00913	417.33	648.69	1.5	ANNUAL	ALL	5
506339.3	4319820.92	0.01099	416.71	648.69	1.5	ANNUAL	ALL	5
506150.64	4320071.83	0.00772	420.17	648.69	1.5	ANNUAL	ALL	5
506116.61	4320042.87	0.00546	420.74	648.69	1.5	ANNUAL	ALL	5
506126.64	4320012	0.00518	420.42	648.69	1.5	ANNUAL	ALL	5
506136.66	4319981.12	0.00482	420.2	648.69	1.5	ANNUAL	ALL	5
506146.69	4319950.24	0.00441	420.18	648.69	1.5	ANNUAL	ALL	5
506156.71	4319919.37	0.00401	420.16	648.69	1.5	ANNUAL	ALL	5
506166.74	4319888.49	0.00366	419.93	648.69	1.5	ANNUAL	ALL	5
506191.52	4319850.86	0.00364	419.41	648.69	1.5	ANNUAL	ALL	5
506221.03	4319837.33	0.00429	418.88	648.69	1.5	ANNUAL	ALL	5
506250.54	4319823.81	0.00527	419.16	648.69	1.5	ANNUAL	ALL	5
506280.05	4319810.29	0.00652	418.95	648.69	1.5	ANNUAL	ALL	5
506309.57	4319796.77	0.00789	418.13	648.69	1.5	ANNUAL	ALL	5
506339.08	4319783.25	0.00916	417.28	648.69	1.5	ANNUAL	ALL	5
506113.33	4320075.56	0.00593	420.9	648.69	1.5	ANNUAL	ALL	5
506079.61	4320045.66	0.00437	421.34	648.69	1.5	ANNUAL	ALL	5
506090.25	4320012.89	0.00417	421.24	648.69	1.5	ANNUAL	ALL	5
506100.88	4319980.13	0.00391	420.91	648.69	1.5	ANNUAL	ALL	5
506111.52	4319947.36	0.00358	421.04	648.69	1.5	ANNUAL	ALL	5
506122.16	4319914.59	0.00324	421.74	648.69	1.5	ANNUAL	ALL	5
506132.8	4319881.83	0.00297	421.21	648.69	1.5	ANNUAL	ALL	5
506143.44	4319849.06	0.00277	420.57	648.69	1.5	ANNUAL	ALL	5
506164.42	4319825.5	0.00284	420.67	648.69	1.5	ANNUAL	ALL	5
506195.73	4319811.15	0.00335	419.84	648.69	1.5	ANNUAL	ALL	5
506227.05	4319796.8	0.00407	420.51	648.69	1.5	ANNUAL	ALL	5
506258.37	4319782.45	0.005	421.19	648.69	1.5	ANNUAL	ALL	5
506289.69	4319768.1	0.00611	420.94	648.69	1.5	ANNUAL	ALL	5
506321.01	4319753.75	0.00722	419.57	648.69	1.5	ANNUAL	ALL	5
506352.33	4319739.4	0.00808	418.71	648.69	1.5	ANNUAL	ALL	5
506076.01	4320079.29	0.00471	421.14	648.69	1.5	ANNUAL	ALL	5
506004.83	4320053.58	0.00298	422.25	648.69	1.5	ANNUAL	ALL	5
506015.18	4320021.72	0.00288	422.5	648.69	1.5	ANNUAL	ALL	5
506025.52	4319989.86	0.00273	423.75	648.69	1.5	ANNUAL	ALL	5
506035.86	4319958.01	0.00256	424.16	648.69	1.5	ANNUAL	ALL	5
506046.2	4319926.15	0.00241	422.95	648.69	1.5	ANNUAL	ALL	5
506056.55	4319894.3	0.00224	423.07	648.69	1.5	ANNUAL	ALL	5
506066.89	4319862.44	0.00205	424.23	648.69	1.5	ANNUAL	ALL	5
506077.23	4319830.59	0.0019	423.95	648.69	1.5	ANNUAL	ALL	5
506087.57	4319798.73	0.00177	424.2	648.69	1.5	ANNUAL	ALL	5
506107.97	4319775.83	0.0018	424.12	648.69	1.5	ANNUAL	ALL	5
506138.42	4319761.87	0.00205	422.99	648.69	1.5	ANNUAL	ALL	5
506168.87	4319747.92	0.0024	422.83	648.69	1.5	ANNUAL	ALL	5
506199.32	4319733.97	0.00277	425.54	648.69	1.5	ANNUAL	ALL	5
506229.77	4319720.02	0.00332	426.88	648.69	1.5	ANNUAL	ALL	5
506260.21	4319706.07	0.00409	424.36	648.69	1.5	ANNUAL	ALL	5
506290.66	4319692.12	0.00479	421.9	648.69	1.5	ANNUAL	ALL	5
506321.11	4319678.17	0.00538	420.36	648.69	1.5	ANNUAL	ALL	5
506001.39	4320086.75	0.00313	422.72	648.69	1.5	ANNUAL	ALL	5
505930.35	4320060.58	0.00215	423.95	648.69	1.5	ANNUAL	ALL	5
505940.99	4320027.82	0.0021	423.77	648.69	1.5	ANNUAL	ALL	5
505951.63	4319995.05	0.00203	423.87	648.69	1.5	ANNUAL	ALL	5
505962.27	4319962.29	0.00188	425.52	648.69	1.5	ANNUAL	ALL	5
505972.91	4319929.52	0.00179	424.93	648.69	1.5	ANNUAL	ALL	5
505983.54	4319896.75	0.00171	424.47	648.69	1.5	ANNUAL	ALL	5
505994.18	4319863.99	0.00159	425.38	648.69	1.5	ANNUAL	ALL	5
506004.82	4319831.22	0.00148	426.88	648.69	1.5	ANNUAL	ALL	5
506015.46	4319798.46	0.00136	427.78	648.69	1.5	ANNUAL	ALL	5
506026.1	4319765.69	0.00123	428.83	648.69	1.5	ANNUAL	ALL	5
506052.39	4319725.75	0.00115	429.84	648.69	1.5	ANNUAL	ALL	5

506083.71	4319711.4	0.00127	429.18	648.69	1.5	ANNUAL	ALL	5
506115.03	4319697.05	0.00153	426.26	648.69	1.5	ANNUAL	ALL	5
506146.35	4319682.7	0.00185	425.21	648.69	1.5	ANNUAL	ALL	5
506177.67	4319668.35	0.00217	428.25	648.69	1.5	ANNUAL	ALL	5
506208.99	4319654	0.00262	427.47	648.69	1.5	ANNUAL	ALL	5
506240.31	4319639.65	0.00314	424.32	648.69	1.5	ANNUAL	ALL	5
506271.63	4319625.3	0.00358	422.52	648.69	1.5	ANNUAL	ALL	5
506302.94	4319610.95	0.00396	420.73	648.69	1.5	ANNUAL	ALL	5
506334.26	4319596.6	0.00421	418.2	648.69	1.5	ANNUAL	ALL	5
505926.76	4320094.22	0.0022	425.25	648.69	1.5	ANNUAL	ALL	5
506339.08	4320071.65	0.08158	425.14	648.69	1.5	ANNUAL	ALL	5
506341.67	4320091.06	0.09965	425.96	648.69	1.5	ANNUAL	ALL	5
506344.26	4320110.47	0.11165	427.01	648.69	1.5	ANNUAL	ALL	5
506320.49	4320074.13	0.05716	423.68	648.69	1.5	ANNUAL	ALL	5
506323.08	4320093.54	0.06894	424.52	648.69	1.5	ANNUAL	ALL	5
506325.67	4320112.95	0.07785	425.34	648.69	1.5	ANNUAL	ALL	5
506301.91	4320076.61	0.0418	422.37	648.69	1.5	ANNUAL	ALL	5
506304.5	4320096.02	0.04937	423.12	648.69	1.5	ANNUAL	ALL	5
506307.09	4320115.43	0.05641	423.79	648.69	1.5	ANNUAL	ALL	5
506283.32	4320079.09	0.03179	421.47	648.69	1.5	ANNUAL	ALL	5
506285.91	4320098.5	0.03682	422.12	648.69	1.5	ANNUAL	ALL	5
506288.5	4320117.91	0.0417	422.67	648.69	1.5	ANNUAL	ALL	5
506264.74	4320081.57	0.02497	420.86	648.69	1.5	ANNUAL	ALL	5
506267.33	4320100.98	0.02836	421.55	648.69	1.5	ANNUAL	ALL	5
506269.92	4320120.39	0.03168	422.22	648.69	1.5	ANNUAL	ALL	5
506246.15	4320084.05	0.01986	421.08	648.69	1.5	ANNUAL	ALL	5
506248.74	4320103.46	0.02223	421.8	648.69	1.5	ANNUAL	ALL	5
506251.33	4320122.87	0.02456	422.53	648.69	1.5	ANNUAL	ALL	5
506230.16	4320105.94	0.01783	422.24	648.69	1.5	ANNUAL	ALL	5
506232.75	4320125.35	0.01946	423.18	648.69	1.5	ANNUAL	ALL	5
506190.4	4320091.49	0.01136	421.37	648.69	1.5	ANNUAL	ALL	5
506192.99	4320110.9	0.0123	422.36	648.69	1.5	ANNUAL	ALL	5
506195.58	4320130.31	0.01321	423.46	648.69	1.5	ANNUAL	ALL	5
506153.23	4320096.45	0.00843	421.24	648.69	1.5	ANNUAL	ALL	5
506155.82	4320115.86	0.00903	422.04	648.69	1.5	ANNUAL	ALL	5
506158.41	4320135.27	0.00962	422.9	648.69	1.5	ANNUAL	ALL	5
506116.06	4320101.41	0.00646	421.39	648.69	1.5	ANNUAL	ALL	5
506118.65	4320120.82	0.00687	421.93	648.69	1.5	ANNUAL	ALL	5
506121.24	4320140.23	0.00727	422.76	648.69	1.5	ANNUAL	ALL	5
506078.89	4320106.37	0.00509	421.62	648.69	1.5	ANNUAL	ALL	5
506081.48	4320125.78	0.00537	422.33	648.69	1.5	ANNUAL	ALL	5
506084.07	4320145.19	0.00565	423.03	648.69	1.5	ANNUAL	ALL	5
506004.54	4320116.29	0.00334	423.4	648.69	1.5	ANNUAL	ALL	5
506007.13	4320135.7	0.00348	424.35	648.69	1.5	ANNUAL	ALL	5
506009.72	4320155.11	0.00357	425.37	648.69	1.5	ANNUAL	ALL	5
505930.2	4320126.21	0.00232	425.31	648.69	1.5	ANNUAL	ALL	5
505932.79	4320145.62	0.00237	426.64	648.69	1.5	ANNUAL	ALL	5
505935.38	4320165.03	0.00246	427.33	648.69	1.5	ANNUAL	ALL	5
506198.66	4320148.44	0.01411	424.61	648.69	1.5	ANNUAL	ALL	5
506161.76	4320155.13	0.01028	423.83	648.69	1.5	ANNUAL	ALL	5
506124.86	4320161.81	0.00774	423.89	648.69	1.5	ANNUAL	ALL	5
506087.96	4320168.5	0.00601	424.15	648.69	1.5	ANNUAL	ALL	5
506014.16	4320181.88	0.00384	425.61	648.69	1.5	ANNUAL	ALL	5
505938.64	4320185.76	0.00258	427.46	648.69	1.5	ANNUAL	ALL	5
506344.82	4320135.08	0.11297	427.59	648.69	1.5	ANNUAL	ALL	5
506326.08	4320134.33	0.0813	425.79	648.69	1.5	ANNUAL	ALL	5
506307.35	4320133.58	0.05949	424.14	648.69	1.5	ANNUAL	ALL	5
506287.95	4320140.61	0.04403	423.08	648.69	1.5	ANNUAL	ALL	5
506269.26	4320139.17	0.03306	422.81	648.69	1.5	ANNUAL	ALL	5
506345.96	4320154.73	0.11006	427.51	648.69	1.5	ANNUAL	ALL	5
506353.06	4320174.9	0.11085	426.9	648.69	1.5	ANNUAL	ALL	5
506329.19	4320163.11	0.08294	426.17	648.69	1.5	ANNUAL	ALL	5
506336.29	4320183.28	0.08492	426.28	648.69	1.5	ANNUAL	ALL	5
506312.42	4320171.49	0.06354	424.99	648.69	1.5	ANNUAL	ALL	5
506308.57	4320151.86	0.06183	424.42	648.69	1.5	ANNUAL	ALL	5
506319.52	4320191.66	0.06601	425.54	648.69	1.5	ANNUAL	ALL	5
506295.65	4320179.87	0.05	424.38	648.69	1.5	ANNUAL	ALL	5
506291.8	4320160.24	0.04773	423.7	648.69	1.5	ANNUAL	ALL	5
506302.74	4320200.05	0.05184	425.22	648.69	1.5	ANNUAL	ALL	5
506278.87	4320188.26	0.03947	424.35	648.69	1.5	ANNUAL	ALL	5
506275.03	4320168.62	0.03747	423.75	648.69	1.5	ANNUAL	ALL	5
506285.97	4320208.43	0.04139	425.07	648.69	1.5	ANNUAL	ALL	5
506262.1	4320196.64	0.03115	424.97	648.69	1.5	ANNUAL	ALL	5
506258.26	4320177.01	0.0299	424.39	648.69	1.5	ANNUAL	ALL	5
506254.41	4320157.37	0.02776	423.71	648.69	1.5	ANNUAL	ALL	5
506269.2	4320216.81	0.03327	425.66	648.69	1.5	ANNUAL	ALL	5
506245.06	4320203.62	0.02481	426.83	648.69	1.5	ANNUAL	ALL	5
506240.66	4320181.18	0.02342	425.76	648.69	1.5	ANNUAL	ALL	5
506236.26	4320158.74	0.02193	424.49	648.69	1.5	ANNUAL	ALL	5
506252.43	4320225.19	0.02693	426.93	648.69	1.5	ANNUAL	ALL	5
506211.57	4320220.69	0.01718	428.51	648.69	1.5	ANNUAL	ALL	5
506207.3	4320198.88	0.01615	428.06	648.69	1.5	ANNUAL	ALL	5
506203.03	4320177.07	0.01513	426.92	648.69	1.5	ANNUAL	ALL	5
506218.88	4320241.96	0.01869	428.34	648.69	1.5	ANNUAL	ALL	5

506178.07	4320237.66	0.013	427.09	648.69	1.5	ANNUAL	ALL	5
506173.87	4320216.24	0.01238	426.2	648.69	1.5	ANNUAL	ALL	5
506169.68	4320194.82	0.01168	425.28	648.69	1.5	ANNUAL	ALL	5
506165.48	4320173.4	0.01099	424.43	648.69	1.5	ANNUAL	ALL	5
506185.34	4320258.72	0.01384	428.2	648.69	1.5	ANNUAL	ALL	5
506144.55	4320254.56	0.00995	427.51	648.69	1.5	ANNUAL	ALL	5
506140.41	4320233.41	0.00945	427.23	648.69	1.5	ANNUAL	ALL	5
506136.27	4320212.27	0.00895	426.66	648.69	1.5	ANNUAL	ALL	5
506132.12	4320191.13	0.00846	425.65	648.69	1.5	ANNUAL	ALL	5
506151.8	4320275.48	0.0106	428.15	648.69	1.5	ANNUAL	ALL	5
506110.88	4320270.67	0.00782	427.89	648.69	1.5	ANNUAL	ALL	5
506106.48	4320248.24	0.00734	428.89	648.69	1.5	ANNUAL	ALL	5
506102.09	4320225.8	0.00701	427.76	648.69	1.5	ANNUAL	ALL	5
506097.69	4320203.36	0.00666	426.38	648.69	1.5	ANNUAL	ALL	5
506118.25	4320292.25	0.0085	426.54	648.69	1.5	ANNUAL	ALL	5
506043.85	4320304.51	0.00525	427.6	648.69	1.5	ANNUAL	ALL	5
506039.58	4320282.7	0.00496	429.19	648.69	1.5	ANNUAL	ALL	5
506035.3	4320260.89	0.00475	429	648.69	1.5	ANNUAL	ALL	5
506031.03	4320239.07	0.00455	428.06	648.69	1.5	ANNUAL	ALL	5
506026.76	4320217.26	0.00436	426.61	648.69	1.5	ANNUAL	ALL	5
506051.16	4320325.78	0.00569	425.35	648.69	1.5	ANNUAL	ALL	5
505976.7	4320337.73	0.00394	422.9	648.69	1.5	ANNUAL	ALL	5
505972.31	4320315.29	0.00376	423.44	648.69	1.5	ANNUAL	ALL	5
505967.91	4320292.86	0.00359	423.75	648.69	1.5	ANNUAL	ALL	5
505963.52	4320270.42	0.00342	424.11	648.69	1.5	ANNUAL	ALL	5
505959.12	4320247.98	0.00324	424.65	648.69	1.5	ANNUAL	ALL	5
505954.72	4320225.54	0.00301	426.86	648.69	1.5	ANNUAL	ALL	5
505950.33	4320203.11	0.00282	427.57	648.69	1.5	ANNUAL	ALL	5
505984.07	4320359.3	0.00417	422.38	648.69	1.5	ANNUAL	ALL	5
506348.76	4320208.51	0.08333	424.93	648.69	1.5	ANNUAL	ALL	5
506363.71	4320238.99	0.06931	424.4	648.69	1.5	ANNUAL	ALL	5
506331.92	4320216.76	0.06719	425.08	648.69	1.5	ANNUAL	ALL	5
506346.88	4320247.24	0.06037	424.2	648.69	1.5	ANNUAL	ALL	5
506315.09	4320225.02	0.05412	425.46	648.69	1.5	ANNUAL	ALL	5
506330.04	4320255.5	0.05108	425.03	648.69	1.5	ANNUAL	ALL	5
506298.26	4320233.28	0.04412	425.48	648.69	1.5	ANNUAL	ALL	5
506313.21	4320263.76	0.04312	425.96	648.69	1.5	ANNUAL	ALL	5
506281.42	4320241.54	0.03613	425.88	648.69	1.5	ANNUAL	ALL	5
506296.38	4320272.02	0.03635	426.85	648.69	1.5	ANNUAL	ALL	5
506264.59	4320249.8	0.02974	426.66	648.69	1.5	ANNUAL	ALL	5
506279.54	4320280.28	0.03076	427.54	648.69	1.5	ANNUAL	ALL	5
506230.92	4320266.31	0.02083	428.02	648.69	1.5	ANNUAL	ALL	5
506197.26	4320282.83	0.01524	428.83	648.69	1.5	ANNUAL	ALL	5
506212.21	4320313.31	0.01665	429.45	648.69	1.5	ANNUAL	ALL	5
506163.59	4320299.35	0.0118	427.5	648.69	1.5	ANNUAL	ALL	5
506178.54	4320329.83	0.01299	428.05	648.69	1.5	ANNUAL	ALL	5
506129.92	4320315.86	0.00946	425.29	648.69	1.5	ANNUAL	ALL	5
506144.88	4320346.34	0.01047	425.36	648.69	1.5	ANNUAL	ALL	5
506062.59	4320348.9	0.00638	423.37	648.69	1.5	ANNUAL	ALL	5
506077.54	4320379.38	0.00711	422.06	648.69	1.5	ANNUAL	ALL	5
505995.26	4320381.93	0.0045	421.83	648.69	1.5	ANNUAL	ALL	5
506010.21	4320412.41	0.00487	423.68	648.69	1.5	ANNUAL	ALL	5
506357.39	4320269.94	0.05055	425.73	648.69	1.5	ANNUAL	ALL	5
506340.38	4320277.83	0.04494	426.48	648.69	1.5	ANNUAL	ALL	5
506221.33	4320333.09	0.01695	430.84	648.69	1.5	ANNUAL	ALL	5
506187.32	4320348.88	0.01328	429.96	648.69	1.5	ANNUAL	ALL	5
506153.31	4320364.67	0.01077	427.11	648.69	1.5	ANNUAL	ALL	5
506085.28	4320396.25	0.00745	421.55	648.69	1.5	ANNUAL	ALL	5
506229.53	4320397.56	0.01509	430.48	648.69	1.5	ANNUAL	ALL	5
506208.43	4320373.22	0.01437	431.08	648.69	1.5	ANNUAL	ALL	5
506309.38	4320504.39	0.01133	427.01	648.69	1.5	ANNUAL	ALL	5
506277.69	4320494.69	0.01192	427.22	648.69	1.5	ANNUAL	ALL	5
506250.99	4320477.33	0.01237	427.94	648.69	1.5	ANNUAL	ALL	5
506229.29	4320452.29	0.01309	425.86	648.69	1.5	ANNUAL	ALL	5
506207.58	4320427.26	0.01326	424.29	648.69	1.5	ANNUAL	ALL	5
506185.87	4320402.22	0.01241	427.11	648.69	1.5	ANNUAL	ALL	5
506210.52	4320540.68	0.00942	419.47	648.69	1.5	ANNUAL	ALL	5
506189.65	4320516.61	0.00972	419.93	648.69	1.5	ANNUAL	ALL	5
506168.77	4320492.54	0.00975	420.13	648.69	1.5	ANNUAL	ALL	5
506147.9	4320468.46	0.00951	419.79	648.69	1.5	ANNUAL	ALL	5
506127.02	4320444.39	0.00902	419.63	648.69	1.5	ANNUAL	ALL	5
506106.15	4320420.32	0.00833	420.23	648.69	1.5	ANNUAL	ALL	5
506147.5	4320578.03	0.00736	417.18	648.69	1.5	ANNUAL	ALL	5
506125.79	4320553	0.00736	419.54	648.69	1.5	ANNUAL	ALL	5
506104.08	4320527.96	0.00717	419.76	648.69	1.5	ANNUAL	ALL	5
506082.37	4320502.93	0.00682	420.01	648.69	1.5	ANNUAL	ALL	5
506060.67	4320477.89	0.0063	421.27	648.69	1.5	ANNUAL	ALL	5
506038.96	4320452.86	0.00567	423.55	648.69	1.5	ANNUAL	ALL	5

** CONCUNIT ug /m^3

** DEPUNIT g/m ^2

Health Risk Assessment

Construction Health Risk Assessment

Phase 3 – Unmitigated

Emissions and Concentrations

Lakeport Shopping Center Project

Phase 3

Estimation of Annual Onsite Construction Emissions

Start of Construction	10/3/2023		
End of Construction	11/25/2024		**Total**
Number of Days	419		419
Number of Hours	10,056		10,056
Number of Years	1.15		1.15
Size of the construction area source:	**32,575.9**	**sq-meters**	

CalEEMod Run	Year	On-site Construction Activity	Unmitigated On-site DPM (tons)
Phase 3	2023	On-site Site Preparation	0.00633
Phase 3	2023	On-site Grading	0.00775
Phase 3	2023	On-site Paving	0.00510
Phase 3	2023	On-site Building Construction	0.00490
Phase 3	2024	On-site Building Construction	0.06620
Phase 3	2024	On-site Architectural Coating	0.00061

Total Unmitigated DPM (On-site)	9.089E-02	tons
Average Emission*	8.253E+04	grams
	2.280E-03	grams/sec
	6.998E-08	grams/m2/sec

*Size of the construction area source accounted for in AERMOD.

Phase 3 - Area 1

Size of the construction area source:		**14,699.3**	**sq-meters**
	Portion of Phase 3	**0.45**	

Year	**On-site Construction Activity**	**Unmitigated On-site DPM (tons)**
2023	On-site Site Preparation	0.00286
2023	On-site Grading	0.00350
2023	On-site Paving	0.00230
2023	On-site Building Construction	0.00221
2024	On-site Building Construction	0.02987
2024	On-site Architectural Coating	0.00028

Total Unmitigated DPM (On-site)	4.101E-02	tons
Average Emission*	3.724E+04	grams
	1.029E-03	grams/sec
	6.998E-08	grams/m2/sec

*Size of the construction area source accounted for in AERMOD.

Phase 3 - Area 2

Size of the construction area source:		**17,876.6**	**sq-meters**
	Portion of Phase 3	**0.55**	

Year	**On-site Construction Activity**	**Unmitigated On-site DPM (tons)**
2023	On-site Site Preparation	0.00347
2023	On-site Grading	0.00425
2023	On-site Paving	0.00280
2023	On-site Building Construction	0.00269
2024	On-site Building Construction	0.03633
2024	On-site Architectural Coating	0.00033

Total Unmitigated DPM (On-site)	4.988E-02	tons
Average Emission*	4.529E+04	grams
	1.251E-03	grams/sec
	6.998E-08	grams/m2/sec

*Size of the construction area source accounted for in AERMOD.

Lakeport Shopping Center Project

Phase 3

Estimation of Annual Offsite Construction DPM Emissions (Unmitigated)

Start of Construction		10/3/2023			
End of Construction		11/25/2024		**Total**	
Number of Days		419		419	
Number of Hours		10,056		10056	

	Phase 1 (2022)	Phase 1 (2022)	Phase 1 (2022)	Phase 1 (2022) Building	Phase 1 (2022) Architectural	
Construction Trip Type	Site Preparation	Grading	Paving	Construction	Coating	
Haul Truck						
Vendor Truck						
Worker						
Total						
	Phase 2 (2023)	Phase 2 (2023)	Phase 2 (2023)	Phase 2 (2023) Building	Phase 2 (2023) Architectural	
	Site Preparation	Grading	Paving	Construction	Coating	
Haul Truck						
Vendor Truck						
Worker						
Total						
	Phase 3 (2023)	Phase 3 (2023)	Phase 3 (2023)	Phase 3 (2023) Building	Phase 3 (2024) Building	Phase 3 (2024) Architectural
	Site Preparation	Grading	Paving	Construction	Construction	Coating
Haul Truck	0.00001	0.00001	0.00001	0.00000	0.00001	0.00000
Vendor Truck	0.00000	0.00000	0.00001	0.00016	0.00231	0.00000
Worker	0.00001	0.00001	0.00001	0.00006	0.00087	0.00002
Total	0.00002	0.00002	0.00003	0.00022	0.00319	0.00002

	Haul Truck (tons)	**Vendor Truck (tons)**	**Worker (tons)**	**Total (tons)**
Total DPM	4.000E-05	2.480E-03	9.800E-04	3.500E-03
Average Emissions				
Grams	3.632E+01	2.252E+03	8.898E+02	
Grams/sec	1.003E-06	6.220E-05	2.458E-05	
Default Distance*	20	7.3	10.8	

*Default Vehicle Travel Distance in CalEEMod

Vehicle Travel Distances in the Construction HRA (miles)			
Road Segment 1 (mi)	0.43	0.43	0.43
Road Segment 2 (mi)	0.45	0.45	0.45
Road Segment 3 (mi)	0.53	0.53	0.53
Road Segment 4 (mi)	0.54	0.54	0.54

Trip Distribution (percent)			
Road Segment 1	25.0%	25.0%	25.0%
Road Segment 2	25.0%	25.0%	25.0%
Road Segment 3	25.0%	25.0%	25.0%
Road Segment 4	25.0%	25.0%	25.0%

Total Average Offsite Vehicle Emissions Along Travel Distance (g/sec)				**Total**
Road Segment 1	5.334E-09	9.060E-07	2.420E-07	1.153E-06
Road Segment 2	5.606E-09	9.522E-07	2.543E-07	1.212E-06
Road Segment 3	6.670E-09	1.133E-06	3.026E-07	1.442E-06
Road Segment 4	6.774E-09	1.151E-06	3.073E-07	1.465E-06

Maximum DPM (ug/m3)	UTM X	Y
9.4140E-02	506616.29	4320010.20

* AERMOD (19191): G:\LSC_HRA\Phase 3\Phase3.isc 10/10/2021
* AERMET (14134): 8:42:55 PM
* MODELING OPTIONS USED: Reg DFAULT CONCELEV FLGPOL URBAN
* PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 652 RECEPTORS.
* FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM YRS	NET ID
506703.91	4320437.76	0.00217	420.88	432.12	1.5	ANNUAL	ALL	5	
506676.87	4320495.35	0.00206	423.66	431.49	1.5	ANNUAL	ALL	5	
506701.34	4320484.15	0.00177	424.59	431.49	1.5	ANNUAL	ALL	5	
506724.35	4320469.2	0.00159	423.58	432.12	1.5	ANNUAL	ALL	5	
506717.54	4320558.3	0.00112	428.24	432.02	1.5	ANNUAL	ALL	5	
506691.19	4320565.86	0.00145	420.45	432.12	1.5	ANNUAL	ALL	5	
506742.21	4320547.04	0.00094	431.7	431.7	1.5	ANNUAL	ALL	5	
506765.22	4320532.08	0.00085	432.05	432.05	1.5	ANNUAL	ALL	5	
506718.35	4320369.19	0.00271	418.53	418.53	1.5	ANNUAL	ALL	5	
506747.68	4320355.39	0.00227	418.67	445.92	1.5	ANNUAL	ALL	5	
506704.99	4320416.93	0.00239	420.06	430.6	1.5	ANNUAL	ALL	5	
506734.32	4320403.12	0.00201	418.93	432.12	1.5	ANNUAL	ALL	5	
506763.65	4320389.32	0.0017	418.46	445.92	1.5	ANNUAL	ALL	5	
506720.96	4320450.86	0.00179	421.47	432.12	1.5	ANNUAL	ALL	5	
506750.29	4320437.05	0.00154	419.57	432.12	1.5	ANNUAL	ALL	5	
506779.62	4320423.25	0.00132	418.64	445.92	1.5	ANNUAL	ALL	5	
506721.34	4320488.78	0.00144	425.73	432.12	1.5	ANNUAL	ALL	5	
506751.59	4320477.88	0.00121	426.13	432.12	1.5	ANNUAL	ALL	5	
506768.87	4320552.65	0.00078	431.71	432.04	1.5	ANNUAL	ALL	5	
506757.91	4320246.35	0.00404	419.21	648.69	1.5	ANNUAL	ALL	5	
506776.07	4320220.81	0.00407	419.9	445.92	1.5	ANNUAL	ALL	5	
506774.97	4320254.45	0.00323	420.15	445.92	1.5	ANNUAL	ALL	5	
506754.47	4320274.47	0.00342	419.27	445.92	1.5	ANNUAL	ALL	5	
506755.14	4320298.58	0.00291	418.81	445.92	1.5	ANNUAL	ALL	5	
507069.29	4320032.11	0.00199	411.74	445.92	1.5	ANNUAL	ALL	5	
507144.29	4320032.11	0.00137	408.5	445.92	1.5	ANNUAL	ALL	5	
507136.82	4320049.44	0.00133	410.64	445.92	1.5	ANNUAL	ALL	5	
507129.35	4320066.77	0.00128	412.6	445.92	1.5	ANNUAL	ALL	5	
507121.88	4320084.11	0.00123	415.74	445.92	1.5	ANNUAL	ALL	5	
507114.41	4320101.44	0.00118	418.21	445.92	1.5	ANNUAL	ALL	5	
507106.94	4320118.77	0.00113	419.88	445.92	1.5	ANNUAL	ALL	5	
507099.47	4320136.11	0.00108	421.37	445.92	1.5	ANNUAL	ALL	5	
507092	4320153.44	0.00102	423.61	445.92	1.5	ANNUAL	ALL	5	
507084.53	4320170.77	0.00096	425.39	445.92	1.5	ANNUAL	ALL	5	
507077.06	4320188.11	0.0009	427.1	445.92	1.5	ANNUAL	ALL	5	
507069.59	4320205.44	0.00084	429.72	445.92	1.5	ANNUAL	ALL	5	
507219.29	4320032.11	0.001	407.19	445.92	1.5	ANNUAL	ALL	5	
507211.82	4320049.45	0.00097	407.27	445.92	1.5	ANNUAL	ALL	5	
507204.34	4320066.79	0.00093	407.4	445.92	1.5	ANNUAL	ALL	5	
507196.87	4320084.13	0.0009	408.03	445.92	1.5	ANNUAL	ALL	5	
507189.39	4320101.47	0.00087	409.32	445.92	1.5	ANNUAL	ALL	5	
507181.92	4320118.82	0.00084	410.51	445.92	1.5	ANNUAL	ALL	5	
507174.45	4320136.16	0.00081	411.8	445.92	1.5	ANNUAL	ALL	5	
507166.97	4320153.5	0.00078	413.4	445.92	1.5	ANNUAL	ALL	5	
507159.5	4320170.84	0.00075	414.94	445.92	1.5	ANNUAL	ALL	5	
507152.02	4320188.18	0.00072	416.48	445.92	1.5	ANNUAL	ALL	5	
507144.55	4320205.52	0.00069	417.42	445.92	1.5	ANNUAL	ALL	5	
506837.97	4319876.1	0.01158	411.74	648.69	1.5	ANNUAL	ALL	5	
506712.12	4319999.57	0.06591	414.57	648.69	1.5	ANNUAL	ALL	5	
506715.28	4319990.41	0.05752	414.55	648.69	1.5	ANNUAL	ALL	5	
506716.15	4319971.68	0.04544	414.55	648.69	1.5	ANNUAL	ALL	5	
506717.01	4319952.95	0.03683	414.63	648.69	1.5	ANNUAL	ALL	5	
506717.88	4319934.22	0.0304	414.72	648.69	1.5	ANNUAL	ALL	5	
506718.74	4319915.49	0.02547	414.8	648.69	1.5	ANNUAL	ALL	5	
506790.5	4319906.09	0.01761	413.43	648.69	1.5	ANNUAL	ALL	5	
506756.99	4319898.49	0.01957	414.02	648.69	1.5	ANNUAL	ALL	5	
506738.3	4319897.62	0.02069	414.15	648.69	1.5	ANNUAL	ALL	5	
506719.61	4319896.76	0.02152	414.33	648.69	1.5	ANNUAL	ALL	5	
506810.41	4319896.04	0.01479	412.28	648.69	1.5	ANNUAL	ALL	5	
506776.55	4319880.62	0.01596	413.08	648.69	1.5	ANNUAL	ALL	5	
506757.86	4319879.76	0.01696	413.22	648.69	1.5	ANNUAL	ALL	5	
506739.16	4319878.89	0.01776	413.28	648.69	1.5	ANNUAL	ALL	5	
506720.47	4319878.03	0.01835	413.49	648.69	1.5	ANNUAL	ALL	5	
506794.15	4319850.39	0.0124	411.86	648.69	1.5	ANNUAL	ALL	5	
506825.89	4319864.84	0.0117	411.67	648.69	1.5	ANNUAL	ALL	5	
506759.59	4319842.3	0.01309	412.09	648.69	1.5	ANNUAL	ALL	5	
506740.89	4319841.43	0.01354	412.29	648.69	1.5	ANNUAL	ALL	5	
506722.2	4319840.57	0.01384	412.5	648.69	1.5	ANNUAL	ALL	5	
506796.94	4319813.41	0.01009	411.86	648.69	1.5	ANNUAL	ALL	5	

506813.87	4319821.12	0.00996	411.64	648.69	1.5	ANNUAL	ALL	5
506830.79	4319828.82	0.00972	411.39	648.69	1.5	ANNUAL	ALL	5
506847.72	4319836.53	0.00937	411.17	648.69	1.5	ANNUAL	ALL	5
506780.01	4319805.7	0.0101	411.9	648.69	1.5	ANNUAL	ALL	5
506761.32	4319804.84	0.01044	412.02	648.69	1.5	ANNUAL	ALL	5
506742.62	4319803.97	0.01069	412.19	648.69	1.5	ANNUAL	ALL	5
506723.93	4319803.11	0.01083	412.29	648.69	1.5	ANNUAL	ALL	5
506797.9	4319775.6	0.00833	411.56	648.69	1.5	ANNUAL	ALL	5
506830.21	4319790.31	0.0082	411.21	648.69	1.5	ANNUAL	ALL	5
506862.53	4319805.03	0.00781	410.87	648.69	1.5	ANNUAL	ALL	5
506966.08	4319865.66	0.00549	410.16	648.69	1.5	ANNUAL	ALL	5
506763.05	4319767.38	0.00848	411.79	648.69	1.5	ANNUAL	ALL	5
506744.35	4319766.51	0.00862	412.07	648.69	1.5	ANNUAL	ALL	5
506725.66	4319765.65	0.00869	412.15	648.69	1.5	ANNUAL	ALL	5
506800.4	4319738.49	0.00697	411.43	648.69	1.5	ANNUAL	ALL	5
506817.33	4319746.2	0.00698	411.12	648.69	1.5	ANNUAL	ALL	5
506834.25	4319753.9	0.00694	410.98	648.69	1.5	ANNUAL	ALL	5
506851.18	4319761.61	0.00684	410.81	648.69	1.5	ANNUAL	ALL	5
506868.11	4319769.32	0.0067	410.68	648.69	1.5	ANNUAL	ALL	5
506885.04	4319777.03	0.00651	410.6	648.69	1.5	ANNUAL	ALL	5
506993.52	4319840.54	0.00468	409.87	648.69	1.5	ANNUAL	ALL	5
507000.44	4319857.81	0.00455	409.74	648.69	1.5	ANNUAL	ALL	5
507007.36	4319875.07	0.00437	409.83	648.69	1.5	ANNUAL	ALL	5
507048.87	4319978.66	0.00276	410.72	648.69	1.5	ANNUAL	ALL	5
507055.79	4319995.93	0.00249	410.99	648.69	1.5	ANNUAL	ALL	5
507062.71	4320013.19	0.00223	411.2	445.92	1.5	ANNUAL	ALL	5
506783.47	4319730.78	0.0069	411.72	648.69	1.5	ANNUAL	ALL	5
506764.78	4319729.92	0.00702	411.86	648.69	1.5	ANNUAL	ALL	5
506746.08	4319729.05	0.00709	411.94	648.69	1.5	ANNUAL	ALL	5
506727.39	4319728.19	0.00711	412.1	648.69	1.5	ANNUAL	ALL	5
506803.86	4319663.57	0.00507	411.87	648.69	1.5	ANNUAL	ALL	5
506820.79	4319671.28	0.00511	411.31	648.69	1.5	ANNUAL	ALL	5
506837.71	4319678.98	0.00513	411.4	648.69	1.5	ANNUAL	ALL	5
506854.64	4319686.69	0.00512	411.42	648.69	1.5	ANNUAL	ALL	5
506871.57	4319694.4	0.00508	411.36	648.69	1.5	ANNUAL	ALL	5
506888.5	4319702.11	0.00501	411.07	648.69	1.5	ANNUAL	ALL	5
506905.42	4319709.82	0.00492	410.93	648.69	1.5	ANNUAL	ALL	5
506922.35	4319717.53	0.0048	410.76	648.69	1.5	ANNUAL	ALL	5
507006.99	4319756.07	0.00398	409.92	648.69	1.5	ANNUAL	ALL	5
507023.92	4319763.78	0.00378	409.47	648.69	1.5	ANNUAL	ALL	5
507047.76	4319788.75	0.00353	409.38	648.69	1.5	ANNUAL	ALL	5
507054.68	4319806.01	0.00346	409.45	648.69	1.5	ANNUAL	ALL	5
507061.6	4319823.28	0.00337	409.47	648.69	1.5	ANNUAL	ALL	5
507068.52	4319840.54	0.00325	409.38	648.69	1.5	ANNUAL	ALL	5
507075.44	4319857.81	0.00311	409.19	648.69	1.5	ANNUAL	ALL	5
507082.36	4319875.07	0.00294	408.85	648.69	1.5	ANNUAL	ALL	5
507089.28	4319892.34	0.00276	408.66	648.69	1.5	ANNUAL	ALL	5
507096.2	4319909.6	0.00257	408.51	648.69	1.5	ANNUAL	ALL	5
507103.12	4319926.87	0.00238	408.47	648.69	1.5	ANNUAL	ALL	5
507110.03	4319944.13	0.0022	408.5	648.69	1.5	ANNUAL	ALL	5
507116.95	4319961.4	0.00201	408.54	445.92	1.5	ANNUAL	ALL	5
507123.87	4319978.66	0.00184	408.45	445.92	1.5	ANNUAL	ALL	5
507130.79	4319995.93	0.00167	408.32	445.92	1.5	ANNUAL	ALL	5
507137.71	4320013.19	0.00152	408.43	445.92	1.5	ANNUAL	ALL	5
506786.93	4319655.86	0.00499	412.57	648.69	1.5	ANNUAL	ALL	5
506768.24	4319655	0.00503	412.66	648.69	1.5	ANNUAL	ALL	5
506749.54	4319654.13	0.00503	412.48	648.69	1.5	ANNUAL	ALL	5
506730.85	4319653.27	0.00501	412.96	648.69	1.5	ANNUAL	ALL	5
506807.32	4319588.65	0.00386	421.4	648.69	1.5	ANNUAL	ALL	5
506824.25	4319596.36	0.00392	421.09	648.69	1.5	ANNUAL	ALL	5
506841.17	4319604.06	0.00397	419.7	648.69	1.5	ANNUAL	ALL	5
506858.1	4319611.77	0.00399	417.39	648.69	1.5	ANNUAL	ALL	5
506875.03	4319619.48	0.00397	415.22	648.69	1.5	ANNUAL	ALL	5
506891.96	4319627.19	0.00394	413.58	648.69	1.5	ANNUAL	ALL	5
506908.88	4319634.9	0.0039	412.57	648.69	1.5	ANNUAL	ALL	5
506925.81	4319642.61	0.00384	411.99	648.69	1.5	ANNUAL	ALL	5
506942.74	4319650.31	0.00377	411.32	648.69	1.5	ANNUAL	ALL	5
507044.3	4319696.56	0.00317	409.32	648.69	1.5	ANNUAL	ALL	5
507061.23	4319704.27	0.00304	409.4	648.69	1.5	ANNUAL	ALL	5
507078.16	4319711.98	0.00292	409.48	648.69	1.5	ANNUAL	ALL	5
507102	4319736.95	0.00276	409.58	648.69	1.5	ANNUAL	ALL	5
507108.92	4319754.22	0.00273	409.54	648.69	1.5	ANNUAL	ALL	5
507115.84	4319771.48	0.00267	409.4	648.69	1.5	ANNUAL	ALL	5
507122.76	4319788.75	0.0026	409.31	648.69	1.5	ANNUAL	ALL	5
507129.68	4319806.01	0.00252	409.22	648.69	1.5	ANNUAL	ALL	5
507136.6	4319823.28	0.00242	409.08	648.69	1.5	ANNUAL	ALL	5
507143.52	4319840.54	0.0023	408.99	648.69	1.5	ANNUAL	ALL	5
507150.44	4319857.81	0.00218	408.63	648.69	1.5	ANNUAL	ALL	5
507157.36	4319875.07	0.00205	408.12	648.69	1.5	ANNUAL	ALL	5
507164.28	4319892.34	0.00192	407.93	445.79	1.5	ANNUAL	ALL	5
507171.2	4319909.6	0.00179	407.81	445.88	1.5	ANNUAL	ALL	5
507178.12	4319926.87	0.00166	407.74	445.92	1.5	ANNUAL	ALL	5
507185.03	4319944.13	0.00153	407.67	445.92	1.5	ANNUAL	ALL	5
507191.95	4319961.4	0.00141	407.61	445.92	1.5	ANNUAL	ALL	5

507198.87	4319978.66	0.0013	407.48	445.92	1.5	ANNUAL	ALL	5
507205.79	4319995.93	0.00119	407.32	445.92	1.5	ANNUAL	ALL	5
507212.71	4320013.19	0.00109	407.22	445.92	1.5	ANNUAL	ALL	5
506790.39	4319580.94	0.00378	421.61	648.69	1.5	ANNUAL	ALL	5
506771.7	4319580.08	0.00377	421.65	648.69	1.5	ANNUAL	ALL	5
506753	4319579.21	0.00375	422.3	648.69	1.5	ANNUAL	ALL	5
506734.31	4319578.35	0.00367	424.74	648.69	1.5	ANNUAL	ALL	5
506655.11	4320009.77	0.08856	415.49	648.69	1.5	ANNUAL	ALL	5
506635.7	4320009.98	0.09224	416.51	648.69	1.5	ANNUAL	ALL	5
506616.29	4320010.2	0.09414	417.44	648.69	1.5	ANNUAL	ALL	5
506596.88	4320010.42	0.0926	418.06	648.69	1.5	ANNUAL	ALL	5
506577.47	4320010.63	0.08868	419.08	648.69	1.5	ANNUAL	ALL	5
506558.06	4320010.85	0.07657	421.03	648.69	1.5	ANNUAL	ALL	5
506538.65	4320011.06	0.05617	422.45	648.69	1.5	ANNUAL	ALL	5
506519.24	4320011.28	0.04025	423.11	648.69	1.5	ANNUAL	ALL	5
506499.83	4320011.5	0.03198	423.16	648.69	1.5	ANNUAL	ALL	5
506480.42	4320011.71	0.02677	423.21	648.69	1.5	ANNUAL	ALL	5
506693.72	4319990.59	0.06193	414.73	648.69	1.5	ANNUAL	ALL	5
506674.31	4319990.8	0.06481	414.94	648.69	1.5	ANNUAL	ALL	5
506654.9	4319991.02	0.06698	415.38	648.69	1.5	ANNUAL	ALL	5
506635.49	4319991.24	0.06927	416.6	648.69	1.5	ANNUAL	ALL	5
506616.08	4319991.45	0.0698	417.71	648.69	1.5	ANNUAL	ALL	5
506596.67	4319991.67	0.06699	418.13	648.69	1.5	ANNUAL	ALL	5
506577.26	4319991.88	0.06182	418.76	648.69	1.5	ANNUAL	ALL	5
506557.85	4319992.1	0.05397	420.12	648.69	1.5	ANNUAL	ALL	5
506538.44	4319992.31	0.04245	420.96	648.69	1.5	ANNUAL	ALL	5
506519.03	4319992.53	0.03271	421.4	648.69	1.5	ANNUAL	ALL	5
506499.62	4319992.75	0.02627	421.69	648.69	1.5	ANNUAL	ALL	5
506480.21	4319992.96	0.02199	422.04	648.69	1.5	ANNUAL	ALL	5
506693.51	4319971.84	0.04867	414.75	648.69	1.5	ANNUAL	ALL	5
506674.1	4319972.06	0.05059	415.05	648.69	1.5	ANNUAL	ALL	5
506654.69	4319972.27	0.05168	415.46	648.69	1.5	ANNUAL	ALL	5
506635.28	4319972.49	0.05263	416.77	648.69	1.5	ANNUAL	ALL	5
506615.87	4319972.7	0.05199	417.86	648.69	1.5	ANNUAL	ALL	5
506596.46	4319972.92	0.04901	417.99	648.69	1.5	ANNUAL	ALL	5
506577.05	4319973.13	0.04457	418.24	648.69	1.5	ANNUAL	ALL	5
506557.64	4319973.35	0.03899	418.86	648.69	1.5	ANNUAL	ALL	5
506538.23	4319973.57	0.03268	419.45	648.69	1.5	ANNUAL	ALL	5
506518.82	4319973.78	0.02676	420	648.69	1.5	ANNUAL	ALL	5
506499.41	4319974	0.02199	420.53	648.69	1.5	ANNUAL	ALL	5
506480	4319974.21	0.01845	421.06	648.69	1.5	ANNUAL	ALL	5
506693.31	4319953.09	0.03916	414.83	648.69	1.5	ANNUAL	ALL	5
506673.9	4319953.31	0.04041	415.22	648.69	1.5	ANNUAL	ALL	5
506654.49	4319953.52	0.0408	415.5	648.69	1.5	ANNUAL	ALL	5
506635.08	4319953.74	0.04071	416.37	648.69	1.5	ANNUAL	ALL	5
506615.67	4319953.95	0.03954	417.07	648.69	1.5	ANNUAL	ALL	5
506596.26	4319954.17	0.0371	417.2	648.69	1.5	ANNUAL	ALL	5
506576.85	4319954.39	0.03389	417.66	648.69	1.5	ANNUAL	ALL	5
506557.44	4319954.6	0.03007	418.46	648.69	1.5	ANNUAL	ALL	5
506538.03	4319954.82	0.02589	419.14	648.69	1.5	ANNUAL	ALL	5
506518.62	4319955.03	0.0219	419.76	648.69	1.5	ANNUAL	ALL	5
506499.21	4319955.25	0.01849	420.33	648.69	1.5	ANNUAL	ALL	5
506479.8	4319955.46	0.01567	420.76	648.69	1.5	ANNUAL	ALL	5
506693.1	4319934.34	0.03206	414.86	648.69	1.5	ANNUAL	ALL	5
506673.69	4319934.56	0.03283	415.28	648.69	1.5	ANNUAL	ALL	5
506654.28	4319934.77	0.03284	415.39	648.69	1.5	ANNUAL	ALL	5
506634.87	4319934.99	0.03233	415.85	648.69	1.5	ANNUAL	ALL	5
506615.46	4319935.2	0.03113	416.27	648.69	1.5	ANNUAL	ALL	5
506596.05	4319935.42	0.02921	416.53	648.69	1.5	ANNUAL	ALL	5
506576.64	4319935.64	0.02687	417.29	648.69	1.5	ANNUAL	ALL	5
506557.23	4319935.85	0.02415	418.38	648.69	1.5	ANNUAL	ALL	5
506537.82	4319936.07	0.02118	419.17	648.69	1.5	ANNUAL	ALL	5
506518.41	4319936.28	0.0183	419.81	648.69	1.5	ANNUAL	ALL	5
506499	4319936.5	0.01572	420.34	648.69	1.5	ANNUAL	ALL	5
506479.59	4319936.72	0.01349	420.62	648.69	1.5	ANNUAL	ALL	5
506692.89	4319915.59	0.02661	414.75	648.69	1.5	ANNUAL	ALL	5
506673.48	4319915.81	0.027	414.94	648.69	1.5	ANNUAL	ALL	5
506654.07	4319916.02	0.0268	414.79	648.69	1.5	ANNUAL	ALL	5
506634.66	4319916.24	0.02628	415.3	648.69	1.5	ANNUAL	ALL	5
506615.25	4319916.46	0.02532	416.09	648.69	1.5	ANNUAL	ALL	5
506595.84	4319916.67	0.02388	416.92	648.69	1.5	ANNUAL	ALL	5
506576.43	4319916.89	0.02207	417.89	648.69	1.5	ANNUAL	ALL	5
506557.02	4319917.1	0.01996	418.8	648.69	1.5	ANNUAL	ALL	5
506537.61	4319917.32	0.01772	419.34	648.69	1.5	ANNUAL	ALL	5
506518.2	4319917.54	0.01553	419.67	648.69	1.5	ANNUAL	ALL	5
506498.79	4319917.75	0.01352	419.94	648.69	1.5	ANNUAL	ALL	5
506479.38	4319917.97	0.01176	420.22	648.69	1.5	ANNUAL	ALL	5
506692.68	4319896.84	0.02235	414.39	648.69	1.5	ANNUAL	ALL	5
506673.27	4319897.06	0.02253	414.44	648.69	1.5	ANNUAL	ALL	5
506653.86	4319897.28	0.0223	414.4	648.69	1.5	ANNUAL	ALL	5
506634.45	4319897.49	0.02183	415.09	648.69	1.5	ANNUAL	ALL	5
506615.04	4319897.71	0.02103	416.08	648.69	1.5	ANNUAL	ALL	5
506595.63	4319897.92	0.01987	417.04	648.69	1.5	ANNUAL	ALL	5
506576.22	4319898.14	0.01842	417.93	648.69	1.5	ANNUAL	ALL	5

506556.81	4319898.35	0.01677	418.5	648.69	1.5	ANNUAL	ALL	5
506537.4	4319898.57	0.01505	419.17	648.69	1.5	ANNUAL	ALL	5
506517.99	4319898.79	0.01335	419.46	648.69	1.5	ANNUAL	ALL	5
506498.58	4319899	0.01175	419.37	648.69	1.5	ANNUAL	ALL	5
506479.17	4319899.22	0.0103	419.26	648.69	1.5	ANNUAL	ALL	5
506692.47	4319878.1	0.01898	413.87	648.69	1.5	ANNUAL	ALL	5
506673.06	4319878.31	0.01904	413.83	648.69	1.5	ANNUAL	ALL	5
506653.65	4319878.53	0.01885	414.15	648.69	1.5	ANNUAL	ALL	5
506634.24	4319878.74	0.01845	415.14	648.69	1.5	ANNUAL	ALL	5
506614.83	4319878.96	0.01776	416.18	648.69	1.5	ANNUAL	ALL	5
506595.42	4319879.17	0.01678	416.93	648.69	1.5	ANNUAL	ALL	5
506576.01	4319879.39	0.0156	417.47	648.69	1.5	ANNUAL	ALL	5
506556.6	4319879.61	0.01426	417.52	648.69	1.5	ANNUAL	ALL	5
506537.19	4319879.82	0.01295	418.71	648.69	1.5	ANNUAL	ALL	5
506517.78	4319880.04	0.0116	419.19	648.69	1.5	ANNUAL	ALL	5
506498.37	4319880.25	0.01029	418.6	648.69	1.5	ANNUAL	ALL	5
506478.96	4319880.47	0.00907	417.72	648.69	1.5	ANNUAL	ALL	5
506692.06	4319840.6	0.01413	412.81	648.69	1.5	ANNUAL	ALL	5
506672.65	4319840.81	0.0141	413	648.69	1.5	ANNUAL	ALL	5
506653.24	4319841.03	0.0139	413.28	648.69	1.5	ANNUAL	ALL	5
506633.83	4319841.24	0.01352	413.73	648.69	1.5	ANNUAL	ALL	5
506614.42	4319841.46	0.01299	414.28	648.69	1.5	ANNUAL	ALL	5
506595.01	4319841.68	0.01233	414.87	648.69	1.5	ANNUAL	ALL	5
506575.6	4319841.89	0.01155	415.47	648.69	1.5	ANNUAL	ALL	5
506556.19	4319842.11	0.01073	416.29	648.69	1.5	ANNUAL	ALL	5
506536.78	4319842.32	0.00983	416.45	648.69	1.5	ANNUAL	ALL	5
506517.37	4319842.54	0.00892	416.29	648.69	1.5	ANNUAL	ALL	5
506497.96	4319842.76	0.00804	415.98	648.69	1.5	ANNUAL	ALL	5
506478.55	4319842.97	0.0072	415.58	648.69	1.5	ANNUAL	ALL	5
506691.64	4319803.1	0.01094	412.64	648.69	1.5	ANNUAL	ALL	5
506672.23	4319803.32	0.01086	412.8	648.69	1.5	ANNUAL	ALL	5
506652.82	4319803.53	0.01066	412.98	648.69	1.5	ANNUAL	ALL	5
506633.41	4319803.75	0.01036	413.2	648.69	1.5	ANNUAL	ALL	5
506614	4319803.96	0.00995	413.45	648.69	1.5	ANNUAL	ALL	5
506594.59	4319804.18	0.00946	413.72	648.69	1.5	ANNUAL	ALL	5
506575.18	4319804.39	0.00891	413.97	648.69	1.5	ANNUAL	ALL	5
506555.77	4319804.61	0.00831	413.91	648.69	1.5	ANNUAL	ALL	5
506536.36	4319804.83	0.0077	414.24	648.69	1.5	ANNUAL	ALL	5
506516.95	4319805.04	0.00708	414.51	648.69	1.5	ANNUAL	ALL	5
506497.54	4319805.26	0.00647	414.66	648.69	1.5	ANNUAL	ALL	5
506478.13	4319805.47	0.00588	414.8	648.69	1.5	ANNUAL	ALL	5
506691.22	4319765.6	0.00869	412.45	648.69	1.5	ANNUAL	ALL	5
506671.81	4319765.82	0.00859	412.57	648.69	1.5	ANNUAL	ALL	5
506652.4	4319766.03	0.00842	412.82	648.69	1.5	ANNUAL	ALL	5
506632.99	4319766.25	0.00818	413.08	648.69	1.5	ANNUAL	ALL	5
506613.58	4319766.47	0.00787	413.26	648.69	1.5	ANNUAL	ALL	5
506594.17	4319766.68	0.0075	413.39	648.69	1.5	ANNUAL	ALL	5
506574.76	4319766.9	0.0071	413.53	648.69	1.5	ANNUAL	ALL	5
506555.35	4319767.11	0.00667	413.39	648.69	1.5	ANNUAL	ALL	5
506535.94	4319767.33	0.00623	413.88	648.69	1.5	ANNUAL	ALL	5
506516.53	4319767.54	0.00579	414.27	648.69	1.5	ANNUAL	ALL	5
506497.12	4319767.76	0.00534	414.47	648.69	1.5	ANNUAL	ALL	5
506477.71	4319767.98	0.00491	414.66	648.69	1.5	ANNUAL	ALL	5
506690.8	4319728.1	0.00705	412.38	648.69	1.5	ANNUAL	ALL	5
506671.39	4319728.32	0.00695	412.57	648.69	1.5	ANNUAL	ALL	5
506651.98	4319728.54	0.00681	412.91	648.69	1.5	ANNUAL	ALL	5
506632.57	4319728.75	0.00661	413.07	648.69	1.5	ANNUAL	ALL	5
506613.16	4319728.97	0.00636	413.22	648.69	1.5	ANNUAL	ALL	5
506593.75	4319729.18	0.00609	413.33	648.69	1.5	ANNUAL	ALL	5
506574.34	4319729.4	0.00579	413.35	648.69	1.5	ANNUAL	ALL	5
506554.93	4319729.62	0.00546	413.26	648.69	1.5	ANNUAL	ALL	5
506535.52	4319729.83	0.00514	413.83	648.69	1.5	ANNUAL	ALL	5
506516.11	4319730.05	0.00481	414.05	648.69	1.5	ANNUAL	ALL	5
506496.7	4319730.26	0.00447	414.08	648.69	1.5	ANNUAL	ALL	5
506477.29	4319730.48	0.00415	414.2	648.69	1.5	ANNUAL	ALL	5
506709.38	4319652.89	0.00497	413.77	648.69	1.5	ANNUAL	ALL	5
506689.97	4319653.11	0.00491	414.5	648.69	1.5	ANNUAL	ALL	5
506670.56	4319653.32	0.00483	415.36	648.69	1.5	ANNUAL	ALL	5
506651.15	4319653.54	0.00472	416.15	648.69	1.5	ANNUAL	ALL	5
506631.74	4319653.76	0.00458	416.08	648.69	1.5	ANNUAL	ALL	5
506612.33	4319653.97	0.00441	415.34	648.69	1.5	ANNUAL	ALL	5
506592.92	4319654.19	0.00423	414.4	648.69	1.5	ANNUAL	ALL	5
506573.51	4319654.4	0.00404	413.73	648.69	1.5	ANNUAL	ALL	5
506554.1	4319654.62	0.00385	413.58	648.69	1.5	ANNUAL	ALL	5
506534.69	4319654.84	0.00366	414.03	648.69	1.5	ANNUAL	ALL	5
506515.28	4319655.05	0.00347	414.6	648.69	1.5	ANNUAL	ALL	5
506495.87	4319655.27	0.00328	414.84	648.69	1.5	ANNUAL	ALL	5
506476.46	4319655.48	0.00308	414.63	648.69	1.5	ANNUAL	ALL	5
506708.55	4319577.9	0.0035	429.41	648.69	1.5	ANNUAL	ALL	5
506689.14	4319578.11	0.00337	431.33	648.69	1.5	ANNUAL	ALL	5
506669.73	4319578.33	0.00329	430.78	648.69	1.5	ANNUAL	ALL	5
506650.32	4319578.55	0.0033	426.07	648.69	1.5	ANNUAL	ALL	5
506630.91	4319578.76	0.00329	422.68	648.69	1.5	ANNUAL	ALL	5
506611.5	4319578.98	0.00322	420.37	648.69	1.5	ANNUAL	ALL	5

506592.09	4319579.19	0.0031	418.39	648.69	1.5	ANNUAL	ALL	5
506572.68	4319579.41	0.00298	416.44	648.69	1.5	ANNUAL	ALL	5
506553.27	4319579.62	0.00285	415.22	648.69	1.5	ANNUAL	ALL	5
506533.86	4319579.84	0.00273	415.3	648.69	1.5	ANNUAL	ALL	5
506514.45	4319580.06	0.00261	416.28	648.69	1.5	ANNUAL	ALL	5
506495.04	4319580.27	0.0025	417.59	648.69	1.5	ANNUAL	ALL	5
506475.63	4319580.49	0.00238	418.51	648.69	1.5	ANNUAL	ALL	5
506462.36	4320012	0.02311	423.29	648.69	1.5	ANNUAL	ALL	5
506426.41	4320012.58	0.01709	423.56	648.69	1.5	ANNUAL	ALL	5
506390.47	4320013.15	0.01211	423.51	648.69	1.5	ANNUAL	ALL	5
506462.06	4319993.25	0.01901	422.23	648.69	1.5	ANNUAL	ALL	5
506426.11	4319993.83	0.01428	422.7	648.69	1.5	ANNUAL	ALL	5
506390.17	4319994.41	0.01043	422.64	648.69	1.5	ANNUAL	ALL	5
506461.76	4319974.51	0.01594	421.5	648.69	1.5	ANNUAL	ALL	5
506425.81	4319975.08	0.01212	421.96	648.69	1.5	ANNUAL	ALL	5
506389.87	4319975.66	0.00907	421.59	648.69	1.5	ANNUAL	ALL	5
506461.46	4319955.76	0.01362	420.82	648.69	1.5	ANNUAL	ALL	5
506443.48	4319956.05	0.01194	420.66	648.69	1.5	ANNUAL	ALL	5
506407.54	4319956.62	0.00917	420.14	648.69	1.5	ANNUAL	ALL	5
506371.6	4319957.2	0.0069	419.38	648.69	1.5	ANNUAL	ALL	5
506461.15	4319937.01	0.0118	420.1	648.69	1.5	ANNUAL	ALL	5
506425.21	4319937.59	0.00908	418.55	648.69	1.5	ANNUAL	ALL	5
506389.27	4319938.16	0.007	417.87	648.69	1.5	ANNUAL	ALL	5
506371.3	4319938.45	0.00612	417.56	648.69	1.5	ANNUAL	ALL	5
506460.85	4319918.26	0.01027	418.94	648.69	1.5	ANNUAL	ALL	5
506424.91	4319918.84	0.00797	417.43	648.69	1.5	ANNUAL	ALL	5
506388.97	4319919.42	0.00622	416.96	648.69	1.5	ANNUAL	ALL	5
506460.55	4319899.52	0.00903	417.78	648.69	1.5	ANNUAL	ALL	5
506424.61	4319900.09	0.00706	416.39	648.69	1.5	ANNUAL	ALL	5
506406.64	4319900.38	0.00628	416.22	648.69	1.5	ANNUAL	ALL	5
506370.69	4319900.96	0.00497	416.77	648.69	1.5	ANNUAL	ALL	5
506460.25	4319880.77	0.008	416.66	648.69	1.5	ANNUAL	ALL	5
506424.31	4319881.34	0.00632	415.5	648.69	1.5	ANNUAL	ALL	5
506388.37	4319881.92	0.00507	416.37	648.69	1.5	ANNUAL	ALL	5
506459.65	4319843.27	0.00644	415.04	648.69	1.5	ANNUAL	ALL	5
506423.71	4319843.85	0.00523	415.85	648.69	1.5	ANNUAL	ALL	5
506387.76	4319844.43	0.00425	416.27	648.69	1.5	ANNUAL	ALL	5
506459.05	4319805.78	0.00534	415.11	648.69	1.5	ANNUAL	ALL	5
506441.08	4319806.07	0.00486	415.31	648.69	1.5	ANNUAL	ALL	5
506405.13	4319806.64	0.004	415.75	648.69	1.5	ANNUAL	ALL	5
506369.19	4319807.22	0.0033	416.33	648.69	1.5	ANNUAL	ALL	5
506458.45	4319768.28	0.00449	414.77	648.69	1.5	ANNUAL	ALL	5
506422.5	4319768.86	0.00378	415.1	648.69	1.5	ANNUAL	ALL	5
506386.56	4319769.44	0.00316	415.71	648.69	1.5	ANNUAL	ALL	5
506457.85	4319730.79	0.00382	414.13	648.69	1.5	ANNUAL	ALL	5
506421.9	4319731.36	0.00327	414.84	648.69	1.5	ANNUAL	ALL	5
506385.96	4319731.94	0.00279	416.51	648.69	1.5	ANNUAL	ALL	5
506456.64	4319655.8	0.00288	414.6	648.69	1.5	ANNUAL	ALL	5
506438.67	4319656.08	0.00271	414.83	648.69	1.5	ANNUAL	ALL	5
506402.73	4319656.66	0.00238	415.92	648.69	1.5	ANNUAL	ALL	5
506366.78	4319657.24	0.00207	417.46	648.69	1.5	ANNUAL	ALL	5
506455.44	4319580.81	0.00225	418.18	648.69	1.5	ANNUAL	ALL	5
506419.5	4319581.38	0.00202	416.91	648.69	1.5	ANNUAL	ALL	5
506383.55	4319581.96	0.00181	417.14	648.69	1.5	ANNUAL	ALL	5
506339.84	4320036.71	0.00799	423.71	648.69	1.5	ANNUAL	ALL	5
506340.14	4320021.59	0.00741	422.79	648.69	1.5	ANNUAL	ALL	5
506358.5	4320000.97	0.008	421.95	648.69	1.5	ANNUAL	ALL	5
506337.21	4320053.17	0.00839	424.38	648.69	1.5	ANNUAL	ALL	5
506321.48	4320023.45	0.00616	421.79	648.69	1.5	ANNUAL	ALL	5
506344.49	4319988.5	0.0065	420.6	648.69	1.5	ANNUAL	ALL	5
506318.55	4320055.04	0.00701	422.88	648.69	1.5	ANNUAL	ALL	5
506302.83	4320025.32	0.00521	420.6	648.69	1.5	ANNUAL	ALL	5
506312.13	4319996.65	0.00497	419.37	648.69	1.5	ANNUAL	ALL	5
506330.49	4319976.03	0.00534	419.02	648.69	1.5	ANNUAL	ALL	5
506299.9	4320056.9	0.00591	421.61	648.69	1.5	ANNUAL	ALL	5
506284.17	4320027.18	0.00447	419.66	648.69	1.5	ANNUAL	ALL	5
506293.48	4319998.51	0.00425	418.75	648.69	1.5	ANNUAL	ALL	5
506316.49	4319963.56	0.00445	417.68	648.69	1.5	ANNUAL	ALL	5
506343.89	4319951.01	0.00527	417.77	648.69	1.5	ANNUAL	ALL	5
506281.24	4320058.77	0.0051	420.75	648.69	1.5	ANNUAL	ALL	5
506265.51	4320029.05	0.00391	419.36	648.69	1.5	ANNUAL	ALL	5
506274.82	4320000.38	0.00369	418.52	648.69	1.5	ANNUAL	ALL	5
506284.13	4319971.71	0.00354	418.01	648.69	1.5	ANNUAL	ALL	5
506302.49	4319951.1	0.00377	417.58	648.69	1.5	ANNUAL	ALL	5
506329.89	4319938.54	0.00443	416.68	648.69	1.5	ANNUAL	ALL	5
506357.29	4319925.98	0.00514	417.2	648.69	1.5	ANNUAL	ALL	5
506262.58	4320060.63	0.00446	420.17	648.69	1.5	ANNUAL	ALL	5
506246.86	4320030.91	0.00347	419.28	648.69	1.5	ANNUAL	ALL	5
506256.16	4320002.24	0.00325	418.63	648.69	1.5	ANNUAL	ALL	5
506265.47	4319973.57	0.0031	418.14	648.69	1.5	ANNUAL	ALL	5
506288.48	4319938.63	0.00324	417.9	648.69	1.5	ANNUAL	ALL	5
506315.89	4319926.07	0.00378	417.34	648.69	1.5	ANNUAL	ALL	5
506343.29	4319913.51	0.00438	417.17	648.69	1.5	ANNUAL	ALL	5
506243.93	4320062.5	0.00395	420.36	648.69	1.5	ANNUAL	ALL	5

506234.18	4320014.35	0.00298	418.99	648.69	1.5	ANNUAL	ALL	5
506244.82	4319981.58	0.00278	418.48	648.69	1.5	ANNUAL	ALL	5
506255.46	4319948.82	0.00265	418.36	648.69	1.5	ANNUAL	ALL	5
506292.1	4319918.08	0.00309	417.84	648.69	1.5	ANNUAL	ALL	5
506323.42	4319903.73	0.00365	417.52	648.69	1.5	ANNUAL	ALL	5
506354.73	4319889.38	0.00424	417.07	648.69	1.5	ANNUAL	ALL	5
506223.54	4320047.12	0.00323	419.63	648.69	1.5	ANNUAL	ALL	5
506226.99	4320081.62	0.00385	421.12	648.69	1.5	ANNUAL	ALL	5
506191.4	4320034.92	0.00255	419.62	648.69	1.5	ANNUAL	ALL	5
506201.74	4320003.06	0.00237	419.31	648.69	1.5	ANNUAL	ALL	5
506212.09	4319971.21	0.00221	418.72	648.69	1.5	ANNUAL	ALL	5
506222.43	4319939.35	0.00209	418.64	648.69	1.5	ANNUAL	ALL	5
506248	4319900.52	0.00217	418.19	648.69	1.5	ANNUAL	ALL	5
506278.45	4319886.57	0.00253	417.75	648.69	1.5	ANNUAL	ALL	5
506308.89	4319872.62	0.00295	417.38	648.69	1.5	ANNUAL	ALL	5
506339.34	4319858.67	0.00338	417.1	648.69	1.5	ANNUAL	ALL	5
506187.96	4320068.1	0.00286	420.24	648.69	1.5	ANNUAL	ALL	5
506153.99	4320038.94	0.00214	419.79	648.69	1.5	ANNUAL	ALL	5
506164.15	4320007.66	0.002	419.69	648.69	1.5	ANNUAL	ALL	5
506174.3	4319976.39	0.00187	419.54	648.69	1.5	ANNUAL	ALL	5
506184.46	4319945.11	0.00175	419.18	648.69	1.5	ANNUAL	ALL	5
506194.61	4319913.83	0.00166	419.36	648.69	1.5	ANNUAL	ALL	5
506219.72	4319875.71	0.00171	418.64	648.69	1.5	ANNUAL	ALL	5
506249.61	4319862.01	0.00197	418.05	648.69	1.5	ANNUAL	ALL	5
506279.51	4319848.31	0.00227	417.82	648.69	1.5	ANNUAL	ALL	5
506309.4	4319834.61	0.0026	417.33	648.69	1.5	ANNUAL	ALL	5
506339.3	4319820.92	0.00294	416.71	648.69	1.5	ANNUAL	ALL	5
506150.64	4320071.83	0.00236	420.17	648.69	1.5	ANNUAL	ALL	5
506116.61	4320042.87	0.00182	420.74	648.69	1.5	ANNUAL	ALL	5
506126.64	4320012	0.00172	420.42	648.69	1.5	ANNUAL	ALL	5
506136.66	4319981.12	0.00161	420.2	648.69	1.5	ANNUAL	ALL	5
506146.69	4319950.24	0.00151	420.18	648.69	1.5	ANNUAL	ALL	5
506156.71	4319919.37	0.00142	420.16	648.69	1.5	ANNUAL	ALL	5
506166.74	4319888.49	0.00135	419.93	648.69	1.5	ANNUAL	ALL	5
506191.52	4319850.86	0.00139	419.41	648.69	1.5	ANNUAL	ALL	5
506221.03	4319837.33	0.00157	418.88	648.69	1.5	ANNUAL	ALL	5
506250.54	4319823.81	0.0018	419.16	648.69	1.5	ANNUAL	ALL	5
506280.05	4319810.29	0.00205	418.95	648.69	1.5	ANNUAL	ALL	5
506309.57	4319796.77	0.00232	418.13	648.69	1.5	ANNUAL	ALL	5
506339.08	4319783.25	0.0026	417.28	648.69	1.5	ANNUAL	ALL	5
506113.33	4320075.56	0.00198	420.9	648.69	1.5	ANNUAL	ALL	5
506079.61	4320045.66	0.00155	421.34	648.69	1.5	ANNUAL	ALL	5
506090.25	4320012.89	0.00147	421.24	648.69	1.5	ANNUAL	ALL	5
506100.88	4319980.13	0.00139	420.91	648.69	1.5	ANNUAL	ALL	5
506111.52	4319947.36	0.0013	421.04	648.69	1.5	ANNUAL	ALL	5
506122.16	4319914.59	0.00121	421.74	648.69	1.5	ANNUAL	ALL	5
506132.8	4319881.83	0.00115	421.21	648.69	1.5	ANNUAL	ALL	5
506143.44	4319849.06	0.0011	420.57	648.69	1.5	ANNUAL	ALL	5
506164.42	4319825.5	0.00115	420.67	648.69	1.5	ANNUAL	ALL	5
506195.73	4319811.15	0.0013	419.84	648.69	1.5	ANNUAL	ALL	5
506227.05	4319796.8	0.00148	420.51	648.69	1.5	ANNUAL	ALL	5
506258.37	4319782.45	0.00169	421.19	648.69	1.5	ANNUAL	ALL	5
506289.69	4319768.1	0.00193	420.94	648.69	1.5	ANNUAL	ALL	5
506321.01	4319753.75	0.00218	419.57	648.69	1.5	ANNUAL	ALL	5
506352.33	4319739.4	0.00244	418.71	648.69	1.5	ANNUAL	ALL	5
506076.01	4320079.29	0.00168	421.14	648.69	1.5	ANNUAL	ALL	5
506004.83	4320053.58	0.00118	422.25	648.69	1.5	ANNUAL	ALL	5
506015.18	4320021.72	0.00113	422.5	648.69	1.5	ANNUAL	ALL	5
506025.52	4319989.86	0.00107	423.75	648.69	1.5	ANNUAL	ALL	5
506035.86	4319958.01	0.00102	424.16	648.69	1.5	ANNUAL	ALL	5
506046.2	4319926.15	0.00097	422.95	648.69	1.5	ANNUAL	ALL	5
506056.55	4319894.3	0.00091	423.07	648.69	1.5	ANNUAL	ALL	5
506066.89	4319862.44	0.00085	424.23	648.69	1.5	ANNUAL	ALL	5
506077.23	4319830.59	0.00081	423.95	648.69	1.5	ANNUAL	ALL	5
506087.57	4319798.73	0.00078	424.2	648.69	1.5	ANNUAL	ALL	5
506107.97	4319775.83	0.0008	424.12	648.69	1.5	ANNUAL	ALL	5
506138.42	4319761.87	0.0009	422.99	648.69	1.5	ANNUAL	ALL	5
506168.87	4319747.92	0.001	422.83	648.69	1.5	ANNUAL	ALL	5
506199.32	4319733.97	0.0011	425.54	648.69	1.5	ANNUAL	ALL	5
506229.77	4319720.02	0.00122	426.88	648.69	1.5	ANNUAL	ALL	5
506260.21	4319706.07	0.00143	424.36	648.69	1.5	ANNUAL	ALL	5
506290.66	4319692.12	0.00162	421.9	648.69	1.5	ANNUAL	ALL	5
506321.11	4319678.17	0.0018	420.36	648.69	1.5	ANNUAL	ALL	5
506001.39	4320086.75	0.00125	422.72	648.69	1.5	ANNUAL	ALL	5
505930.35	4320060.58	0.00092	423.95	648.69	1.5	ANNUAL	ALL	5
505940.99	4320027.82	0.00089	423.77	648.69	1.5	ANNUAL	ALL	5
505951.63	4319995.05	0.00086	423.87	648.69	1.5	ANNUAL	ALL	5
505962.27	4319962.29	0.00081	425.52	648.69	1.5	ANNUAL	ALL	5
505972.91	4319929.52	0.00077	424.93	648.69	1.5	ANNUAL	ALL	5
505983.54	4319896.75	0.00074	424.47	648.69	1.5	ANNUAL	ALL	5
505994.18	4319863.99	0.00069	425.38	648.69	1.5	ANNUAL	ALL	5
506004.82	4319831.22	0.00065	426.88	648.69	1.5	ANNUAL	ALL	5
506015.46	4319798.46	0.00061	427.78	648.69	1.5	ANNUAL	ALL	5
506026.1	4319765.69	0.00057	428.83	648.69	1.5	ANNUAL	ALL	5

506052.39	4319725.75	0.00057	429.84	648.69	1.5	ANNUAL	ALL	5
506083.71	4319711.4	0.00062	429.18	648.69	1.5	ANNUAL	ALL	5
506115.03	4319697.05	0.00071	426.26	648.69	1.5	ANNUAL	ALL	5
506146.35	4319682.7	0.0008	425.21	648.69	1.5	ANNUAL	ALL	5
506177.67	4319668.35	0.00087	428.25	648.69	1.5	ANNUAL	ALL	5
506208.99	4319654	0.00099	427.47	648.69	1.5	ANNUAL	ALL	5
506240.31	4319639.65	0.00116	424.32	648.69	1.5	ANNUAL	ALL	5
506271.63	4319625.3	0.0013	422.52	648.69	1.5	ANNUAL	ALL	5
506302.94	4319610.95	0.00145	420.73	648.69	1.5	ANNUAL	ALL	5
506334.26	4319596.6	0.00158	418.2	648.69	1.5	ANNUAL	ALL	5
505926.76	4320094.22	0.00095	425.25	648.69	1.5	ANNUAL	ALL	5
506339.08	4320071.65	0.00942	425.14	648.69	1.5	ANNUAL	ALL	5
506341.67	4320091.06	0.01096	425.96	648.69	1.5	ANNUAL	ALL	5
506344.26	4320110.47	0.01307	427.01	648.69	1.5	ANNUAL	ALL	5
506320.49	4320074.13	0.00795	423.68	648.69	1.5	ANNUAL	ALL	5
506323.08	4320093.54	0.00915	424.52	648.69	1.5	ANNUAL	ALL	5
506325.67	4320112.95	0.01079	425.34	648.69	1.5	ANNUAL	ALL	5
506301.91	4320076.61	0.00673	422.37	648.69	1.5	ANNUAL	ALL	5
506304.5	4320096.02	0.00779	423.12	648.69	1.5	ANNUAL	ALL	5
506307.09	4320115.43	0.00914	423.79	648.69	1.5	ANNUAL	ALL	5
506283.32	4320079.09	0.00579	421.47	648.69	1.5	ANNUAL	ALL	5
506285.91	4320098.5	0.00664	422.12	648.69	1.5	ANNUAL	ALL	5
506288.5	4320117.91	0.00769	422.67	648.69	1.5	ANNUAL	ALL	5
506264.74	4320081.57	0.00506	420.86	648.69	1.5	ANNUAL	ALL	5
506267.33	4320100.98	0.00574	421.55	648.69	1.5	ANNUAL	ALL	5
506269.92	4320120.39	0.00654	422.22	648.69	1.5	ANNUAL	ALL	5
506246.15	4320084.05	0.00445	421.08	648.69	1.5	ANNUAL	ALL	5
506248.74	4320103.46	0.005	421.8	648.69	1.5	ANNUAL	ALL	5
506251.33	4320122.87	0.00562	422.53	648.69	1.5	ANNUAL	ALL	5
506230.16	4320105.94	0.00439	422.24	648.69	1.5	ANNUAL	ALL	5
506232.75	4320125.35	0.00488	423.18	648.69	1.5	ANNUAL	ALL	5
506190.4	4320091.49	0.00317	421.37	648.69	1.5	ANNUAL	ALL	5
506192.99	4320110.9	0.00347	422.36	648.69	1.5	ANNUAL	ALL	5
506195.58	4320130.31	0.00378	423.46	648.69	1.5	ANNUAL	ALL	5
506153.23	4320096.45	0.0026	421.24	648.69	1.5	ANNUAL	ALL	5
506155.82	4320115.86	0.00281	422.04	648.69	1.5	ANNUAL	ALL	5
506158.41	4320135.27	0.00302	422.9	648.69	1.5	ANNUAL	ALL	5
506116.06	4320101.41	0.00216	421.39	648.69	1.5	ANNUAL	ALL	5
506118.65	4320120.82	0.00231	421.93	648.69	1.5	ANNUAL	ALL	5
506121.24	4320140.23	0.00246	422.76	648.69	1.5	ANNUAL	ALL	5
506078.89	4320106.37	0.00182	421.62	648.69	1.5	ANNUAL	ALL	5
506081.48	4320125.78	0.00193	422.33	648.69	1.5	ANNUAL	ALL	5
506084.07	4320145.19	0.00204	423.03	648.69	1.5	ANNUAL	ALL	5
506004.54	4320116.29	0.00134	423.4	648.69	1.5	ANNUAL	ALL	5
506007.13	4320135.7	0.00139	424.35	648.69	1.5	ANNUAL	ALL	5
506009.72	4320155.11	0.00143	425.37	648.69	1.5	ANNUAL	ALL	5
505930.2	4320126.21	0.00101	425.31	648.69	1.5	ANNUAL	ALL	5
505932.79	4320145.62	0.00104	426.64	648.69	1.5	ANNUAL	ALL	5
505935.38	4320165.03	0.00107	427.33	648.69	1.5	ANNUAL	ALL	5
506198.66	4320148.44	0.00407	424.61	648.69	1.5	ANNUAL	ALL	5
506161.76	4320155.13	0.00326	423.83	648.69	1.5	ANNUAL	ALL	5
506124.86	4320161.81	0.00264	423.89	648.69	1.5	ANNUAL	ALL	5
506087.96	4320168.5	0.00218	424.15	648.69	1.5	ANNUAL	ALL	5
506014.16	4320181.88	0.00153	425.61	648.69	1.5	ANNUAL	ALL	5
505938.64	4320185.76	0.00111	427.46	648.69	1.5	ANNUAL	ALL	5
506344.82	4320135.08	0.01692	427.59	648.69	1.5	ANNUAL	ALL	5
506326.08	4320134.33	0.01301	425.79	648.69	1.5	ANNUAL	ALL	5
506307.35	4320133.58	0.01043	424.14	648.69	1.5	ANNUAL	ALL	5
506287.95	4320140.61	0.00883	423.08	648.69	1.5	ANNUAL	ALL	5
506269.26	4320139.17	0.00721	422.81	648.69	1.5	ANNUAL	ALL	5
506345.96	4320154.73	0.02154	427.51	648.69	1.5	ANNUAL	ALL	5
506353.06	4320174.9	0.03084	426.9	648.69	1.5	ANNUAL	ALL	5
506329.19	4320163.11	0.01739	426.17	648.69	1.5	ANNUAL	ALL	5
506336.29	4320183.28	0.02278	426.28	648.69	1.5	ANNUAL	ALL	5
506312.42	4320171.49	0.01432	424.99	648.69	1.5	ANNUAL	ALL	5
506308.57	4320151.86	0.01204	424.42	648.69	1.5	ANNUAL	ALL	5
506319.52	4320191.66	0.01775	425.54	648.69	1.5	ANNUAL	ALL	5
506295.65	4320179.87	0.01195	424.38	648.69	1.5	ANNUAL	ALL	5
506291.8	4320160.24	0.01035	423.7	648.69	1.5	ANNUAL	ALL	5
506302.74	4320200.05	0.01424	425.22	648.69	1.5	ANNUAL	ALL	5
506278.87	4320188.26	0.01004	424.35	648.69	1.5	ANNUAL	ALL	5
506275.03	4320168.62	0.00887	423.75	648.69	1.5	ANNUAL	ALL	5
506285.97	4320208.43	0.0117	425.07	648.69	1.5	ANNUAL	ALL	5
506262.1	4320196.64	0.00847	424.97	648.69	1.5	ANNUAL	ALL	5
506258.26	4320177.01	0.0076	424.39	648.69	1.5	ANNUAL	ALL	5
506254.41	4320157.37	0.00679	423.71	648.69	1.5	ANNUAL	ALL	5
506269.2	4320216.81	0.00971	425.66	648.69	1.5	ANNUAL	ALL	5
506245.06	4320203.62	0.00708	426.83	648.69	1.5	ANNUAL	ALL	5
506240.66	4320181.18	0.00637	425.76	648.69	1.5	ANNUAL	ALL	5
506236.26	4320158.74	0.00572	424.49	648.69	1.5	ANNUAL	ALL	5
506252.43	4320225.19	0.00813	426.93	648.69	1.5	ANNUAL	ALL	5
506211.57	4320220.69	0.00533	428.51	648.69	1.5	ANNUAL	ALL	5
506207.3	4320198.88	0.00486	428.06	648.69	1.5	ANNUAL	ALL	5
506203.03	4320177.07	0.00449	426.92	648.69	1.5	ANNUAL	ALL	5

506218.88	4320241.96	0.00599	428.34	648.69	1.5	ANNUAL	ALL	5
506178.07	4320237.66	0.00435	427.09	648.69	1.5	ANNUAL	ALL	5
506173.87	4320216.24	0.00405	426.2	648.69	1.5	ANNUAL	ALL	5
506169.68	4320194.82	0.00376	425.28	648.69	1.5	ANNUAL	ALL	5
506165.48	4320173.4	0.00349	424.43	648.69	1.5	ANNUAL	ALL	5
506185.34	4320258.72	0.00471	428.2	648.69	1.5	ANNUAL	ALL	5
506144.55	4320254.56	0.00353	427.51	648.69	1.5	ANNUAL	ALL	5
506140.41	4320233.41	0.0033	427.23	648.69	1.5	ANNUAL	ALL	5
506136.27	4320212.27	0.00309	426.66	648.69	1.5	ANNUAL	ALL	5
506132.12	4320191.13	0.0029	425.65	648.69	1.5	ANNUAL	ALL	5
506151.8	4320275.48	0.00381	428.15	648.69	1.5	ANNUAL	ALL	5
506110.88	4320270.67	0.00292	427.89	648.69	1.5	ANNUAL	ALL	5
506106.48	4320248.24	0.00269	428.89	648.69	1.5	ANNUAL	ALL	5
506102.09	4320225.8	0.00256	427.76	648.69	1.5	ANNUAL	ALL	5
506097.69	4320203.36	0.00241	426.38	648.69	1.5	ANNUAL	ALL	5
506118.25	4320292.25	0.0032	426.54	648.69	1.5	ANNUAL	ALL	5
506043.85	4320304.51	0.00213	427.6	648.69	1.5	ANNUAL	ALL	5
506039.58	4320282.7	0.00198	429.19	648.69	1.5	ANNUAL	ALL	5
506035.3	4320260.89	0.00187	429	648.69	1.5	ANNUAL	ALL	5
506031.03	4320239.07	0.00178	428.06	648.69	1.5	ANNUAL	ALL	5
506026.76	4320217.26	0.00171	426.61	648.69	1.5	ANNUAL	ALL	5
506051.16	4320325.78	0.00231	425.35	648.69	1.5	ANNUAL	ALL	5
505976.7	4320337.73	0.00167	422.9	648.69	1.5	ANNUAL	ALL	5
505972.31	4320315.29	0.00159	423.44	648.69	1.5	ANNUAL	ALL	5
505967.91	4320292.86	0.00151	423.75	648.69	1.5	ANNUAL	ALL	5
505963.52	4320270.42	0.00143	424.11	648.69	1.5	ANNUAL	ALL	5
505959.12	4320247.98	0.00136	424.65	648.69	1.5	ANNUAL	ALL	5
505954.72	4320225.54	0.00126	426.86	648.69	1.5	ANNUAL	ALL	5
505950.33	4320203.11	0.00119	427.57	648.69	1.5	ANNUAL	ALL	5
505984.07	4320359.3	0.00176	422.38	648.69	1.5	ANNUAL	ALL	5
506348.76	4320208.51	0.03301	424.93	648.69	1.5	ANNUAL	ALL	5
506363.71	4320238.99	0.04225	424.4	648.69	1.5	ANNUAL	ALL	5
506331.92	4320216.76	0.02418	425.08	648.69	1.5	ANNUAL	ALL	5
506346.88	4320247.24	0.03138	424.2	648.69	1.5	ANNUAL	ALL	5
506315.09	4320225.02	0.01846	425.46	648.69	1.5	ANNUAL	ALL	5
506330.04	4320255.5	0.02367	425.03	648.69	1.5	ANNUAL	ALL	5
506298.26	4320233.28	0.01469	425.48	648.69	1.5	ANNUAL	ALL	5
506313.21	4320263.76	0.01841	425.96	648.69	1.5	ANNUAL	ALL	5
506281.42	4320241.54	0.01194	425.88	648.69	1.5	ANNUAL	ALL	5
506296.38	4320272.02	0.01469	426.85	648.69	1.5	ANNUAL	ALL	5
506264.59	4320249.8	0.00986	426.66	648.69	1.5	ANNUAL	ALL	5
506279.54	4320280.28	0.01201	427.54	648.69	1.5	ANNUAL	ALL	5
506230.92	4320266.31	0.00709	428.02	648.69	1.5	ANNUAL	ALL	5
506197.26	4320282.83	0.00535	428.83	648.69	1.5	ANNUAL	ALL	5
506212.21	4320313.31	0.00624	429.45	648.69	1.5	ANNUAL	ALL	5
506163.59	4320299.35	0.00433	427.5	648.69	1.5	ANNUAL	ALL	5
506178.54	4320329.83	0.00495	428.05	648.69	1.5	ANNUAL	ALL	5
506129.92	4320315.86	0.0036	425.29	648.69	1.5	ANNUAL	ALL	5
506144.88	4320346.34	0.0041	425.36	648.69	1.5	ANNUAL	ALL	5
506062.59	4320348.9	0.00256	423.37	648.69	1.5	ANNUAL	ALL	5
506077.54	4320379.38	0.00287	422.06	648.69	1.5	ANNUAL	ALL	5
505995.26	4320381.93	0.0019	421.83	648.69	1.5	ANNUAL	ALL	5
506010.21	4320412.41	0.00207	423.68	648.69	1.5	ANNUAL	ALL	5
506357.39	4320269.94	0.03318	425.73	648.69	1.5	ANNUAL	ALL	5
506340.38	4320277.83	0.02559	426.48	648.69	1.5	ANNUAL	ALL	5
506221.33	4320333.09	0.00672	430.84	648.69	1.5	ANNUAL	ALL	5
506187.32	4320348.88	0.00525	429.96	648.69	1.5	ANNUAL	ALL	5
506153.31	4320364.67	0.00433	427.11	648.69	1.5	ANNUAL	ALL	5
506085.28	4320396.25	0.00304	421.55	648.69	1.5	ANNUAL	ALL	5
506229.53	4320397.56	0.00717	430.48	648.69	1.5	ANNUAL	ALL	5
506208.43	4320373.22	0.00613	431.08	648.69	1.5	ANNUAL	ALL	5
506309.38	4320504.39	0.0085	427.01	648.69	1.5	ANNUAL	ALL	5
506277.69	4320494.69	0.00796	427.22	648.69	1.5	ANNUAL	ALL	5
506250.99	4320477.33	0.00741	427.94	648.69	1.5	ANNUAL	ALL	5
506229.29	4320452.29	0.00704	425.86	648.69	1.5	ANNUAL	ALL	5
506207.58	4320427.26	0.00647	424.29	648.69	1.5	ANNUAL	ALL	5
506185.87	4320402.22	0.0055	427.11	648.69	1.5	ANNUAL	ALL	5
506210.52	4320540.68	0.00553	419.47	648.69	1.5	ANNUAL	ALL	5
506189.65	4320516.61	0.00528	419.93	648.69	1.5	ANNUAL	ALL	5
506168.77	4320492.54	0.0049	420.13	648.69	1.5	ANNUAL	ALL	5
506147.9	4320468.46	0.00445	419.79	648.69	1.5	ANNUAL	ALL	5
506127.02	4320444.39	0.00396	419.63	648.69	1.5	ANNUAL	ALL	5
506106.15	4320420.32	0.00349	420.23	648.69	1.5	ANNUAL	ALL	5
506147.5	4320578.03	0.004	417.18	648.69	1.5	ANNUAL	ALL	5
506125.79	4320553	0.00376	419.54	648.69	1.5	ANNUAL	ALL	5
506104.08	4320527.96	0.00346	419.76	648.69	1.5	ANNUAL	ALL	5
506082.37	4320502.93	0.00312	420.01	648.69	1.5	ANNUAL	ALL	5
506060.67	4320477.89	0.00278	421.27	648.69	1.5	ANNUAL	ALL	5
506038.96	4320452.86	0.00245	423.55	648.69	1.5	ANNUAL	ALL	5

** CONCUNIT ug /m^3
** DEPUNIT g/m ^2

Health Risk Assessment

Lakeport Shopping Center Project

Risk Calculations

Unmitigated Construction

Cancer Risk Calculations Using OEHHA Cancer Risk Assumptions
Lakeport Shopping Center Project

Maximum Impacted Sensitive Receptor from Phase 1 Construction

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Infant

UTM: 506655.11 4320009.77

Cancer Potency Factor: 1.1 $(mg/kg\text{-}day)^{-1}$
Exposure Frequency 350 days/year
Averaging Period 25550 days

Construction Annual DPM Emissions (as PM10 Exhaust) Unmitigated

Phase	Time In Phase	Age	Maximum DPM Concentration (ug/m3)	Age Sensitivity Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Cancer Risk (/million)
1	0.2500	3rd Trimester	0.1310	10	361	0.85	0.250	1.51
1	0.2541	0-<1	0.1310	10	1090	0.85	0.254	4.65
—	0.1616	0-<1	0.0000	10	1090	0.85	0.162	0.00
2	0.5842	0-<1	0.0330	10	1090	0.85	0.584	2.69
2	0.1664	1-<2	0.0330	10	1090	0.85	0.17	0.77
3	0.8336	1-<2	0.0886	10	1090	0.85	0.83	10.31
3	0.3144	2-<3	0.0886	3	631	0.72	0.31	0.57
							Total	20.50

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Child

UTM: 506655.11 4320009.77

Cancer Potency Factor: 1.1 $(mg/kg\text{-}day)^{-1}$
Exposure Frequency 350 days/year
Averaging Period 25550 days

Construction Annual DPM Emissions (as PM10Exhaust) Unmitigated

Phase	Time In Phase	Age	Maximum DPM Concentration (ug/m3)	Age Sensitivity Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Unit Risk Factor $(ug/m3)^{-1}$
1	0.5041	Child	0.1310	3	745	0.72	0.50	1.60
—	0.0000	Child	0.0000	3	745	0.72	0.00	0.00
2	0.7507	Child	0.0330	3	745	0.72	0.75	0.60
3	1.1479	Child	0.0886	3	745	0.72	1.15	2.47
							Total	4.67

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Adult

UTM: 506655.11 4320009.77

Cancer Potency Factor: 1.1 $(mg/kg\text{-}day)^{-1}$
Exposure Frequency 350 days/year
Averaging Period 25550 days

Construction Annual DPM Emissions (as PM10 Exhaust) Unmitigated

Phase	Time In Phase	Age	Maximum DPM Concentration (ug/m3)	Age Sensitivity Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Unit Risk Factor $(ug/m3)^{-1}$
1	0.5041	Adult	0.1310	1	290	0.73	0.50	0.21
—	0.0000	Adult	0.0000	1	290	0.73	0.00	0.00
2	0.7507	Adult	0.0330	1	290	0.73	0.75	0.08
3	1.1479	Adult	0.0886	1	290	0.73	1.15	0.32
							Total	0.61

Cancer Risk Calculations Using OEHHA Cancer Risk Assumptions
Lakeport Shopping Center Project

Maximum Impacted Sensitive Receptor from Phase 2 Construction

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Infant

UTM: 506480.42 4320011.71

Cancer Potency Factor:	1.1	$(mg/kg\text{-}day)^{-1}$
Exposure Frequency	350	days/year
Averaging Period	25550	days

Construction Annual DPM Emissions (as PM10 Exhaust) Unmitigated

Phase	Time In Phase	Age	Maximum DPM Concentration (ug/m3)	Age Sensitivity Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Cancer Risk (/million)
1	0.2500	3rd Trimester	0.0239	10	361	0.85	0.250	0.28
1	0.2541	0-<1	0.0239	10	1090	0.85	0.254	0.85
—	0.1616	0-<1	0.0000	10	1090	0.85	0.162	0.00
2	0.5842	0-<1	0.2689	10	1090	0.85	0.584	21.93
2	0.1664	1-<2	0.2689	10	1090	0.85	0.17	6.25
3	0.8336	1-<2	0.0268	10	1090	0.85	0.83	3.12
3	0.3144	2-<3	0.0268	3	631	0.72	0.31	0.17
							Total	32.60

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Child

UTM: 506480.42 4320011.71

Cancer Potency Factor:	1.1	$(mg/kg\text{-}day)^{-1}$
Exposure Frequency	350	days/year
Averaging Period	25550	days

Construction Annual DPM Emissions (as PM10Exhaust) Unmitigated

Phase	Time In Phase	Age	Maximum DPM Concentration (ug/m3)	Age Sensitivity Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Unit Risk Factor $(ug/m3)^{-1}$
1	0.5041	Child	0.0239	3	745	0.72	0.50	0.29
—	0.0000	Child	0.0000	3	745	0.72	0.00	0.00
2	0.7507	Child	0.2689	3	745	0.72	0.75	4.90
3	1.1479	Child	0.0268	3	745	0.72	1.15	0.75
							Total	5.93

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Adult

UTM: 506480.42 4320011.71

Cancer Potency Factor:	1.1	$(mg/kg\text{-}day)^{-1}$
Exposure Frequency	350	days/year
Averaging Period	25550	days

Construction Annual DPM Emissions (as PM10 Exhaust) Unmitigated

Phase	Time In Phase	Age	Maximum DPM Concentration (ug/m3)	Age Sensitivity Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Unit Risk Factor $(ug/m3)^{-1}$
1	0.5041	Adult	0.0239	1	290	0.73	0.50	0.04
—	0.0000	Adult	0.0000	1	290	0.73	0.00	0.00
2	0.7507	Adult	0.2689	1	290	0.73	0.75	0.64
3	1.1479	Adult	0.0268	1	290	0.73	1.15	0.10
							Total	0.78

Cancer Risk Calculations Using OEHHA Cancer Risk Assumptions
Lakeport Shopping Center Project

Maximum Impacted Sensitive Receptor from Phase 3 Construction

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Infant

UTM: 506616.29 4320010.20

Cancer Potency Factor: 1.1 $(mg/kg\text{-}day)^{-1}$
Exposure Frequency 350 days/year
Averaging Period 25550 days

Construction Annual DPM Emissions (as PM10 Exhaust) Unmitigated

Phase	Time In Phase	Age	Maximum DPM Concentration (ug/m3)	Age Sensitivity Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Cancer Risk (/million)
1	0.2500	3rd Trimester	0.1066	10	361	0.85	0.250	1.23
1	0.2541	0-<1	0.1066	10	1090	0.85	0.254	3.78
—	0.1616	0-<1	0.0000	10	1090	0.85	0.162	0.00
2	0.5842	0-<1	0.0568	10	1090	0.85	0.584	4.64
2	0.1664	1-<2	0.0568	10	1090	0.85	0.17	1.32
3	0.8336	1-<2	0.0941	10	1090	0.85	0.83	10.96
3	0.3144	2-<3	0.0941	3	631	0.72	0.31	0.61
							Total	22.53

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Child

UTM: 506616.29 4320010.2

Cancer Potency Factor: 1.1 $(mg/kg\text{-}day)^{-1}$
Exposure Frequency 350 days/year
Averaging Period 25550 days

Construction Annual DPM Emissions (as PM10Exhaust) Unmitigated

Phase	Time In Phase	Age	Maximum DPM Concentration (ug/m3)	Age Sensitivity Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Unit Risk Factor $(ug/m3)^{-1}$
1	0.5041	Child	0.1066	3	745	0.72	0.50	1.30
—	0.0000	Child	0.0000	3	745	0.72	0.00	0.00
2	0.7507	Child	0.0568	3	745	0.72	0.75	1.03
3	1.1479	Child	0.0941	3	745	0.72	1.15	2.62
							Total	4.96

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Adult

UTM: 506616.29 4320010.2

Cancer Potency Factor: 1.1 $(mg/kg\text{-}day)^{-1}$
Exposure Frequency 350 days/year
Averaging Period 25550 days

Construction Annual DPM Emissions (as PM10 Exhaust) Unmitigated

Phase	Time In Phase	Age	Maximum DPM Concentration (ug/m3)	Age Sensitivity Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Unit Risk Factor $(ug/m3)^{-1}$
1	0.5041	Adult	0.1066	1	290	0.73	0.50	0.17
—	0.0000	Adult	0.0000	1	290	0.73	0.00	0.00
2	0.7507	Adult	0.0568	1	290	0.73	0.75	0.14
3	1.1479	Adult	0.0941	1	290	0.73	1.15	0.34
							Total	0.65

Lakeport Shopping Center Project

UTM: 506655.11 4320009.77
Estimates of Chronic Non-Cancer Hazard Index (CNCHI)
Unmitigated
Chronic Non-Cancer Hazard Index at the Maximum Impacted Sensitive Receptor
Reference Exposure Level (REL) for DPM: 5 ug/m3
CNCHI = DPM/REL

X (m)	Y (m)	Max DPM (ug/m3)	Max DPM (ug/m3)	CNCHI
506655.11	4320009.77	1.3100E-01	1.3100E-01	2.6200E-02

UTM: 506480.42 4320011.71
Estimates of Chronic Non-Cancer Hazard Index (CNCHI)
Unmitigated
Chronic Non-Cancer Hazard Index at the Maximum Impacted Sensitive Receptor
Reference Exposure Level (REL) for DPM: 5 ug/m3
CNCHI = DPM/REL

X (m)	Y (m)	Max DPM (ug/m3)	Max DPM (ug/m3)	CNCHI
506480.42	4320011.71	2.6892E-01	2.6892E-01	5.3784E-02

UTM: 506616.29 4320010.20
Estimates of Chronic Non-Cancer Hazard Index (CNCHI)
Unmitigated
Chronic Non-Cancer Hazard Index at the Maximum Impacted Sensitive Receptor
Reference Exposure Level (REL) for DPM: 5 ug/m3
CNCHI = DPM/REL

X (m)	Y (m)	Max DPM (ug/m3)	Max DPM (ug/m3)	CNCHI
506616.29	4320010.2	1.0658E-01	1.0658E-01	2.1316E-02

Health Risk Assessment

Lakeport Shopping Center Project

Mitigated Construction Scenario

Concentrations and Health Risks

Health Risk Assessment

Construction Health Risk Assessment

Phase 1 – Mitigated

Emissions and Concentrations

Lakeport Shopping Center Project

Phase 1

Estimation of Annual Onsite Construction Emissions

Start of Construction	5/1/2022		
End of Construction	11/1/2022	**Total**	
Number of Days	184	184	
Number of Hours	4,416	4,416	
Number of Years	0.50	0.50	
Size of the construction area source:	**12,131.4**	**sq-meters**	

CalEEMod Run	Year	On-site Construction Activity	Tier 4 Mitigated On-site DPM (tons)
Phase 1	2022	On-site Site Preparation	0.00016
Phase 1	2022	On-site Grading	0.00019
Phase 1	2022	On-site Paving	0.00046
Phase 1	2022	On-site Building Construction	0.01170
Phase 1	2022	On-site Architectural Coating	0.00004

Total Unmitigated DPM (On-site)	1.255E-02	tons
Average Emission*	1.140E+04	grams
	7.168E-04	grams/sec
	5.909E-08	grams/m2/sec

*Size of the construction area source accounted for in AERMOD.

Lakeport Shopping Center Project

Phase 1

Estimation of Annual Offsite Construction DPM Emissions (Unmitigated - No Change in Mitigated Construction Scenario)

Start of Construction		5/1/2022		
End of Construction		11/1/2022	**Total**	
Number of Days		184	184	
Number of Hours		4,416	4416	

	Phase 1 (2022)	Phase 1 (2022)	Phase 1 (2022)	Phase 1 (2022) Building	Phase 1 (2022) Architectural
Construction Trip Type	Site Preparation	Grading	Paving	Construction	Coating
Haul Truck	0.00001	0.00001	0.00002	0.00005	0.00000
Vendor Truck	0.00000	0.00000	0.00003	0.00071	0.00000
Worker	0.00000	0.00000	0.00001	0.00015	0.00001
Total	0.00001	0.00001	0.00006	0.00091	0.00001

	Haul Truck (tons)	**Vendor Truck (tons)**	**Worker (tons)**	**Total (tons)**
Total DPM	9.000E-05	7.400E-04	1.700E-04	1.000E-03
Average Emissions				
Grams	8.172E+01	6.719E+02	1.544E+02	
Grams/sec	5.140E-06	4.227E-05	9.710E-06	
Default Distance*	20	7.3	10.8	

*Default Vehicle Travel Distance in CalEEMod

Vehicle Travel Distances in the Construction HRA (miles)			
Road Segment 1 (mi)	0.43	0.43	0.43
Road Segment 2 (mi)	0.45	0.45	0.45
Road Segment 3 (mi)	0.53	0.53	0.53
Road Segment 4 (mi)	0.54	0.54	0.54
Trip Distribution (percent)			
Road Segment 1	25.0%	25.0%	25.0%
Road Segment 2	25.0%	25.0%	25.0%
Road Segment 3	25.0%	25.0%	25.0%
Road Segment 4	25.0%	25.0%	25.0%

Total Average Offsite Vehicle Emissions Along Travel Distance (g/sec)				**Total**
Road Segment 1	2.733E-08	6.156E-07	9.559E-08	7.385E-07
Road Segment 2	2.872E-08	6.470E-07	1.005E-07	7.762E-07
Road Segment 3	3.418E-08	7.699E-07	1.195E-07	9.236E-07
Road Segment 4	3.471E-08	7.818E-07	1.214E-07	9.379E-07

Maximum DPM (ug/m3)	UTM X	UTM Y
1.5490E-02	506655.11	4320009.77

* AERMOD (19191): G:\LSC_HRA\P1 Mitigated\P1Mitigated.isc 10/11/2021
* AERMET (14134): 10:50:24 AM
* MODELING OPTIONS USED: Reg DFAULT CONCELEV FLGPOL URBAN
* PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 652 RECEPTORS.
* FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

* X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM YRS	NET ID
506703.91	4320437.76	0.00113	420.88	432.12	1.5	ANNUAL	ALL	5	
506676.87	4320495.35	0.00107	423.66	431.49	1.5	ANNUAL	ALL	5	
506701.34	4320484.15	0.00086	424.59	431.49	1.5	ANNUAL	ALL	5	
506724.35	4320469.2	0.00073	423.58	432.12	1.5	ANNUAL	ALL	5	
506717.54	4320558.3	0.00052	428.24	432.02	1.5	ANNUAL	ALL	5	
506691.19	4320565.86	0.00073	420.45	432.12	1.5	ANNUAL	ALL	5	
506742.21	4320547.04	0.00042	431.7	431.7	1.5	ANNUAL	ALL	5	
506765.22	4320532.08	0.00036	432.05	432.05	1.5	ANNUAL	ALL	5	
506718.35	4320369.19	0.00141	418.53	418.53	1.5	ANNUAL	ALL	5	
506747.68	4320355.39	0.00108	418.67	445.92	1.5	ANNUAL	ALL	5	
506704.99	4320416.93	0.00125	420.06	430.6	1.5	ANNUAL	ALL	5	
506734.32	4320403.12	0.00097	418.93	432.12	1.5	ANNUAL	ALL	5	
506763.65	4320389.32	0.00078	418.46	445.92	1.5	ANNUAL	ALL	5	
506720.96	4320450.86	0.00087	421.47	432.12	1.5	ANNUAL	ALL	5	
506750.29	4320437.05	0.0007	419.57	432.12	1.5	ANNUAL	ALL	5	
506779.62	4320423.25	0.00058	418.64	445.92	1.5	ANNUAL	ALL	5	
506721.34	4320488.78	0.00068	425.73	432.12	1.5	ANNUAL	ALL	5	
506751.59	4320477.88	0.00053	426.13	432.12	1.5	ANNUAL	ALL	5	
506768.87	4320552.65	0.00034	431.71	432.04	1.5	ANNUAL	ALL	5	
506757.91	4320246.35	0.00221	419.21	648.69	1.5	ANNUAL	ALL	5	
506776.07	4320220.81	0.00244	419.9	445.92	1.5	ANNUAL	ALL	5	
506774.97	4320254.45	0.00169	420.15	445.92	1.5	ANNUAL	ALL	5	
506754.47	4320274.47	0.00174	419.27	445.92	1.5	ANNUAL	ALL	5	
506755.14	4320298.58	0.00144	418.81	445.92	1.5	ANNUAL	ALL	5	
507069.29	4320032.11	0.00097	411.74	445.92	1.5	ANNUAL	ALL	5	
507144.29	4320032.11	0.00064	408.5	445.92	1.5	ANNUAL	ALL	5	
507136.82	4320049.44	0.00063	410.64	445.92	1.5	ANNUAL	ALL	5	
507129.35	4320066.77	0.00061	412.6	445.92	1.5	ANNUAL	ALL	5	
507121.88	4320084.11	0.00059	415.74	445.92	1.5	ANNUAL	ALL	5	
507114.41	4320101.44	0.00057	418.21	445.92	1.5	ANNUAL	ALL	5	
507106.94	4320118.77	0.00053	419.88	445.92	1.5	ANNUAL	ALL	5	
507099.47	4320136.11	0.0005	421.37	445.92	1.5	ANNUAL	ALL	5	
507092	4320153.44	0.00047	423.61	445.92	1.5	ANNUAL	ALL	5	
507084.53	4320170.77	0.00044	425.39	445.92	1.5	ANNUAL	ALL	5	
507077.06	4320188.11	0.00042	427.1	445.92	1.5	ANNUAL	ALL	5	
507069.59	4320205.44	0.00039	429.72	445.92	1.5	ANNUAL	ALL	5	
507219.29	4320032.11	0.00045	407.19	445.92	1.5	ANNUAL	ALL	5	
507211.82	4320049.45	0.00044	407.27	445.92	1.5	ANNUAL	ALL	5	
507204.34	4320066.79	0.00043	407.4	445.92	1.5	ANNUAL	ALL	5	
507196.87	4320084.13	0.00041	408.03	445.92	1.5	ANNUAL	ALL	5	
507189.39	4320101.47	0.0004	409.32	445.92	1.5	ANNUAL	ALL	5	
507181.92	4320118.82	0.00038	410.51	445.92	1.5	ANNUAL	ALL	5	
507174.45	4320136.16	0.00037	411.8	445.92	1.5	ANNUAL	ALL	5	
507166.97	4320153.5	0.00036	413.4	445.92	1.5	ANNUAL	ALL	5	
507159.5	4320170.84	0.00034	414.94	445.92	1.5	ANNUAL	ALL	5	
507152.02	4320188.18	0.00033	416.48	445.92	1.5	ANNUAL	ALL	5	
507144.55	4320205.52	0.00031	417.42	445.92	1.5	ANNUAL	ALL	5	
506837.97	4319876.1	0.00353	411.74	648.69	1.5	ANNUAL	ALL	5	
506712.12	4319999.57	0.0143	414.57	648.69	1.5	ANNUAL	ALL	5	
506715.28	4319990.41	0.01273	414.55	648.69	1.5	ANNUAL	ALL	5	
506716.15	4319971.68	0.01035	414.55	648.69	1.5	ANNUAL	ALL	5	
506717.01	4319952.95	0.00858	414.63	648.69	1.5	ANNUAL	ALL	5	
506717.88	4319934.22	0.00721	414.72	648.69	1.5	ANNUAL	ALL	5	
506718.74	4319915.49	0.00614	414.8	648.69	1.5	ANNUAL	ALL	5	
506790.5	4319906.09	0.00494	413.43	648.69	1.5	ANNUAL	ALL	5	
506756.99	4319898.49	0.00515	414.02	648.69	1.5	ANNUAL	ALL	5	
506738.3	4319897.62	0.00525	414.15	648.69	1.5	ANNUAL	ALL	5	
506719.61	4319896.76	0.00527	414.33	648.69	1.5	ANNUAL	ALL	5	
506810.41	4319896.04	0.00433	412.28	648.69	1.5	ANNUAL	ALL	5	
506776.55	4319880.62	0.00438	413.08	648.69	1.5	ANNUAL	ALL	5	
506757.86	4319879.76	0.00451	413.22	648.69	1.5	ANNUAL	ALL	5	
506739.16	4319878.89	0.00457	413.28	648.69	1.5	ANNUAL	ALL	5	
506720.47	4319878.03	0.00457	413.49	648.69	1.5	ANNUAL	ALL	5	
506794.15	4319850.39	0.00351	411.86	648.69	1.5	ANNUAL	ALL	5	
506825.89	4319864.84	0.00348	411.67	648.69	1.5	ANNUAL	ALL	5	
506759.59	4319842.3	0.00353	412.09	648.69	1.5	ANNUAL	ALL	5	
506740.89	4319841.43	0.00354	412.29	648.69	1.5	ANNUAL	ALL	5	
506722.2	4319840.57	0.00351	412.5	648.69	1.5	ANNUAL	ALL	5	
506796.94	4319813.41	0.00287	411.86	648.69	1.5	ANNUAL	ALL	5	

506813.87	4319821.12	0.00289	411.64	648.69	1.5	ANNUAL	ALL	5
506830.79	4319828.82	0.00288	411.39	648.69	1.5	ANNUAL	ALL	5
506847.72	4319836.53	0.00284	411.17	648.69	1.5	ANNUAL	ALL	5
506780.01	4319805.7	0.00281	411.9	648.69	1.5	ANNUAL	ALL	5
506761.32	4319804.84	0.00283	412.02	648.69	1.5	ANNUAL	ALL	5
506742.62	4319803.97	0.00282	412.19	648.69	1.5	ANNUAL	ALL	5
506723.93	4319803.11	0.00278	412.29	648.69	1.5	ANNUAL	ALL	5
506797.9	4319775.6	0.00237	411.56	648.69	1.5	ANNUAL	ALL	5
506830.21	4319790.31	0.00242	411.21	648.69	1.5	ANNUAL	ALL	5
506862.53	4319805.03	0.00238	410.87	648.69	1.5	ANNUAL	ALL	5
506966.08	4319865.66	0.00198	410.16	648.69	1.5	ANNUAL	ALL	5
506763.05	4319767.38	0.00231	411.79	648.69	1.5	ANNUAL	ALL	5
506744.35	4319766.51	0.00229	412.07	648.69	1.5	ANNUAL	ALL	5
506725.66	4319765.65	0.00225	412.15	648.69	1.5	ANNUAL	ALL	5
506800.4	4319738.49	0.00199	411.43	648.69	1.5	ANNUAL	ALL	5
506817.33	4319746.2	0.00202	411.12	648.69	1.5	ANNUAL	ALL	5
506834.25	4319753.9	0.00205	410.98	648.69	1.5	ANNUAL	ALL	5
506851.18	4319761.61	0.00205	410.81	648.69	1.5	ANNUAL	ALL	5
506868.11	4319769.32	0.00204	410.68	648.69	1.5	ANNUAL	ALL	5
506885.04	4319777.03	0.00201	410.6	648.69	1.5	ANNUAL	ALL	5
506993.52	4319840.54	0.00168	409.87	648.69	1.5	ANNUAL	ALL	5
507000.44	4319857.81	0.00168	409.74	648.69	1.5	ANNUAL	ALL	5
507007.36	4319875.07	0.00167	409.83	648.69	1.5	ANNUAL	ALL	5
507048.87	4319978.66	0.00128	410.72	648.69	1.5	ANNUAL	ALL	5
507055.79	4319995.93	0.00118	410.99	648.69	1.5	ANNUAL	ALL	5
507062.71	4320013.19	0.00108	411.2	445.92	1.5	ANNUAL	ALL	5
506783.47	4319730.78	0.00193	411.72	648.69	1.5	ANNUAL	ALL	5
506764.78	4319729.92	0.00192	411.86	648.69	1.5	ANNUAL	ALL	5
506746.08	4319729.05	0.00189	411.94	648.69	1.5	ANNUAL	ALL	5
506727.39	4319728.19	0.00186	412.1	648.69	1.5	ANNUAL	ALL	5
506803.86	4319663.57	0.00144	411.87	648.69	1.5	ANNUAL	ALL	5
506820.79	4319671.28	0.00148	411.31	648.69	1.5	ANNUAL	ALL	5
506837.71	4319678.98	0.00151	411.4	648.69	1.5	ANNUAL	ALL	5
506854.64	4319686.69	0.00153	411.42	648.69	1.5	ANNUAL	ALL	5
506871.57	4319694.4	0.00154	411.36	648.69	1.5	ANNUAL	ALL	5
506888.5	4319702.11	0.00153	411.07	648.69	1.5	ANNUAL	ALL	5
506905.42	4319709.82	0.00152	410.93	648.69	1.5	ANNUAL	ALL	5
506922.35	4319717.53	0.0015	410.76	648.69	1.5	ANNUAL	ALL	5
507006.99	4319756.07	0.00133	409.92	648.69	1.5	ANNUAL	ALL	5
507023.92	4319763.78	0.00128	409.47	648.69	1.5	ANNUAL	ALL	5
507047.76	4319788.75	0.00125	409.38	648.69	1.5	ANNUAL	ALL	5
507054.68	4319806.01	0.00125	409.45	648.69	1.5	ANNUAL	ALL	5
507061.6	4319823.28	0.00125	409.47	648.69	1.5	ANNUAL	ALL	5
507068.52	4319840.54	0.00124	409.38	648.69	1.5	ANNUAL	ALL	5
507075.44	4319857.81	0.00121	409.19	648.69	1.5	ANNUAL	ALL	5
507082.36	4319875.07	0.00118	408.85	648.69	1.5	ANNUAL	ALL	5
507089.28	4319892.34	0.00114	408.66	648.69	1.5	ANNUAL	ALL	5
507096.2	4319909.6	0.00109	408.51	648.69	1.5	ANNUAL	ALL	5
507103.12	4319926.87	0.00103	408.47	648.69	1.5	ANNUAL	ALL	5
507110.03	4319944.13	0.00097	408.5	648.69	1.5	ANNUAL	ALL	5
507116.95	4319961.4	0.00091	408.54	445.92	1.5	ANNUAL	ALL	5
507123.87	4319978.66	0.00084	408.45	445.92	1.5	ANNUAL	ALL	5
507130.79	4319995.93	0.00077	408.32	445.92	1.5	ANNUAL	ALL	5
507137.71	4320013.19	0.00071	408.43	445.92	1.5	ANNUAL	ALL	5
506786.93	4319655.86	0.00139	412.57	648.69	1.5	ANNUAL	ALL	5
506768.24	4319655	0.00138	412.66	648.69	1.5	ANNUAL	ALL	5
506749.54	4319654.13	0.00135	412.48	648.69	1.5	ANNUAL	ALL	5
506730.85	4319653.27	0.00131	412.96	648.69	1.5	ANNUAL	ALL	5
506807.32	4319588.65	0.00107	421.4	648.69	1.5	ANNUAL	ALL	5
506824.25	4319596.36	0.00111	421.09	648.69	1.5	ANNUAL	ALL	5
506841.17	4319604.06	0.00114	419.7	648.69	1.5	ANNUAL	ALL	5
506858.1	4319611.77	0.00118	417.39	648.69	1.5	ANNUAL	ALL	5
506875.03	4319619.48	0.00119	415.22	648.69	1.5	ANNUAL	ALL	5
506891.96	4319627.19	0.0012	413.58	648.69	1.5	ANNUAL	ALL	5
506908.88	4319634.9	0.0012	412.57	648.69	1.5	ANNUAL	ALL	5
506925.81	4319642.61	0.00119	411.99	648.69	1.5	ANNUAL	ALL	5
506942.74	4319650.31	0.00118	411.32	648.69	1.5	ANNUAL	ALL	5
507044.3	4319696.56	0.00105	409.32	648.69	1.5	ANNUAL	ALL	5
507061.23	4319704.27	0.00102	409.4	648.69	1.5	ANNUAL	ALL	5
507078.16	4319711.98	0.00099	409.48	648.69	1.5	ANNUAL	ALL	5
507102	4319736.95	0.00096	409.58	648.69	1.5	ANNUAL	ALL	5
507108.92	4319754.22	0.00097	409.54	648.69	1.5	ANNUAL	ALL	5
507115.84	4319771.48	0.00097	409.4	648.69	1.5	ANNUAL	ALL	5
507122.76	4319788.75	0.00096	409.31	648.69	1.5	ANNUAL	ALL	5
507129.68	4319806.01	0.00095	409.22	648.69	1.5	ANNUAL	ALL	5
507136.6	4319823.28	0.00093	409.08	648.69	1.5	ANNUAL	ALL	5
507143.52	4319840.54	0.00091	408.99	648.69	1.5	ANNUAL	ALL	5
507150.44	4319857.81	0.00088	408.63	648.69	1.5	ANNUAL	ALL	5
507157.36	4319875.07	0.00084	408.12	648.69	1.5	ANNUAL	ALL	5
507164.28	4319892.34	0.00081	407.93	445.79	1.5	ANNUAL	ALL	5
507171.2	4319909.6	0.00076	407.81	445.88	1.5	ANNUAL	ALL	5
507178.12	4319926.87	0.00072	407.74	445.92	1.5	ANNUAL	ALL	5
507185.03	4319944.13	0.00067	407.67	445.92	1.5	ANNUAL	ALL	5
507191.95	4319961.4	0.00063	407.61	445.92	1.5	ANNUAL	ALL	5

507198.87	4319978.66	0.00058	407.48	445.92	1.5	ANNUAL	ALL	5
507205.79	4319995.93	0.00053	407.32	445.92	1.5	ANNUAL	ALL	5
507212.71	4320013.19	0.00049	407.22	445.92	1.5	ANNUAL	ALL	5
506790.39	4319580.94	0.00103	421.61	648.69	1.5	ANNUAL	ALL	5
506771.7	4319580.08	0.00101	421.65	648.69	1.5	ANNUAL	ALL	5
506753	4319579.21	0.00098	422.3	648.69	1.5	ANNUAL	ALL	5
506734.31	4319578.35	0.00093	424.74	648.69	1.5	ANNUAL	ALL	5
506655.11	4320009.77	0.01549	415.49	648.69	1.5	ANNUAL	ALL	5
506635.7	4320009.98	0.01416	416.51	648.69	1.5	ANNUAL	ALL	5
506616.29	4320010.2	0.01261	417.44	648.69	1.5	ANNUAL	ALL	5
506596.88	4320010.42	0.01094	418.06	648.69	1.5	ANNUAL	ALL	5
506577.47	4320010.63	0.00916	419.08	648.69	1.5	ANNUAL	ALL	5
506558.06	4320010.85	0.00738	421.03	648.69	1.5	ANNUAL	ALL	5
506538.65	4320011.06	0.00577	422.45	648.69	1.5	ANNUAL	ALL	5
506519.24	4320011.28	0.00455	423.11	648.69	1.5	ANNUAL	ALL	5
506499.83	4320011.5	0.0036	423.16	648.69	1.5	ANNUAL	ALL	5
506480.42	4320011.71	0.00283	423.21	648.69	1.5	ANNUAL	ALL	5
506693.72	4319990.59	0.01308	414.73	648.69	1.5	ANNUAL	ALL	5
506674.31	4319990.8	0.01286	414.94	648.69	1.5	ANNUAL	ALL	5
506654.9	4319991.02	0.01221	415.38	648.69	1.5	ANNUAL	ALL	5
506635.49	4319991.24	0.01128	416.6	648.69	1.5	ANNUAL	ALL	5
506616.08	4319991.45	0.01012	417.71	648.69	1.5	ANNUAL	ALL	5
506596.67	4319991.67	0.00884	418.13	648.69	1.5	ANNUAL	ALL	5
506577.26	4319991.88	0.00753	418.76	648.69	1.5	ANNUAL	ALL	5
506557.85	4319992.1	0.00622	420.12	648.69	1.5	ANNUAL	ALL	5
506538.44	4319992.31	0.00509	420.96	648.69	1.5	ANNUAL	ALL	5
506519.03	4319992.53	0.00413	421.4	648.69	1.5	ANNUAL	ALL	5
506499.62	4319992.75	0.00332	421.69	648.69	1.5	ANNUAL	ALL	5
506480.21	4319992.96	0.00266	422.04	648.69	1.5	ANNUAL	ALL	5
506693.51	4319971.84	0.01053	414.75	648.69	1.5	ANNUAL	ALL	5
506674.1	4319972.06	0.01033	415.05	648.69	1.5	ANNUAL	ALL	5
506654.69	4319972.27	0.00984	415.46	648.69	1.5	ANNUAL	ALL	5
506635.28	4319972.49	0.00915	416.77	648.69	1.5	ANNUAL	ALL	5
506615.87	4319972.7	0.00828	417.86	648.69	1.5	ANNUAL	ALL	5
506596.46	4319972.92	0.00732	417.99	648.69	1.5	ANNUAL	ALL	5
506577.05	4319973.13	0.00633	418.24	648.69	1.5	ANNUAL	ALL	5
506557.64	4319973.35	0.00536	418.86	648.69	1.5	ANNUAL	ALL	5
506538.23	4319973.57	0.00448	419.45	648.69	1.5	ANNUAL	ALL	5
506518.82	4319973.78	0.00369	420	648.69	1.5	ANNUAL	ALL	5
506499.41	4319974	0.00301	420.53	648.69	1.5	ANNUAL	ALL	5
506480	4319974.21	0.00244	421.06	648.69	1.5	ANNUAL	ALL	5
506693.31	4319953.09	0.00864	414.83	648.69	1.5	ANNUAL	ALL	5
506673.9	4319953.31	0.00846	415.22	648.69	1.5	ANNUAL	ALL	5
506654.49	4319953.52	0.00807	415.5	648.69	1.5	ANNUAL	ALL	5
506635.08	4319953.74	0.00753	416.37	648.69	1.5	ANNUAL	ALL	5
506615.67	4319953.95	0.00687	417.07	648.69	1.5	ANNUAL	ALL	5
506596.26	4319954.17	0.00614	417.2	648.69	1.5	ANNUAL	ALL	5
506576.85	4319954.39	0.00539	417.66	648.69	1.5	ANNUAL	ALL	5
506557.44	4319954.6	0.00462	418.46	648.69	1.5	ANNUAL	ALL	5
506538.03	4319954.82	0.00391	419.14	648.69	1.5	ANNUAL	ALL	5
506518.62	4319955.03	0.00327	419.76	648.69	1.5	ANNUAL	ALL	5
506499.21	4319955.25	0.00271	420.33	648.69	1.5	ANNUAL	ALL	5
506479.8	4319955.46	0.00224	420.76	648.69	1.5	ANNUAL	ALL	5
506693.1	4319934.34	0.00721	414.86	648.69	1.5	ANNUAL	ALL	5
506673.69	4319934.56	0.00704	415.28	648.69	1.5	ANNUAL	ALL	5
506654.28	4319934.77	0.00672	415.39	648.69	1.5	ANNUAL	ALL	5
506634.87	4319934.99	0.00629	415.85	648.69	1.5	ANNUAL	ALL	5
506615.46	4319935.2	0.00577	416.27	648.69	1.5	ANNUAL	ALL	5
506596.05	4319935.42	0.0052	416.53	648.69	1.5	ANNUAL	ALL	5
506576.64	4319935.64	0.00462	417.29	648.69	1.5	ANNUAL	ALL	5
506557.23	4319935.85	0.00401	418.38	648.69	1.5	ANNUAL	ALL	5
506537.82	4319936.07	0.00343	419.17	648.69	1.5	ANNUAL	ALL	5
506518.41	4319936.28	0.00291	419.81	648.69	1.5	ANNUAL	ALL	5
506499	4319936.5	0.00245	420.34	648.69	1.5	ANNUAL	ALL	5
506479.59	4319936.72	0.00205	420.62	648.69	1.5	ANNUAL	ALL	5
506692.89	4319915.59	0.00609	414.75	648.69	1.5	ANNUAL	ALL	5
506673.48	4319915.81	0.00593	414.94	648.69	1.5	ANNUAL	ALL	5
506654.07	4319916.02	0.00566	414.79	648.69	1.5	ANNUAL	ALL	5
506634.66	4319916.24	0.00532	415.3	648.69	1.5	ANNUAL	ALL	5
506615.25	4319916.46	0.00491	416.09	648.69	1.5	ANNUAL	ALL	5
506595.84	4319916.67	0.00447	416.92	648.69	1.5	ANNUAL	ALL	5
506576.43	4319916.89	0.004	417.89	648.69	1.5	ANNUAL	ALL	5
506557.02	4319917.1	0.00349	418.8	648.69	1.5	ANNUAL	ALL	5
506537.61	4319917.32	0.00303	419.34	648.69	1.5	ANNUAL	ALL	5
506518.2	4319917.54	0.00261	419.67	648.69	1.5	ANNUAL	ALL	5
506498.79	4319917.75	0.00223	419.94	648.69	1.5	ANNUAL	ALL	5
506479.38	4319917.97	0.0019	420.22	648.69	1.5	ANNUAL	ALL	5
506692.68	4319896.84	0.0052	414.39	648.69	1.5	ANNUAL	ALL	5
506673.27	4319897.06	0.00505	414.44	648.69	1.5	ANNUAL	ALL	5
506653.86	4319897.28	0.00483	414.4	648.69	1.5	ANNUAL	ALL	5
506634.45	4319897.49	0.00455	415.09	648.69	1.5	ANNUAL	ALL	5
506615.04	4319897.71	0.00423	416.08	648.69	1.5	ANNUAL	ALL	5
506595.63	4319897.92	0.00387	417.04	648.69	1.5	ANNUAL	ALL	5
506576.22	4319898.14	0.00349	417.93	648.69	1.5	ANNUAL	ALL	5

506556.81	4319898.35	0.00309	418.5	648.69	1.5	ANNUAL	ALL	5
506537.4	4319898.57	0.00271	419.17	648.69	1.5	ANNUAL	ALL	5
506517.99	4319898.79	0.00236	419.46	648.69	1.5	ANNUAL	ALL	5
506498.58	4319899	0.00205	419.37	648.69	1.5	ANNUAL	ALL	5
506479.17	4319899.22	0.00177	419.26	648.69	1.5	ANNUAL	ALL	5
506692.47	4319878.1	0.00448	413.87	648.69	1.5	ANNUAL	ALL	5
506673.06	4319878.31	0.00435	413.83	648.69	1.5	ANNUAL	ALL	5
506653.65	4319878.53	0.00416	414.15	648.69	1.5	ANNUAL	ALL	5
506634.24	4319878.74	0.00393	415.14	648.69	1.5	ANNUAL	ALL	5
506614.83	4319878.96	0.00367	416.18	648.69	1.5	ANNUAL	ALL	5
506595.42	4319879.17	0.00338	416.93	648.69	1.5	ANNUAL	ALL	5
506576.01	4319879.39	0.00307	417.47	648.69	1.5	ANNUAL	ALL	5
506556.6	4319879.61	0.00277	417.52	648.69	1.5	ANNUAL	ALL	5
506537.19	4319879.82	0.00244	418.71	648.69	1.5	ANNUAL	ALL	5
506517.78	4319880.04	0.00215	419.19	648.69	1.5	ANNUAL	ALL	5
506498.37	4319880.25	0.0019	418.6	648.69	1.5	ANNUAL	ALL	5
506478.96	4319880.47	0.00167	417.72	648.69	1.5	ANNUAL	ALL	5
506692.06	4319840.6	0.00341	412.81	648.69	1.5	ANNUAL	ALL	5
506672.65	4319840.81	0.0033	413	648.69	1.5	ANNUAL	ALL	5
506653.24	4319841.03	0.00316	413.28	648.69	1.5	ANNUAL	ALL	5
506633.83	4319841.24	0.003	413.73	648.69	1.5	ANNUAL	ALL	5
506614.42	4319841.46	0.00282	414.28	648.69	1.5	ANNUAL	ALL	5
506595.01	4319841.68	0.00262	414.87	648.69	1.5	ANNUAL	ALL	5
506575.6	4319841.89	0.00242	415.47	648.69	1.5	ANNUAL	ALL	5
506556.19	4319842.11	0.00222	416.29	648.69	1.5	ANNUAL	ALL	5
506536.78	4319842.32	0.00201	416.45	648.69	1.5	ANNUAL	ALL	5
506517.37	4319842.54	0.00181	416.29	648.69	1.5	ANNUAL	ALL	5
506497.96	4319842.76	0.00161	415.98	648.69	1.5	ANNUAL	ALL	5
506478.55	4319842.97	0.00143	415.58	648.69	1.5	ANNUAL	ALL	5
506691.64	4319803.1	0.00268	412.64	648.69	1.5	ANNUAL	ALL	5
506672.23	4319803.32	0.00259	412.8	648.69	1.5	ANNUAL	ALL	5
506652.82	4319803.53	0.00248	412.98	648.69	1.5	ANNUAL	ALL	5
506633.41	4319803.75	0.00236	413.2	648.69	1.5	ANNUAL	ALL	5
506614	4319803.96	0.00223	413.45	648.69	1.5	ANNUAL	ALL	5
506594.59	4319804.18	0.00209	413.72	648.69	1.5	ANNUAL	ALL	5
506575.18	4319804.39	0.00195	413.97	648.69	1.5	ANNUAL	ALL	5
506555.77	4319804.61	0.0018	413.91	648.69	1.5	ANNUAL	ALL	5
506536.36	4319804.83	0.00166	414.24	648.69	1.5	ANNUAL	ALL	5
506516.95	4319805.04	0.00151	414.51	648.69	1.5	ANNUAL	ALL	5
506497.54	4319805.26	0.00137	414.66	648.69	1.5	ANNUAL	ALL	5
506478.13	4319805.47	0.00124	414.8	648.69	1.5	ANNUAL	ALL	5
506691.22	4319765.6	0.00215	412.45	648.69	1.5	ANNUAL	ALL	5
506671.81	4319765.82	0.00208	412.57	648.69	1.5	ANNUAL	ALL	5
506652.4	4319766.03	0.00199	412.82	648.69	1.5	ANNUAL	ALL	5
506632.99	4319766.25	0.0019	413.08	648.69	1.5	ANNUAL	ALL	5
506613.58	4319766.47	0.0018	413.26	648.69	1.5	ANNUAL	ALL	5
506594.17	4319766.68	0.0017	413.39	648.69	1.5	ANNUAL	ALL	5
506574.76	4319766.9	0.0016	413.53	648.69	1.5	ANNUAL	ALL	5
506555.35	4319767.11	0.00149	413.39	648.69	1.5	ANNUAL	ALL	5
506535.94	4319767.33	0.00139	413.88	648.69	1.5	ANNUAL	ALL	5
506516.53	4319767.54	0.00129	414.27	648.69	1.5	ANNUAL	ALL	5
506497.12	4319767.76	0.00118	414.47	648.69	1.5	ANNUAL	ALL	5
506477.71	4319767.98	0.00108	414.66	648.69	1.5	ANNUAL	ALL	5
506690.8	4319728.1	0.00176	412.38	648.69	1.5	ANNUAL	ALL	5
506671.39	4319728.32	0.0017	412.57	648.69	1.5	ANNUAL	ALL	5
506651.98	4319728.54	0.00163	412.91	648.69	1.5	ANNUAL	ALL	5
506632.57	4319728.75	0.00156	413.07	648.69	1.5	ANNUAL	ALL	5
506613.16	4319728.97	0.00149	413.22	648.69	1.5	ANNUAL	ALL	5
506593.75	4319729.18	0.00141	413.33	648.69	1.5	ANNUAL	ALL	5
506574.34	4319729.4	0.00134	413.35	648.69	1.5	ANNUAL	ALL	5
506554.93	4319729.62	0.00126	413.26	648.69	1.5	ANNUAL	ALL	5
506535.52	4319729.83	0.00118	413.83	648.69	1.5	ANNUAL	ALL	5
506516.11	4319730.05	0.0011	414.05	648.69	1.5	ANNUAL	ALL	5
506496.7	4319730.26	0.00102	414.08	648.69	1.5	ANNUAL	ALL	5
506477.29	4319730.48	0.00095	414.2	648.69	1.5	ANNUAL	ALL	5
506709.38	4319652.89	0.00127	413.77	648.69	1.5	ANNUAL	ALL	5
506689.97	4319653.11	0.00124	414.5	648.69	1.5	ANNUAL	ALL	5
506670.56	4319653.32	0.00119	415.36	648.69	1.5	ANNUAL	ALL	5
506651.15	4319653.54	0.00115	416.15	648.69	1.5	ANNUAL	ALL	5
506631.74	4319653.76	0.00111	416.08	648.69	1.5	ANNUAL	ALL	5
506612.33	4319653.97	0.00106	415.34	648.69	1.5	ANNUAL	ALL	5
506592.92	4319654.19	0.00102	414.4	648.69	1.5	ANNUAL	ALL	5
506573.51	4319654.4	0.00097	413.73	648.69	1.5	ANNUAL	ALL	5
506554.1	4319654.62	0.00092	413.58	648.69	1.5	ANNUAL	ALL	5
506534.69	4319654.84	0.00088	414.03	648.69	1.5	ANNUAL	ALL	5
506515.28	4319655.05	0.00083	414.6	648.69	1.5	ANNUAL	ALL	5
506495.87	4319655.27	0.00079	414.84	648.69	1.5	ANNUAL	ALL	5
506476.46	4319655.48	0.00074	414.63	648.69	1.5	ANNUAL	ALL	5
506708.55	4319577.9	0.00085	429.41	648.69	1.5	ANNUAL	ALL	5
506689.14	4319578.11	0.00081	431.33	648.69	1.5	ANNUAL	ALL	5
506669.73	4319578.33	0.00078	430.78	648.69	1.5	ANNUAL	ALL	5
506650.32	4319578.55	0.00079	426.07	648.69	1.5	ANNUAL	ALL	5
506630.91	4319578.76	0.00078	422.68	648.69	1.5	ANNUAL	ALL	5
506611.5	4319578.98	0.00078	420.37	648.69	1.5	ANNUAL	ALL	5

506592.09	4319579.19	0.00076	418.39	648.69	1.5	ANNUAL	ALL	5
506572.68	4319579.41	0.00073	416.44	648.69	1.5	ANNUAL	ALL	5
506553.27	4319579.62	0.00071	415.22	648.69	1.5	ANNUAL	ALL	5
506533.86	4319579.84	0.00068	415.3	648.69	1.5	ANNUAL	ALL	5
506514.45	4319580.06	0.00065	416.28	648.69	1.5	ANNUAL	ALL	5
506495.04	4319580.27	0.00062	417.59	648.69	1.5	ANNUAL	ALL	5
506475.63	4319580.49	0.00059	418.51	648.69	1.5	ANNUAL	ALL	5
506462.36	4320012	0.00228	423.29	648.69	1.5	ANNUAL	ALL	5
506426.41	4320012.58	0.00157	423.56	648.69	1.5	ANNUAL	ALL	5
506390.47	4320013.15	0.0012	423.51	648.69	1.5	ANNUAL	ALL	5
506462.06	4319993.25	0.00217	422.23	648.69	1.5	ANNUAL	ALL	5
506426.11	4319993.83	0.00147	422.7	648.69	1.5	ANNUAL	ALL	5
506390.17	4319994.41	0.0011	422.64	648.69	1.5	ANNUAL	ALL	5
506461.76	4319974.51	0.00201	421.5	648.69	1.5	ANNUAL	ALL	5
506425.81	4319975.08	0.0014	421.96	648.69	1.5	ANNUAL	ALL	5
506389.87	4319975.66	0.00105	421.59	648.69	1.5	ANNUAL	ALL	5
506461.46	4319955.76	0.00187	420.82	648.69	1.5	ANNUAL	ALL	5
506443.48	4319956.05	0.00158	420.66	648.69	1.5	ANNUAL	ALL	5
506407.54	4319956.62	0.00115	420.14	648.69	1.5	ANNUAL	ALL	5
506371.6	4319957.2	0.00089	419.38	648.69	1.5	ANNUAL	ALL	5
506461.15	4319937.01	0.00175	420.1	648.69	1.5	ANNUAL	ALL	5
506425.21	4319937.59	0.00129	418.55	648.69	1.5	ANNUAL	ALL	5
506389.27	4319938.16	0.00097	417.87	648.69	1.5	ANNUAL	ALL	5
506371.3	4319938.45	0.00085	417.56	648.69	1.5	ANNUAL	ALL	5
506460.85	4319918.26	0.00165	418.94	648.69	1.5	ANNUAL	ALL	5
506424.91	4319918.84	0.00123	417.43	648.69	1.5	ANNUAL	ALL	5
506388.97	4319919.42	0.00092	416.96	648.69	1.5	ANNUAL	ALL	5
506460.55	4319899.52	0.00155	417.78	648.69	1.5	ANNUAL	ALL	5
506424.61	4319900.09	0.00116	416.39	648.69	1.5	ANNUAL	ALL	5
506406.64	4319900.38	0.001	416.22	648.69	1.5	ANNUAL	ALL	5
506370.69	4319900.96	0.00076	416.77	648.69	1.5	ANNUAL	ALL	5
506460.25	4319880.77	0.00145	416.66	648.69	1.5	ANNUAL	ALL	5
506424.31	4319881.34	0.00109	415.5	648.69	1.5	ANNUAL	ALL	5
506388.37	4319881.92	0.00083	416.37	648.69	1.5	ANNUAL	ALL	5
506459.65	4319843.27	0.00126	415.04	648.69	1.5	ANNUAL	ALL	5
506423.71	4319843.85	0.00098	415.85	648.69	1.5	ANNUAL	ALL	5
506387.76	4319844.43	0.00076	416.27	648.69	1.5	ANNUAL	ALL	5
506459.05	4319805.78	0.00111	415.11	648.69	1.5	ANNUAL	ALL	5
506441.08	4319806.07	0.001	415.31	648.69	1.5	ANNUAL	ALL	5
506405.13	4319806.64	0.00079	415.75	648.69	1.5	ANNUAL	ALL	5
506369.19	4319807.22	0.00062	416.33	648.69	1.5	ANNUAL	ALL	5
506458.45	4319768.28	0.00098	414.77	648.69	1.5	ANNUAL	ALL	5
506422.5	4319768.86	0.00081	415.1	648.69	1.5	ANNUAL	ALL	5
506386.56	4319769.44	0.00065	415.71	648.69	1.5	ANNUAL	ALL	5
506457.85	4319730.79	0.00087	414.13	648.69	1.5	ANNUAL	ALL	5
506421.9	4319731.36	0.00073	414.84	648.69	1.5	ANNUAL	ALL	5
506385.96	4319731.94	0.00061	416.51	648.69	1.5	ANNUAL	ALL	5
506456.64	4319655.8	0.00069	414.6	648.69	1.5	ANNUAL	ALL	5
506438.67	4319656.08	0.00065	414.83	648.69	1.5	ANNUAL	ALL	5
506402.73	4319656.66	0.00056	415.92	648.69	1.5	ANNUAL	ALL	5
506366.78	4319657.24	0.00048	417.46	648.69	1.5	ANNUAL	ALL	5
506455.44	4319580.81	0.00056	418.18	648.69	1.5	ANNUAL	ALL	5
506419.5	4319581.38	0.00051	416.91	648.69	1.5	ANNUAL	ALL	5
506383.55	4319581.96	0.00045	417.14	648.69	1.5	ANNUAL	ALL	5
506339.84	4320036.71	0.001	423.71	648.69	1.5	ANNUAL	ALL	5
506340.14	4320021.59	0.00094	422.79	648.69	1.5	ANNUAL	ALL	5
506358.5	4320000.97	0.00095	421.95	648.69	1.5	ANNUAL	ALL	5
506337.21	4320053.17	0.00106	424.38	648.69	1.5	ANNUAL	ALL	5
506321.48	4320023.45	0.00087	421.79	648.69	1.5	ANNUAL	ALL	5
506344.49	4319988.5	0.00085	420.6	648.69	1.5	ANNUAL	ALL	5
506318.55	4320055.04	0.00098	422.88	648.69	1.5	ANNUAL	ALL	5
506302.83	4320025.32	0.00081	420.6	648.69	1.5	ANNUAL	ALL	5
506312.13	4319996.65	0.00075	419.37	648.69	1.5	ANNUAL	ALL	5
506330.49	4319976.03	0.00076	419.02	648.69	1.5	ANNUAL	ALL	5
506299.9	4320056.9	0.00091	421.61	648.69	1.5	ANNUAL	ALL	5
506284.17	4320027.18	0.00075	419.66	648.69	1.5	ANNUAL	ALL	5
506293.48	4319998.51	0.0007	418.75	648.69	1.5	ANNUAL	ALL	5
506316.49	4319963.56	0.00068	417.68	648.69	1.5	ANNUAL	ALL	5
506343.89	4319951.01	0.00075	417.77	648.69	1.5	ANNUAL	ALL	5
506281.24	4320058.77	0.00084	420.75	648.69	1.5	ANNUAL	ALL	5
506265.51	4320029.05	0.00069	419.36	648.69	1.5	ANNUAL	ALL	5
506274.82	4320000.38	0.00065	418.52	648.69	1.5	ANNUAL	ALL	5
506284.13	4319971.71	0.0006	418.01	648.69	1.5	ANNUAL	ALL	5
506302.49	4319951.1	0.0006	417.58	648.69	1.5	ANNUAL	ALL	5
506329.89	4319938.54	0.00066	416.68	648.69	1.5	ANNUAL	ALL	5
506357.29	4319925.98	0.00075	417.2	648.69	1.5	ANNUAL	ALL	5
506262.58	4320060.63	0.00077	420.17	648.69	1.5	ANNUAL	ALL	5
506246.86	4320030.91	0.00064	419.28	648.69	1.5	ANNUAL	ALL	5
506256.16	4320002.24	0.0006	418.63	648.69	1.5	ANNUAL	ALL	5
506265.47	4319973.57	0.00056	418.14	648.69	1.5	ANNUAL	ALL	5
506288.48	4319938.63	0.00054	417.9	648.69	1.5	ANNUAL	ALL	5
506315.89	4319926.07	0.00059	417.34	648.69	1.5	ANNUAL	ALL	5
506343.29	4319913.51	0.00066	417.17	648.69	1.5	ANNUAL	ALL	5
506243.93	4320062.5	0.00071	420.36	648.69	1.5	ANNUAL	ALL	5

506234.18	4320014.35	0.00057	418.99	648.69	1.5	ANNUAL	ALL	5
506244.82	4319981.58	0.00053	418.48	648.69	1.5	ANNUAL	ALL	5
506255.46	4319948.82	0.00049	418.36	648.69	1.5	ANNUAL	ALL	5
506292.1	4319918.08	0.00051	417.84	648.69	1.5	ANNUAL	ALL	5
506323.42	4319903.73	0.00057	417.52	648.69	1.5	ANNUAL	ALL	5
506354.73	4319889.38	0.00066	417.07	648.69	1.5	ANNUAL	ALL	5
506223.54	4320047.12	0.00061	419.63	648.69	1.5	ANNUAL	ALL	5
506226.99	4320081.62	0.00069	421.12	648.69	1.5	ANNUAL	ALL	5
506191.4	4320034.92	0.00051	419.62	648.69	1.5	ANNUAL	ALL	5
506201.74	4320003.06	0.00048	419.31	648.69	1.5	ANNUAL	ALL	5
506212.09	4319971.21	0.00045	418.72	648.69	1.5	ANNUAL	ALL	5
506222.43	4319939.35	0.00041	418.64	648.69	1.5	ANNUAL	ALL	5
506248	4319900.52	0.0004	418.19	648.69	1.5	ANNUAL	ALL	5
506278.45	4319886.57	0.00043	417.75	648.69	1.5	ANNUAL	ALL	5
506308.89	4319872.62	0.00048	417.38	648.69	1.5	ANNUAL	ALL	5
506339.34	4319858.67	0.00056	417.1	648.69	1.5	ANNUAL	ALL	5
506187.96	4320068.1	0.00055	420.24	648.69	1.5	ANNUAL	ALL	5
506153.99	4320038.94	0.00044	419.79	648.69	1.5	ANNUAL	ALL	5
506164.15	4320007.66	0.00042	419.69	648.69	1.5	ANNUAL	ALL	5
506174.3	4319976.39	0.00039	419.54	648.69	1.5	ANNUAL	ALL	5
506184.46	4319945.11	0.00037	419.18	648.69	1.5	ANNUAL	ALL	5
506194.61	4319913.83	0.00034	419.36	648.69	1.5	ANNUAL	ALL	5
506219.72	4319875.71	0.00033	418.64	648.69	1.5	ANNUAL	ALL	5
506249.61	4319862.01	0.00036	418.05	648.69	1.5	ANNUAL	ALL	5
506279.51	4319848.31	0.00039	417.82	648.69	1.5	ANNUAL	ALL	5
506309.4	4319834.61	0.00045	417.33	648.69	1.5	ANNUAL	ALL	5
506339.3	4319820.92	0.00053	416.71	648.69	1.5	ANNUAL	ALL	5
506150.64	4320071.83	0.00048	420.17	648.69	1.5	ANNUAL	ALL	5
506116.61	4320042.87	0.00038	420.74	648.69	1.5	ANNUAL	ALL	5
506126.64	4320012	0.00037	420.42	648.69	1.5	ANNUAL	ALL	5
506136.66	4319981.12	0.00035	420.2	648.69	1.5	ANNUAL	ALL	5
506146.69	4319950.24	0.00033	420.18	648.69	1.5	ANNUAL	ALL	5
506156.71	4319919.37	0.00031	420.16	648.69	1.5	ANNUAL	ALL	5
506166.74	4319888.49	0.00029	419.93	648.69	1.5	ANNUAL	ALL	5
506191.52	4319850.86	0.00028	419.41	648.69	1.5	ANNUAL	ALL	5
506221.03	4319837.33	0.0003	418.88	648.69	1.5	ANNUAL	ALL	5
506250.54	4319823.81	0.00032	419.16	648.69	1.5	ANNUAL	ALL	5
506280.05	4319810.29	0.00036	418.95	648.69	1.5	ANNUAL	ALL	5
506309.57	4319796.77	0.00042	418.13	648.69	1.5	ANNUAL	ALL	5
506339.08	4319783.25	0.0005	417.28	648.69	1.5	ANNUAL	ALL	5
506113.33	4320075.56	0.00041	420.9	648.69	1.5	ANNUAL	ALL	5
506079.61	4320045.66	0.00034	421.34	648.69	1.5	ANNUAL	ALL	5
506090.25	4320012.89	0.00032	421.24	648.69	1.5	ANNUAL	ALL	5
506100.88	4319980.13	0.00031	420.91	648.69	1.5	ANNUAL	ALL	5
506111.52	4319947.36	0.00029	421.04	648.69	1.5	ANNUAL	ALL	5
506122.16	4319914.59	0.00027	421.74	648.69	1.5	ANNUAL	ALL	5
506132.8	4319881.83	0.00025	421.21	648.69	1.5	ANNUAL	ALL	5
506143.44	4319849.06	0.00024	420.57	648.69	1.5	ANNUAL	ALL	5
506164.42	4319825.5	0.00024	420.67	648.69	1.5	ANNUAL	ALL	5
506195.73	4319811.15	0.00025	419.84	648.69	1.5	ANNUAL	ALL	5
506227.05	4319796.8	0.00027	420.51	648.69	1.5	ANNUAL	ALL	5
506258.37	4319782.45	0.0003	421.19	648.69	1.5	ANNUAL	ALL	5
506289.69	4319768.1	0.00035	420.94	648.69	1.5	ANNUAL	ALL	5
506321.01	4319753.75	0.00042	419.57	648.69	1.5	ANNUAL	ALL	5
506352.33	4319739.4	0.0005	418.71	648.69	1.5	ANNUAL	ALL	5
506076.01	4320079.29	0.00036	421.14	648.69	1.5	ANNUAL	ALL	5
506004.83	4320053.58	0.00027	422.25	648.69	1.5	ANNUAL	ALL	5
506015.18	4320021.72	0.00025	422.5	648.69	1.5	ANNUAL	ALL	5
506025.52	4319989.86	0.00024	423.75	648.69	1.5	ANNUAL	ALL	5
506035.86	4319958.01	0.00023	424.16	648.69	1.5	ANNUAL	ALL	5
506046.2	4319926.15	0.00022	422.95	648.69	1.5	ANNUAL	ALL	5
506056.55	4319894.3	0.00021	423.07	648.69	1.5	ANNUAL	ALL	5
506066.89	4319862.44	0.0002	424.23	648.69	1.5	ANNUAL	ALL	5
506077.23	4319830.59	0.00019	423.95	648.69	1.5	ANNUAL	ALL	5
506087.57	4319798.73	0.00018	424.2	648.69	1.5	ANNUAL	ALL	5
506107.97	4319775.83	0.00017	424.12	648.69	1.5	ANNUAL	ALL	5
506138.42	4319761.87	0.00018	422.99	648.69	1.5	ANNUAL	ALL	5
506168.87	4319747.92	0.00019	422.83	648.69	1.5	ANNUAL	ALL	5
506199.32	4319733.97	0.0002	425.54	648.69	1.5	ANNUAL	ALL	5
506229.77	4319720.02	0.00022	426.88	648.69	1.5	ANNUAL	ALL	5
506260.21	4319706.07	0.00027	424.36	648.69	1.5	ANNUAL	ALL	5
506290.66	4319692.12	0.00033	421.9	648.69	1.5	ANNUAL	ALL	5
506321.11	4319678.17	0.00039	420.36	648.69	1.5	ANNUAL	ALL	5
506001.39	4320086.75	0.00028	422.72	648.69	1.5	ANNUAL	ALL	5
505930.35	4320060.58	0.00022	423.95	648.69	1.5	ANNUAL	ALL	5
505940.99	4320027.82	0.00021	423.77	648.69	1.5	ANNUAL	ALL	5
505951.63	4319995.05	0.0002	423.87	648.69	1.5	ANNUAL	ALL	5
505962.27	4319962.29	0.00019	425.52	648.69	1.5	ANNUAL	ALL	5
505972.91	4319929.52	0.00018	424.93	648.69	1.5	ANNUAL	ALL	5
505983.54	4319896.75	0.00018	424.47	648.69	1.5	ANNUAL	ALL	5
505994.18	4319863.99	0.00017	425.38	648.69	1.5	ANNUAL	ALL	5
506004.82	4319831.22	0.00016	426.88	648.69	1.5	ANNUAL	ALL	5
506015.46	4319798.46	0.00015	427.78	648.69	1.5	ANNUAL	ALL	5
506026.1	4319765.69	0.00014	428.83	648.69	1.5	ANNUAL	ALL	5

506052.39	4319725.75	0.00013	429.84	648.69	1.5	ANNUAL	ALL	5
506083.71	4319711.4	0.00013	429.18	648.69	1.5	ANNUAL	ALL	5
506115.03	4319697.05	0.00014	426.26	648.69	1.5	ANNUAL	ALL	5
506146.35	4319682.7	0.00015	425.21	648.69	1.5	ANNUAL	ALL	5
506177.67	4319668.35	0.00017	428.25	648.69	1.5	ANNUAL	ALL	5
506208.99	4319654	0.00019	427.47	648.69	1.5	ANNUAL	ALL	5
506240.31	4319639.65	0.00024	424.32	648.69	1.5	ANNUAL	ALL	5
506271.63	4319625.3	0.00028	422.52	648.69	1.5	ANNUAL	ALL	5
506302.94	4319610.95	0.00033	420.73	648.69	1.5	ANNUAL	ALL	5
506334.26	4319596.6	0.00038	418.2	648.69	1.5	ANNUAL	ALL	5
505926.76	4320094.22	0.00023	425.25	648.69	1.5	ANNUAL	ALL	5
506339.08	4320071.65	0.00117	425.14	648.69	1.5	ANNUAL	ALL	5
506341.67	4320091.06	0.0013	425.96	648.69	1.5	ANNUAL	ALL	5
506344.26	4320110.47	0.00144	427.01	648.69	1.5	ANNUAL	ALL	5
506320.49	4320074.13	0.00108	423.68	648.69	1.5	ANNUAL	ALL	5
506323.08	4320093.54	0.00119	424.52	648.69	1.5	ANNUAL	ALL	5
506325.67	4320112.95	0.00131	425.34	648.69	1.5	ANNUAL	ALL	5
506301.91	4320076.61	0.001	422.37	648.69	1.5	ANNUAL	ALL	5
506304.5	4320096.02	0.00109	423.12	648.69	1.5	ANNUAL	ALL	5
506307.09	4320115.43	0.00119	423.79	648.69	1.5	ANNUAL	ALL	5
506283.32	4320079.09	0.00092	421.47	648.69	1.5	ANNUAL	ALL	5
506285.91	4320098.5	0.001	422.12	648.69	1.5	ANNUAL	ALL	5
506288.5	4320117.91	0.00108	422.67	648.69	1.5	ANNUAL	ALL	5
506264.74	4320081.57	0.00084	420.86	648.69	1.5	ANNUAL	ALL	5
506267.33	4320100.98	0.00091	421.55	648.69	1.5	ANNUAL	ALL	5
506269.92	4320120.39	0.00099	422.22	648.69	1.5	ANNUAL	ALL	5
506246.15	4320084.05	0.00077	421.08	648.69	1.5	ANNUAL	ALL	5
506248.74	4320103.46	0.00083	421.8	648.69	1.5	ANNUAL	ALL	5
506251.33	4320122.87	0.00088	422.53	648.69	1.5	ANNUAL	ALL	5
506230.16	4320105.94	0.00075	422.24	648.69	1.5	ANNUAL	ALL	5
506232.75	4320125.35	0.00079	423.18	648.69	1.5	ANNUAL	ALL	5
506190.4	4320091.49	0.0006	421.37	648.69	1.5	ANNUAL	ALL	5
506192.99	4320110.9	0.00063	422.36	648.69	1.5	ANNUAL	ALL	5
506195.58	4320130.31	0.00066	423.46	648.69	1.5	ANNUAL	ALL	5
506153.23	4320096.45	0.00051	421.24	648.69	1.5	ANNUAL	ALL	5
506155.82	4320115.86	0.00054	422.04	648.69	1.5	ANNUAL	ALL	5
506158.41	4320135.27	0.00056	422.9	648.69	1.5	ANNUAL	ALL	5
506116.06	4320101.41	0.00044	421.39	648.69	1.5	ANNUAL	ALL	5
506118.65	4320120.82	0.00046	421.93	648.69	1.5	ANNUAL	ALL	5
506121.24	4320140.23	0.00048	422.76	648.69	1.5	ANNUAL	ALL	5
506078.89	4320106.37	0.00039	421.62	648.69	1.5	ANNUAL	ALL	5
506081.48	4320125.78	0.0004	422.33	648.69	1.5	ANNUAL	ALL	5
506084.07	4320145.19	0.00042	423.03	648.69	1.5	ANNUAL	ALL	5
506004.54	4320116.29	0.0003	423.4	648.69	1.5	ANNUAL	ALL	5
506007.13	4320135.7	0.00031	424.35	648.69	1.5	ANNUAL	ALL	5
506009.72	4320155.11	0.00032	425.37	648.69	1.5	ANNUAL	ALL	5
505930.2	4320126.21	0.00024	425.31	648.69	1.5	ANNUAL	ALL	5
505932.79	4320145.62	0.00025	426.64	648.69	1.5	ANNUAL	ALL	5
505935.38	4320165.03	0.00025	427.33	648.69	1.5	ANNUAL	ALL	5
506198.66	4320148.44	0.00069	424.61	648.69	1.5	ANNUAL	ALL	5
506161.76	4320155.13	0.00059	423.83	648.69	1.5	ANNUAL	ALL	5
506124.86	4320161.81	0.0005	423.89	648.69	1.5	ANNUAL	ALL	5
506087.96	4320168.5	0.00043	424.15	648.69	1.5	ANNUAL	ALL	5
506014.16	4320181.88	0.00033	425.61	648.69	1.5	ANNUAL	ALL	5
505938.64	4320185.76	0.00025	427.46	648.69	1.5	ANNUAL	ALL	5
506344.82	4320135.08	0.00162	427.59	648.69	1.5	ANNUAL	ALL	5
506326.08	4320134.33	0.00143	425.79	648.69	1.5	ANNUAL	ALL	5
506307.35	4320133.58	0.00128	424.14	648.69	1.5	ANNUAL	ALL	5
506287.95	4320140.61	0.00116	423.08	648.69	1.5	ANNUAL	ALL	5
506269.26	4320139.17	0.00103	422.81	648.69	1.5	ANNUAL	ALL	5
506345.96	4320154.73	0.00177	427.51	648.69	1.5	ANNUAL	ALL	5
506353.06	4320174.9	0.00205	426.9	648.69	1.5	ANNUAL	ALL	5
506329.19	4320163.11	0.00162	426.17	648.69	1.5	ANNUAL	ALL	5
506336.29	4320183.28	0.00184	426.28	648.69	1.5	ANNUAL	ALL	5
506312.42	4320171.49	0.00149	424.99	648.69	1.5	ANNUAL	ALL	5
506308.57	4320151.86	0.00137	424.42	648.69	1.5	ANNUAL	ALL	5
506319.52	4320191.66	0.00166	425.54	648.69	1.5	ANNUAL	ALL	5
506295.65	4320179.87	0.00136	424.38	648.69	1.5	ANNUAL	ALL	5
506291.8	4320160.24	0.00126	423.7	648.69	1.5	ANNUAL	ALL	5
506302.74	4320200.05	0.00149	425.22	648.69	1.5	ANNUAL	ALL	5
506278.87	4320188.26	0.00123	424.35	648.69	1.5	ANNUAL	ALL	5
506275.03	4320168.62	0.00115	423.75	648.69	1.5	ANNUAL	ALL	5
506285.97	4320208.43	0.00135	425.07	648.69	1.5	ANNUAL	ALL	5
506262.1	4320196.64	0.00111	424.97	648.69	1.5	ANNUAL	ALL	5
506258.26	4320177.01	0.00104	424.39	648.69	1.5	ANNUAL	ALL	5
506254.41	4320157.37	0.00098	423.71	648.69	1.5	ANNUAL	ALL	5
506269.2	4320216.81	0.00121	425.66	648.69	1.5	ANNUAL	ALL	5
506245.06	4320203.62	0.00099	426.83	648.69	1.5	ANNUAL	ALL	5
506240.66	4320181.18	0.00093	425.76	648.69	1.5	ANNUAL	ALL	5
506236.26	4320158.74	0.00087	424.49	648.69	1.5	ANNUAL	ALL	5
506252.43	4320225.19	0.00109	426.93	648.69	1.5	ANNUAL	ALL	5
506211.57	4320220.69	0.00082	428.51	648.69	1.5	ANNUAL	ALL	5
506207.3	4320198.88	0.00077	428.06	648.69	1.5	ANNUAL	ALL	5
506203.03	4320177.07	0.00073	426.92	648.69	1.5	ANNUAL	ALL	5

506218.88	4320241.96	0.0009	428.34	648.69	1.5	ANNUAL	ALL	5
506178.07	4320237.66	0.00071	427.09	648.69	1.5	ANNUAL	ALL	5
506173.87	4320216.24	0.00068	426.2	648.69	1.5	ANNUAL	ALL	5
506169.68	4320194.82	0.00065	425.28	648.69	1.5	ANNUAL	ALL	5
506165.48	4320173.4	0.00062	424.43	648.69	1.5	ANNUAL	ALL	5
506185.34	4320258.72	0.00077	428.2	648.69	1.5	ANNUAL	ALL	5
506144.55	4320254.56	0.00062	427.51	648.69	1.5	ANNUAL	ALL	5
506140.41	4320233.41	0.00058	427.23	648.69	1.5	ANNUAL	ALL	5
506136.27	4320212.27	0.00055	426.66	648.69	1.5	ANNUAL	ALL	5
506132.12	4320191.13	0.00053	425.65	648.69	1.5	ANNUAL	ALL	5
506151.8	4320275.48	0.00066	428.15	648.69	1.5	ANNUAL	ALL	5
506110.88	4320270.67	0.00054	427.89	648.69	1.5	ANNUAL	ALL	5
506106.48	4320248.24	0.0005	428.89	648.69	1.5	ANNUAL	ALL	5
506102.09	4320225.8	0.00048	427.76	648.69	1.5	ANNUAL	ALL	5
506097.69	4320203.36	0.00046	426.38	648.69	1.5	ANNUAL	ALL	5
506118.25	4320292.25	0.00059	426.54	648.69	1.5	ANNUAL	ALL	5
506043.85	4320304.51	0.00043	427.6	648.69	1.5	ANNUAL	ALL	5
506039.58	4320282.7	0.0004	429.19	648.69	1.5	ANNUAL	ALL	5
506035.3	4320260.89	0.00037	429	648.69	1.5	ANNUAL	ALL	5
506031.03	4320239.07	0.00036	428.06	648.69	1.5	ANNUAL	ALL	5
506026.76	4320217.26	0.00035	426.61	648.69	1.5	ANNUAL	ALL	5
506051.16	4320325.78	0.00047	425.35	648.69	1.5	ANNUAL	ALL	5
505976.7	4320337.73	0.00036	422.9	648.69	1.5	ANNUAL	ALL	5
505972.31	4320315.29	0.00034	423.44	648.69	1.5	ANNUAL	ALL	5
505967.91	4320292.86	0.00032	423.75	648.69	1.5	ANNUAL	ALL	5
505963.52	4320270.42	0.00031	424.11	648.69	1.5	ANNUAL	ALL	5
505959.12	4320247.98	0.00029	424.65	648.69	1.5	ANNUAL	ALL	5
505954.72	4320225.54	0.00027	426.86	648.69	1.5	ANNUAL	ALL	5
505950.33	4320203.11	0.00027	427.57	648.69	1.5	ANNUAL	ALL	5
505984.07	4320359.3	0.00038	422.38	648.69	1.5	ANNUAL	ALL	5
506348.76	4320208.51	0.00227	424.93	648.69	1.5	ANNUAL	ALL	5
506363.71	4320238.99	0.00289	424.4	648.69	1.5	ANNUAL	ALL	5
506331.92	4320216.76	0.002	425.08	648.69	1.5	ANNUAL	ALL	5
506346.88	4320247.24	0.00251	424.2	648.69	1.5	ANNUAL	ALL	5
506315.09	4320225.02	0.00176	425.46	648.69	1.5	ANNUAL	ALL	5
506330.04	4320255.5	0.00217	425.03	648.69	1.5	ANNUAL	ALL	5
506298.26	4320233.28	0.00157	425.48	648.69	1.5	ANNUAL	ALL	5
506313.21	4320263.76	0.0019	425.96	648.69	1.5	ANNUAL	ALL	5
506281.42	4320241.54	0.00141	425.88	648.69	1.5	ANNUAL	ALL	5
506296.38	4320272.02	0.00167	426.85	648.69	1.5	ANNUAL	ALL	5
506264.59	4320249.8	0.00126	426.66	648.69	1.5	ANNUAL	ALL	5
506279.54	4320280.28	0.00148	427.54	648.69	1.5	ANNUAL	ALL	5
506230.92	4320266.31	0.00103	428.02	648.69	1.5	ANNUAL	ALL	5
506197.26	4320282.83	0.00086	428.83	648.69	1.5	ANNUAL	ALL	5
506212.21	4320313.31	0.00098	429.45	648.69	1.5	ANNUAL	ALL	5
506163.59	4320299.35	0.00075	427.5	648.69	1.5	ANNUAL	ALL	5
506178.54	4320329.83	0.00084	428.05	648.69	1.5	ANNUAL	ALL	5
506129.92	4320315.86	0.00066	425.29	648.69	1.5	ANNUAL	ALL	5
506144.88	4320346.34	0.00074	425.36	648.69	1.5	ANNUAL	ALL	5
506062.59	4320348.9	0.00051	423.37	648.69	1.5	ANNUAL	ALL	5
506077.54	4320379.38	0.00057	422.06	648.69	1.5	ANNUAL	ALL	5
505995.26	4320381.93	0.00041	421.83	648.69	1.5	ANNUAL	ALL	5
506010.21	4320412.41	0.00044	423.68	648.69	1.5	ANNUAL	ALL	5
506357.39	4320269.94	0.00285	425.73	648.69	1.5	ANNUAL	ALL	5
506340.38	4320277.83	0.00244	426.48	648.69	1.5	ANNUAL	ALL	5
506221.33	4320333.09	0.00105	430.84	648.69	1.5	ANNUAL	ALL	5
506187.32	4320348.88	0.00089	429.96	648.69	1.5	ANNUAL	ALL	5
506153.31	4320364.67	0.00077	427.11	648.69	1.5	ANNUAL	ALL	5
506085.28	4320396.25	0.0006	421.55	648.69	1.5	ANNUAL	ALL	5
506229.53	4320397.56	0.00116	430.48	648.69	1.5	ANNUAL	ALL	5
506208.43	4320373.22	0.001	431.08	648.69	1.5	ANNUAL	ALL	5
506309.38	4320504.39	0.00195	427.01	648.69	1.5	ANNUAL	ALL	5
506277.69	4320494.69	0.00165	427.22	648.69	1.5	ANNUAL	ALL	5
506250.99	4320477.33	0.00141	427.94	648.69	1.5	ANNUAL	ALL	5
506229.29	4320452.29	0.00126	425.86	648.69	1.5	ANNUAL	ALL	5
506207.58	4320427.26	0.00111	424.29	648.69	1.5	ANNUAL	ALL	5
506185.87	4320402.22	0.00094	427.11	648.69	1.5	ANNUAL	ALL	5
506210.52	4320540.68	0.00122	419.47	648.69	1.5	ANNUAL	ALL	5
506189.65	4320516.61	0.0011	419.93	648.69	1.5	ANNUAL	ALL	5
506168.77	4320492.54	0.00098	420.13	648.69	1.5	ANNUAL	ALL	5
506147.9	4320468.46	0.00087	419.79	648.69	1.5	ANNUAL	ALL	5
506127.02	4320444.39	0.00077	419.63	648.69	1.5	ANNUAL	ALL	5
506106.15	4320420.32	0.00068	420.23	648.69	1.5	ANNUAL	ALL	5
506147.5	4320578.03	0.0009	417.18	648.69	1.5	ANNUAL	ALL	5
506125.79	4320553	0.00081	419.54	648.69	1.5	ANNUAL	ALL	5
506104.08	4320527.96	0.00072	419.76	648.69	1.5	ANNUAL	ALL	5
506082.37	4320502.93	0.00065	420.01	648.69	1.5	ANNUAL	ALL	5
506060.67	4320477.89	0.00057	421.27	648.69	1.5	ANNUAL	ALL	5
506038.96	4320452.86	0.00051	423.55	648.69	1.5	ANNUAL	ALL	5

** CONCUNIT ug/ m^3
** DEPUNIT g/m^ 2

Health Risk Assessment

Construction Health Risk Assessment

Phase 2 – Mitigated

Emissions and Concentrations

Lakeport Shopping Center Project

Phase 2

Estimation of Annual Onsite Construction Emissions

Start of Construction	1/1/2023	
End of Construction	10/2/2023	**Total**
Number of Days	274	274
Number of Hours	6,576	6,576
Number of Years	0.75	0.75
Size of the construction area source:	**15,626.9**	**sq-meters**

CalEEMod Run	Year	On-site Construction Activity	Tier 4 Mitigated On-site DPM (tons)
Phase 2	2023	On-site Site Preparation	0.00016
Phase 2	2023	On-site Grading	0.00019
Phase 2	2023	On-site Paving	0.00046
Phase 2	2023	On-site Building Construction	0.01080
Phase 2	2023	On-site Architectural Coating	0.00004

Total Unmitigated DPM (On-site) 1.165E-02 tons

Average Emission*	1.058E+04	
	4.468E-04	grams/sec
	2.859E-08	grams/m2/sec

*Size of the construction area source accounted for in AERMOD.

Lakeport Shopping Center Project

Phase 2

Estimation of Annual Offsite Construction DPM Emissions (Unmitigated - No Change in Mitigated Construction Scenario)

Start of Construction	1/1/2023		
End of Construction	10/2/2023	**Total**	
Number of Days	274	274	
Number of Hours	6,576	6576	

	Phase 2 (2023)	Phase 2 (2023)	Phase 2 (2023)	Phase 2 (2023)	Phase 2 (2023)
Construction Trip Type	Site Preparation	Grading	Paving	Building Construction	Architectural Coating
Haul Truck	0.00001	0.00001	0.00001	0.00003	0.00000
Vendor Truck	0.00000	0.00000	0.00001	0.00112	0.00000
Worker	0.00000	0.00000	0.00001	0.00046	0.00001
Total	0.00001	0.00001	0.00003	0.00161	0.00001

	Haul Truck (tons)	**Vendor Truck (tons)**	**Worker (tons)**	**Total (tons)**
Total DPM	6.000E-05	1.130E-03	4.800E-04	1.670E-03

Average Emissions			
Grams	5.448E+01	1.026E+03	4.358E+02
Grams/sec	2.301E-06	4.334E-05	1.841E-05
Default Distance*	20	7.3	10.8

*Default Vehicle Travel Distance in CalEEMod

Vehicle Travel Distances in the Construction HRA (miles)			
Road Segment 1 (mi)	0.43	0.43	0.43
Road Segment 2 (mi)	0.45	0.45	0.45
Road Segment 3 (mi)	0.53	0.53	0.53
Road Segment 4 (mi)	0.54	0.54	0.54

Trip Distribution (percent)			
Road Segment 1	25.0%	25.0%	25.0%
Road Segment 2	25.0%	25.0%	25.0%
Road Segment 3	25.0%	25.0%	25.0%
Road Segment 4	25.0%	25.0%	25.0%

Total Average Offsite Vehicle Emissions Along Travel Distance (g/sec)				**Total**
Road Segment 1	1.223E-08	6.313E-07	1.812E-07	8.247E-07
Road Segment 2	1.286E-08	6.635E-07	1.905E-07	8.668E-07
Road Segment 3	1.530E-08	7.895E-07	2.267E-07	1.031E-06
Road Segment 4	1.554E-08	8.017E-07	2.302E-07	1.047E-06

Maximum DPM (ug/m3)	UTM X	UTM Y
3.4160E-02	506480.42	4320011.71

* AERMOD (19191): G:\LSC_HRA\P2 Mitigated\P2Mitigated.isc 10/11/2021
* AERMET (14134): 11:07:22 AM
* MODELING OPTIONS USED: Reg DFAULT CONCELEV FLGPOL URBAN
* PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 652 RECEPTORS.
* FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

* X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM YRS	NET ID
506703.91	4320437.76	0.00018	420.88	432.12	1.5	ANNUAL	ALL	5	
506676.87	4320495.35	0.00019	423.66	431.49	1.5	ANNUAL	ALL	5	
506701.34	4320484.15	0.00016	424.59	431.49	1.5	ANNUAL	ALL	5	
506724.35	4320469.2	0.00014	423.58	432.12	1.5	ANNUAL	ALL	5	
506717.54	4320558.3	0.0001	428.24	432.02	1.5	ANNUAL	ALL	5	
506691.19	4320565.86	0.00014	420.45	432.12	1.5	ANNUAL	ALL	5	
506742.21	4320547.04	0.00009	431.7	431.7	1.5	ANNUAL	ALL	5	
506765.22	4320532.08	0.00008	432.05	432.05	1.5	ANNUAL	ALL	5	
506718.35	4320369.19	0.0002	418.53	418.53	1.5	ANNUAL	ALL	5	
506747.68	4320355.39	0.00019	418.67	445.92	1.5	ANNUAL	ALL	5	
506704.99	4320416.93	0.00019	420.06	430.6	1.5	ANNUAL	ALL	5	
506734.32	4320403.12	0.00017	418.93	432.12	1.5	ANNUAL	ALL	5	
506763.65	4320389.32	0.00016	418.46	445.92	1.5	ANNUAL	ALL	5	
506720.96	4320450.86	0.00016	421.47	432.12	1.5	ANNUAL	ALL	5	
506750.29	4320437.05	0.00014	419.57	432.12	1.5	ANNUAL	ALL	5	
506779.62	4320423.25	0.00013	418.64	445.92	1.5	ANNUAL	ALL	5	
506721.34	4320488.78	0.00013	425.73	432.12	1.5	ANNUAL	ALL	5	
506751.59	4320477.88	0.00011	426.13	432.12	1.5	ANNUAL	ALL	5	
506768.87	4320552.65	0.00008	431.71	432.04	1.5	ANNUAL	ALL	5	
506757.91	4320246.35	0.00031	419.21	648.69	1.5	ANNUAL	ALL	5	
506776.07	4320220.81	0.00032	419.9	445.92	1.5	ANNUAL	ALL	5	
506774.97	4320254.45	0.00027	420.15	445.92	1.5	ANNUAL	ALL	5	
506754.47	4320274.47	0.00027	419.27	445.92	1.5	ANNUAL	ALL	5	
506755.14	4320298.58	0.00024	418.81	445.92	1.5	ANNUAL	ALL	5	
507069.29	4320032.11	0.00021	411.74	445.92	1.5	ANNUAL	ALL	5	
507144.29	4320032.11	0.00016	408.5	445.92	1.5	ANNUAL	ALL	5	
507136.82	4320049.44	0.00015	410.64	445.92	1.5	ANNUAL	ALL	5	
507129.35	4320066.77	0.00015	412.6	445.92	1.5	ANNUAL	ALL	5	
507121.88	4320084.11	0.00014	415.74	445.92	1.5	ANNUAL	ALL	5	
507114.41	4320101.44	0.00014	418.21	445.92	1.5	ANNUAL	ALL	5	
507106.94	4320118.77	0.00013	419.88	445.92	1.5	ANNUAL	ALL	5	
507099.47	4320136.11	0.00013	421.37	445.92	1.5	ANNUAL	ALL	5	
507092	4320153.44	0.00012	423.61	445.92	1.5	ANNUAL	ALL	5	
507084.53	4320170.77	0.00012	425.39	445.92	1.5	ANNUAL	ALL	5	
507077.06	4320188.11	0.00011	427.1	445.92	1.5	ANNUAL	ALL	5	
507069.59	4320205.44	0.00011	429.72	445.92	1.5	ANNUAL	ALL	5	
507219.29	4320032.11	0.00012	407.19	445.92	1.5	ANNUAL	ALL	5	
507211.82	4320049.45	0.00012	407.27	445.92	1.5	ANNUAL	ALL	5	
507204.34	4320066.79	0.00011	407.4	445.92	1.5	ANNUAL	ALL	5	
507196.87	4320084.13	0.00011	408.03	445.92	1.5	ANNUAL	ALL	5	
507189.39	4320101.47	0.00011	409.32	445.92	1.5	ANNUAL	ALL	5	
507181.92	4320118.82	0.00011	410.51	445.92	1.5	ANNUAL	ALL	5	
507174.45	4320136.16	0.0001	411.8	445.92	1.5	ANNUAL	ALL	5	
507166.97	4320153.5	0.0001	413.4	445.92	1.5	ANNUAL	ALL	5	
507159.5	4320170.84	0.0001	414.94	445.92	1.5	ANNUAL	ALL	5	
507152.02	4320188.18	0.00009	416.48	445.92	1.5	ANNUAL	ALL	5	
507144.55	4320205.52	0.00009	417.42	445.92	1.5	ANNUAL	ALL	5	
506837.97	4319876.1	0.00109	411.74	648.69	1.5	ANNUAL	ALL	5	
506712.12	4319999.57	0.00231	414.57	648.69	1.5	ANNUAL	ALL	5	
506715.28	4319990.41	0.00231	414.55	648.69	1.5	ANNUAL	ALL	5	
506716.15	4319971.68	0.0024	414.55	648.69	1.5	ANNUAL	ALL	5	
506717.01	4319952.95	0.00244	414.63	648.69	1.5	ANNUAL	ALL	5	
506717.88	4319934.22	0.00244	414.72	648.69	1.5	ANNUAL	ALL	5	
506718.74	4319915.49	0.0024	414.8	648.69	1.5	ANNUAL	ALL	5	
506790.5	4319906.09	0.00144	413.43	648.69	1.5	ANNUAL	ALL	5	
506756.99	4319898.49	0.00181	414.02	648.69	1.5	ANNUAL	ALL	5	
506738.3	4319897.62	0.00205	414.15	648.69	1.5	ANNUAL	ALL	5	
506719.61	4319896.76	0.00232	414.33	648.69	1.5	ANNUAL	ALL	5	
506810.41	4319896.04	0.00127	412.28	648.69	1.5	ANNUAL	ALL	5	
506776.55	4319880.62	0.00157	413.08	648.69	1.5	ANNUAL	ALL	5	
506757.86	4319879.76	0.00176	413.22	648.69	1.5	ANNUAL	ALL	5	
506739.16	4319878.89	0.00198	413.28	648.69	1.5	ANNUAL	ALL	5	
506720.47	4319878.03	0.00222	413.49	648.69	1.5	ANNUAL	ALL	5	
506794.15	4319850.39	0.00138	411.86	648.69	1.5	ANNUAL	ALL	5	
506825.89	4319864.84	0.00117	411.67	648.69	1.5	ANNUAL	ALL	5	
506759.59	4319842.3	0.00164	412.09	648.69	1.5	ANNUAL	ALL	5	
506740.89	4319841.43	0.0018	412.29	648.69	1.5	ANNUAL	ALL	5	
506722.2	4319840.57	0.00198	412.5	648.69	1.5	ANNUAL	ALL	5	
506796.94	4319813.41	0.00129	411.86	648.69	1.5	ANNUAL	ALL	5	

506813.87	4319821.12	0.0012	411.64	648.69	1.5	ANNUAL	ALL	5
506830.79	4319828.82	0.00112	411.39	648.69	1.5	ANNUAL	ALL	5
506847.72	4319836.53	0.00103	411.17	648.69	1.5	ANNUAL	ALL	5
506780.01	4319805.7	0.00137	411.9	648.69	1.5	ANNUAL	ALL	5
506761.32	4319804.84	0.00149	412.02	648.69	1.5	ANNUAL	ALL	5
506742.62	4319803.97	0.00162	412.19	648.69	1.5	ANNUAL	ALL	5
506723.93	4319803.11	0.00175	412.29	648.69	1.5	ANNUAL	ALL	5
506797.9	4319775.6	0.00119	411.56	648.69	1.5	ANNUAL	ALL	5
506830.21	4319790.31	0.00107	411.21	648.69	1.5	ANNUAL	ALL	5
506862.53	4319805.03	0.00094	410.87	648.69	1.5	ANNUAL	ALL	5
506966.08	4319865.66	0.00055	410.16	648.69	1.5	ANNUAL	ALL	5
506763.05	4319767.38	0.00133	411.79	648.69	1.5	ANNUAL	ALL	5
506744.35	4319766.51	0.00143	412.07	648.69	1.5	ANNUAL	ALL	5
506725.66	4319765.65	0.00152	412.15	648.69	1.5	ANNUAL	ALL	5
506800.4	4319738.49	0.00108	411.43	648.69	1.5	ANNUAL	ALL	5
506817.33	4319746.2	0.00103	411.12	648.69	1.5	ANNUAL	ALL	5
506834.25	4319753.9	0.00098	410.98	648.69	1.5	ANNUAL	ALL	5
506851.18	4319761.61	0.00093	410.81	648.69	1.5	ANNUAL	ALL	5
506868.11	4319769.32	0.00088	410.68	648.69	1.5	ANNUAL	ALL	5
506885.04	4319777.03	0.00083	410.6	648.69	1.5	ANNUAL	ALL	5
506993.52	4319840.54	0.0005	409.87	648.69	1.5	ANNUAL	ALL	5
507000.44	4319857.81	0.00048	409.74	648.69	1.5	ANNUAL	ALL	5
507007.36	4319875.07	0.00045	409.83	648.69	1.5	ANNUAL	ALL	5
507048.87	4319978.66	0.00027	410.72	648.69	1.5	ANNUAL	ALL	5
507055.79	4319995.93	0.00025	410.99	648.69	1.5	ANNUAL	ALL	5
507062.71	4320013.19	0.00023	411.2	445.92	1.5	ANNUAL	ALL	5
506783.47	4319730.78	0.00112	411.72	648.69	1.5	ANNUAL	ALL	5
506764.78	4319729.92	0.00119	411.86	648.69	1.5	ANNUAL	ALL	5
506746.08	4319729.05	0.00126	411.94	648.69	1.5	ANNUAL	ALL	5
506727.39	4319728.19	0.00133	412.1	648.69	1.5	ANNUAL	ALL	5
506803.86	4319663.57	0.00088	411.87	648.69	1.5	ANNUAL	ALL	5
506820.79	4319671.28	0.00085	411.31	648.69	1.5	ANNUAL	ALL	5
506837.71	4319678.98	0.00083	411.4	648.69	1.5	ANNUAL	ALL	5
506854.64	4319686.69	0.0008	411.42	648.69	1.5	ANNUAL	ALL	5
506871.57	4319694.4	0.00077	411.36	648.69	1.5	ANNUAL	ALL	5
506888.5	4319702.11	0.00074	411.07	648.69	1.5	ANNUAL	ALL	5
506905.42	4319709.82	0.00071	410.93	648.69	1.5	ANNUAL	ALL	5
506922.35	4319717.53	0.00068	410.76	648.69	1.5	ANNUAL	ALL	5
507006.99	4319756.07	0.00051	409.92	648.69	1.5	ANNUAL	ALL	5
507023.92	4319763.78	0.00047	409.47	648.69	1.5	ANNUAL	ALL	5
507047.76	4319788.75	0.00042	409.38	648.69	1.5	ANNUAL	ALL	5
507054.68	4319806.01	0.0004	409.45	648.69	1.5	ANNUAL	ALL	5
507061.6	4319823.28	0.00038	409.47	648.69	1.5	ANNUAL	ALL	5
507068.52	4319840.54	0.00036	409.38	648.69	1.5	ANNUAL	ALL	5
507075.44	4319857.81	0.00034	409.19	648.69	1.5	ANNUAL	ALL	5
507082.36	4319875.07	0.00032	408.85	648.69	1.5	ANNUAL	ALL	5
507089.28	4319892.34	0.0003	408.66	648.69	1.5	ANNUAL	ALL	5
507096.2	4319909.6	0.00028	408.51	648.69	1.5	ANNUAL	ALL	5
507103.12	4319926.87	0.00026	408.47	648.69	1.5	ANNUAL	ALL	5
507110.03	4319944.13	0.00024	408.5	648.69	1.5	ANNUAL	ALL	5
507116.95	4319961.4	0.00022	408.54	445.92	1.5	ANNUAL	ALL	5
507123.87	4319978.66	0.0002	408.45	445.92	1.5	ANNUAL	ALL	5
507130.79	4319995.93	0.00018	408.32	445.92	1.5	ANNUAL	ALL	5
507137.71	4320013.19	0.00017	408.43	445.92	1.5	ANNUAL	ALL	5
506786.93	4319655.86	0.0009	412.57	648.69	1.5	ANNUAL	ALL	5
506768.24	4319655	0.00094	412.66	648.69	1.5	ANNUAL	ALL	5
506749.54	4319654.13	0.00098	412.48	648.69	1.5	ANNUAL	ALL	5
506730.85	4319653.27	0.00102	412.96	648.69	1.5	ANNUAL	ALL	5
506807.32	4319588.65	0.00071	421.4	648.69	1.5	ANNUAL	ALL	5
506824.25	4319596.36	0.0007	421.09	648.69	1.5	ANNUAL	ALL	5
506841.17	4319604.06	0.00069	419.7	648.69	1.5	ANNUAL	ALL	5
506858.1	4319611.77	0.00068	417.39	648.69	1.5	ANNUAL	ALL	5
506875.03	4319619.48	0.00066	415.22	648.69	1.5	ANNUAL	ALL	5
506891.96	4319627.19	0.00064	413.58	648.69	1.5	ANNUAL	ALL	5
506908.88	4319634.9	0.00062	412.57	648.69	1.5	ANNUAL	ALL	5
506925.81	4319642.61	0.0006	411.99	648.69	1.5	ANNUAL	ALL	5
506942.74	4319650.31	0.00058	411.32	648.69	1.5	ANNUAL	ALL	5
507044.3	4319696.56	0.00044	409.32	648.69	1.5	ANNUAL	ALL	5
507061.23	4319704.27	0.00042	409.4	648.69	1.5	ANNUAL	ALL	5
507078.16	4319711.98	0.00039	409.48	648.69	1.5	ANNUAL	ALL	5
507102	4319736.95	0.00036	409.58	648.69	1.5	ANNUAL	ALL	5
507108.92	4319754.22	0.00034	409.54	648.69	1.5	ANNUAL	ALL	5
507115.84	4319771.48	0.00033	409.4	648.69	1.5	ANNUAL	ALL	5
507122.76	4319788.75	0.00032	409.31	648.69	1.5	ANNUAL	ALL	5
507129.68	4319806.01	0.0003	409.22	648.69	1.5	ANNUAL	ALL	5
507136.6	4319823.28	0.00028	409.08	648.69	1.5	ANNUAL	ALL	5
507143.52	4319840.54	0.00027	408.99	648.69	1.5	ANNUAL	ALL	5
507150.44	4319857.81	0.00025	408.63	648.69	1.5	ANNUAL	ALL	5
507157.36	4319875.07	0.00023	408.12	648.69	1.5	ANNUAL	ALL	5
507164.28	4319892.34	0.00022	407.93	445.79	1.5	ANNUAL	ALL	5
507171.2	4319909.6	0.0002	407.81	445.88	1.5	ANNUAL	ALL	5
507178.12	4319926.87	0.00019	407.74	445.92	1.5	ANNUAL	ALL	5
507185.03	4319944.13	0.00018	407.67	445.92	1.5	ANNUAL	ALL	5
507191.95	4319961.4	0.00016	407.61	445.92	1.5	ANNUAL	ALL	5

507198.87	4319978.66	0.00015	407.48	445.92	1.5	ANNUAL	ALL	5
507205.79	4319995.93	0.00014	407.32	445.92	1.5	ANNUAL	ALL	5
507212.71	4320013.19	0.00013	407.22	445.92	1.5	ANNUAL	ALL	5
506790.39	4319580.94	0.00072	421.61	648.69	1.5	ANNUAL	ALL	5
506771.7	4319580.08	0.00075	421.65	648.69	1.5	ANNUAL	ALL	5
506753	4319579.21	0.00077	422.3	648.69	1.5	ANNUAL	ALL	5
506734.31	4319578.35	0.00079	424.74	648.69	1.5	ANNUAL	ALL	5
506655.11	4320009.77	0.00421	415.49	648.69	1.5	ANNUAL	ALL	5
506635.7	4320009.98	0.00545	416.51	648.69	1.5	ANNUAL	ALL	5
506616.29	4320010.2	0.00723	417.44	648.69	1.5	ANNUAL	ALL	5
506596.88	4320010.42	0.00981	418.06	648.69	1.5	ANNUAL	ALL	5
506577.47	4320010.63	0.01374	419.08	648.69	1.5	ANNUAL	ALL	5
506558.06	4320010.85	0.01943	421.03	648.69	1.5	ANNUAL	ALL	5
506538.65	4320011.06	0.02615	422.45	648.69	1.5	ANNUAL	ALL	5
506519.24	4320011.28	0.03143	423.11	648.69	1.5	ANNUAL	ALL	5
506499.83	4320011.5	0.03376	423.16	648.69	1.5	ANNUAL	ALL	5
506480.42	4320011.71	0.03416	423.21	648.69	1.5	ANNUAL	ALL	5
506693.72	4319990.59	0.00286	414.73	648.69	1.5	ANNUAL	ALL	5
506674.31	4319990.8	0.00352	414.94	648.69	1.5	ANNUAL	ALL	5
506654.9	4319991.02	0.00439	415.38	648.69	1.5	ANNUAL	ALL	5
506635.49	4319991.24	0.00559	416.6	648.69	1.5	ANNUAL	ALL	5
506616.08	4319991.45	0.00722	417.71	648.69	1.5	ANNUAL	ALL	5
506596.67	4319991.67	0.00943	418.13	648.69	1.5	ANNUAL	ALL	5
506577.26	4319991.88	0.01243	418.76	648.69	1.5	ANNUAL	ALL	5
506557.85	4319992.1	0.01638	420.12	648.69	1.5	ANNUAL	ALL	5
506538.44	4319992.31	0.02036	420.96	648.69	1.5	ANNUAL	ALL	5
506519.03	4319992.53	0.02341	421.4	648.69	1.5	ANNUAL	ALL	5
506499.62	4319992.75	0.02478	421.69	648.69	1.5	ANNUAL	ALL	5
506480.21	4319992.96	0.02468	422.04	648.69	1.5	ANNUAL	ALL	5
506693.51	4319971.84	0.00297	414.75	648.69	1.5	ANNUAL	ALL	5
506674.1	4319972.06	0.00361	415.05	648.69	1.5	ANNUAL	ALL	5
506654.69	4319972.27	0.00443	415.46	648.69	1.5	ANNUAL	ALL	5
506635.28	4319972.49	0.00552	416.77	648.69	1.5	ANNUAL	ALL	5
506615.87	4319972.7	0.00692	417.86	648.69	1.5	ANNUAL	ALL	5
506596.46	4319972.92	0.00865	417.99	648.69	1.5	ANNUAL	ALL	5
506577.05	4319973.13	0.01078	418.24	648.69	1.5	ANNUAL	ALL	5
506557.64	4319973.35	0.01322	418.86	648.69	1.5	ANNUAL	ALL	5
506538.23	4319973.57	0.01562	419.45	648.69	1.5	ANNUAL	ALL	5
506518.82	4319973.78	0.01743	420	648.69	1.5	ANNUAL	ALL	5
506499.41	4319974	0.01821	420.53	648.69	1.5	ANNUAL	ALL	5
506480	4319974.21	0.01797	421.06	648.69	1.5	ANNUAL	ALL	5
506693.31	4319953.09	0.00301	414.83	648.69	1.5	ANNUAL	ALL	5
506673.9	4319953.31	0.00361	415.22	648.69	1.5	ANNUAL	ALL	5
506654.49	4319953.52	0.00434	415.5	648.69	1.5	ANNUAL	ALL	5
506635.08	4319953.74	0.00526	416.37	648.69	1.5	ANNUAL	ALL	5
506615.67	4319953.95	0.00639	417.07	648.69	1.5	ANNUAL	ALL	5
506596.26	4319954.17	0.0077	417.2	648.69	1.5	ANNUAL	ALL	5
506576.85	4319954.39	0.00919	417.66	648.69	1.5	ANNUAL	ALL	5
506557.44	4319954.6	0.01075	418.46	648.69	1.5	ANNUAL	ALL	5
506538.03	4319954.82	0.01216	419.14	648.69	1.5	ANNUAL	ALL	5
506518.62	4319955.03	0.01318	419.76	648.69	1.5	ANNUAL	ALL	5
506499.21	4319955.25	0.01359	420.33	648.69	1.5	ANNUAL	ALL	5
506479.8	4319955.46	0.01333	420.76	648.69	1.5	ANNUAL	ALL	5
506693.1	4319934.34	0.00299	414.86	648.69	1.5	ANNUAL	ALL	5
506673.69	4319934.56	0.00352	415.28	648.69	1.5	ANNUAL	ALL	5
506654.28	4319934.77	0.00415	415.39	648.69	1.5	ANNUAL	ALL	5
506634.87	4319934.99	0.00491	415.85	648.69	1.5	ANNUAL	ALL	5
506615.46	4319935.2	0.00578	416.27	648.69	1.5	ANNUAL	ALL	5
506596.05	4319935.42	0.00676	416.53	648.69	1.5	ANNUAL	ALL	5
506576.64	4319935.64	0.00781	417.29	648.69	1.5	ANNUAL	ALL	5
506557.23	4319935.85	0.00884	418.38	648.69	1.5	ANNUAL	ALL	5
506537.82	4319936.07	0.00969	419.17	648.69	1.5	ANNUAL	ALL	5
506518.41	4319936.28	0.01026	419.81	648.69	1.5	ANNUAL	ALL	5
506499	4319936.5	0.01043	420.34	648.69	1.5	ANNUAL	ALL	5
506479.59	4319936.72	0.01017	420.62	648.69	1.5	ANNUAL	ALL	5
506692.89	4319915.59	0.00291	414.75	648.69	1.5	ANNUAL	ALL	5
506673.48	4319915.81	0.00337	414.94	648.69	1.5	ANNUAL	ALL	5
506654.07	4319916.02	0.00389	414.79	648.69	1.5	ANNUAL	ALL	5
506634.66	4319916.24	0.00451	415.3	648.69	1.5	ANNUAL	ALL	5
506615.25	4319916.46	0.0052	416.09	648.69	1.5	ANNUAL	ALL	5
506595.84	4319916.67	0.00593	416.92	648.69	1.5	ANNUAL	ALL	5
506576.43	4319916.89	0.00667	417.89	648.69	1.5	ANNUAL	ALL	5
506557.02	4319917.1	0.00734	418.8	648.69	1.5	ANNUAL	ALL	5
506537.61	4319917.32	0.00786	419.34	648.69	1.5	ANNUAL	ALL	5
506518.2	4319917.54	0.00817	419.67	648.69	1.5	ANNUAL	ALL	5
506498.79	4319917.75	0.00822	419.94	648.69	1.5	ANNUAL	ALL	5
506479.38	4319917.97	0.00799	420.22	648.69	1.5	ANNUAL	ALL	5
506692.68	4319896.84	0.00278	414.39	648.69	1.5	ANNUAL	ALL	5
506673.27	4319897.06	0.00318	414.44	648.69	1.5	ANNUAL	ALL	5
506653.86	4319897.28	0.00361	414.4	648.69	1.5	ANNUAL	ALL	5
506634.45	4319897.49	0.00411	415.09	648.69	1.5	ANNUAL	ALL	5
506615.04	4319897.71	0.00464	416.08	648.69	1.5	ANNUAL	ALL	5
506595.63	4319897.92	0.00519	417.04	648.69	1.5	ANNUAL	ALL	5
506576.22	4319898.14	0.00571	417.93	648.69	1.5	ANNUAL	ALL	5

506556.81	4319898.35	0.00614	418.5	648.69	1.5	ANNUAL	ALL	5
506537.4	4319898.57	0.00647	419.17	648.69	1.5	ANNUAL	ALL	5
506517.99	4319898.79	0.00662	419.46	648.69	1.5	ANNUAL	ALL	5
506498.58	4319899	0.0066	419.37	648.69	1.5	ANNUAL	ALL	5
506479.17	4319899.22	0.00639	419.26	648.69	1.5	ANNUAL	ALL	5
506692.47	4319878.1	0.00264	413.87	648.69	1.5	ANNUAL	ALL	5
506673.06	4319878.31	0.00296	413.83	648.69	1.5	ANNUAL	ALL	5
506653.65	4319878.53	0.00332	414.15	648.69	1.5	ANNUAL	ALL	5
506634.24	4319878.74	0.00372	415.14	648.69	1.5	ANNUAL	ALL	5
506614.83	4319878.96	0.00414	416.18	648.69	1.5	ANNUAL	ALL	5
506595.42	4319879.17	0.00454	416.93	648.69	1.5	ANNUAL	ALL	5
506576.01	4319879.39	0.0049	417.47	648.69	1.5	ANNUAL	ALL	5
506556.6	4319879.61	0.00518	417.52	648.69	1.5	ANNUAL	ALL	5
506537.19	4319879.82	0.00538	418.71	648.69	1.5	ANNUAL	ALL	5
506517.78	4319880.04	0.00546	419.19	648.69	1.5	ANNUAL	ALL	5
506498.37	4319880.25	0.00539	418.6	648.69	1.5	ANNUAL	ALL	5
506478.96	4319880.47	0.00518	417.72	648.69	1.5	ANNUAL	ALL	5
506692.06	4319840.6	0.00231	412.81	648.69	1.5	ANNUAL	ALL	5
506672.65	4319840.81	0.00254	413	648.69	1.5	ANNUAL	ALL	5
506653.24	4319841.03	0.00277	413.28	648.69	1.5	ANNUAL	ALL	5
506633.83	4319841.24	0.00302	413.73	648.69	1.5	ANNUAL	ALL	5
506614.42	4319841.46	0.00325	414.28	648.69	1.5	ANNUAL	ALL	5
506595.01	4319841.68	0.00347	414.87	648.69	1.5	ANNUAL	ALL	5
506575.6	4319841.89	0.00365	415.47	648.69	1.5	ANNUAL	ALL	5
506556.19	4319842.11	0.00378	416.29	648.69	1.5	ANNUAL	ALL	5
506536.78	4319842.32	0.00384	416.45	648.69	1.5	ANNUAL	ALL	5
506517.37	4319842.54	0.00382	416.29	648.69	1.5	ANNUAL	ALL	5
506497.96	4319842.76	0.00373	415.98	648.69	1.5	ANNUAL	ALL	5
506478.55	4319842.97	0.00358	415.58	648.69	1.5	ANNUAL	ALL	5
506691.64	4319803.1	0.00199	412.64	648.69	1.5	ANNUAL	ALL	5
506672.23	4319803.32	0.00215	412.8	648.69	1.5	ANNUAL	ALL	5
506652.82	4319803.53	0.00231	412.98	648.69	1.5	ANNUAL	ALL	5
506633.41	4319803.75	0.00246	413.2	648.69	1.5	ANNUAL	ALL	5
506614	4319803.96	0.00259	413.45	648.69	1.5	ANNUAL	ALL	5
506594.59	4319804.18	0.00271	413.72	648.69	1.5	ANNUAL	ALL	5
506575.18	4319804.39	0.00279	413.97	648.69	1.5	ANNUAL	ALL	5
506555.77	4319804.61	0.00283	413.91	648.69	1.5	ANNUAL	ALL	5
506536.36	4319804.83	0.00284	414.24	648.69	1.5	ANNUAL	ALL	5
506516.95	4319805.04	0.0028	414.51	648.69	1.5	ANNUAL	ALL	5
506497.54	4319805.26	0.00273	414.66	648.69	1.5	ANNUAL	ALL	5
506478.13	4319805.47	0.00261	414.8	648.69	1.5	ANNUAL	ALL	5
506691.22	4319765.6	0.00171	412.45	648.69	1.5	ANNUAL	ALL	5
506671.81	4319765.82	0.00182	412.57	648.69	1.5	ANNUAL	ALL	5
506652.4	4319766.03	0.00192	412.82	648.69	1.5	ANNUAL	ALL	5
506632.99	4319766.25	0.00202	413.08	648.69	1.5	ANNUAL	ALL	5
506613.58	4319766.47	0.00209	413.26	648.69	1.5	ANNUAL	ALL	5
506594.17	4319766.68	0.00215	413.39	648.69	1.5	ANNUAL	ALL	5
506574.76	4319766.9	0.00219	413.53	648.69	1.5	ANNUAL	ALL	5
506555.35	4319767.11	0.0022	413.39	648.69	1.5	ANNUAL	ALL	5
506535.94	4319767.33	0.00218	413.88	648.69	1.5	ANNUAL	ALL	5
506516.53	4319767.54	0.00214	414.27	648.69	1.5	ANNUAL	ALL	5
506497.12	4319767.76	0.00207	414.47	648.69	1.5	ANNUAL	ALL	5
506477.71	4319767.98	0.00198	414.66	648.69	1.5	ANNUAL	ALL	5
506690.8	4319728.1	0.00147	412.38	648.69	1.5	ANNUAL	ALL	5
506671.39	4319728.32	0.00155	412.57	648.69	1.5	ANNUAL	ALL	5
506651.98	4319728.54	0.00161	412.91	648.69	1.5	ANNUAL	ALL	5
506632.57	4319728.75	0.00167	413.07	648.69	1.5	ANNUAL	ALL	5
506613.16	4319728.97	0.00171	413.22	648.69	1.5	ANNUAL	ALL	5
506593.75	4319729.18	0.00174	413.33	648.69	1.5	ANNUAL	ALL	5
506574.34	4319729.4	0.00175	413.35	648.69	1.5	ANNUAL	ALL	5
506554.93	4319729.62	0.00174	413.26	648.69	1.5	ANNUAL	ALL	5
506535.52	4319729.83	0.00172	413.83	648.69	1.5	ANNUAL	ALL	5
506516.11	4319730.05	0.00168	414.05	648.69	1.5	ANNUAL	ALL	5
506496.7	4319730.26	0.00162	414.08	648.69	1.5	ANNUAL	ALL	5
506477.29	4319730.48	0.00155	414.2	648.69	1.5	ANNUAL	ALL	5
506709.38	4319652.89	0.00107	413.77	648.69	1.5	ANNUAL	ALL	5
506689.97	4319653.11	0.00111	414.5	648.69	1.5	ANNUAL	ALL	5
506670.56	4319653.32	0.00114	415.36	648.69	1.5	ANNUAL	ALL	5
506651.15	4319653.54	0.00117	416.15	648.69	1.5	ANNUAL	ALL	5
506631.74	4319653.76	0.00119	416.08	648.69	1.5	ANNUAL	ALL	5
506612.33	4319653.97	0.00119	415.34	648.69	1.5	ANNUAL	ALL	5
506592.92	4319654.19	0.00119	414.4	648.69	1.5	ANNUAL	ALL	5
506573.51	4319654.4	0.00118	413.73	648.69	1.5	ANNUAL	ALL	5
506554.1	4319654.62	0.00116	413.58	648.69	1.5	ANNUAL	ALL	5
506534.69	4319654.84	0.00113	414.03	648.69	1.5	ANNUAL	ALL	5
506515.28	4319655.05	0.0011	414.6	648.69	1.5	ANNUAL	ALL	5
506495.87	4319655.27	0.00106	414.84	648.69	1.5	ANNUAL	ALL	5
506476.46	4319655.48	0.00102	414.63	648.69	1.5	ANNUAL	ALL	5
506708.55	4319577.9	0.0008	429.41	648.69	1.5	ANNUAL	ALL	5
506689.14	4319578.11	0.00081	431.33	648.69	1.5	ANNUAL	ALL	5
506669.73	4319578.33	0.00083	430.78	648.69	1.5	ANNUAL	ALL	5
506650.32	4319578.55	0.00085	426.07	648.69	1.5	ANNUAL	ALL	5
506630.91	4319578.76	0.00086	422.68	648.69	1.5	ANNUAL	ALL	5
506611.5	4319578.98	0.00086	420.37	648.69	1.5	ANNUAL	ALL	5

506592.09	4319579.19	0.00085	418.39	648.69	1.5	ANNUAL	ALL	5
506572.68	4319579.41	0.00084	416.44	648.69	1.5	ANNUAL	ALL	5
506553.27	4319579.62	0.00082	415.22	648.69	1.5	ANNUAL	ALL	5
506533.86	4319579.84	0.00079	415.3	648.69	1.5	ANNUAL	ALL	5
506514.45	4319580.06	0.00077	416.28	648.69	1.5	ANNUAL	ALL	5
506495.04	4319580.27	0.00074	417.59	648.69	1.5	ANNUAL	ALL	5
506475.63	4319580.49	0.00072	418.51	648.69	1.5	ANNUAL	ALL	5
506462.36	4320012	0.0334	423.29	648.69	1.5	ANNUAL	ALL	5
506426.41	4320012.58	0.02851	423.56	648.69	1.5	ANNUAL	ALL	5
506390.47	4320013.15	0.01801	423.51	648.69	1.5	ANNUAL	ALL	5
506462.06	4319993.25	0.02376	422.23	648.69	1.5	ANNUAL	ALL	5
506426.11	4319993.83	0.01944	422.7	648.69	1.5	ANNUAL	ALL	5
506390.17	4319994.41	0.0123	422.64	648.69	1.5	ANNUAL	ALL	5
506461.76	4319974.51	0.01707	421.5	648.69	1.5	ANNUAL	ALL	5
506425.81	4319975.08	0.01372	421.96	648.69	1.5	ANNUAL	ALL	5
506389.87	4319975.66	0.00903	421.59	648.69	1.5	ANNUAL	ALL	5
506461.46	4319955.76	0.01266	420.82	648.69	1.5	ANNUAL	ALL	5
506443.48	4319956.05	0.01164	420.66	648.69	1.5	ANNUAL	ALL	5
506407.54	4319956.62	0.00874	420.14	648.69	1.5	ANNUAL	ALL	5
506371.6	4319957.2	0.00546	419.38	648.69	1.5	ANNUAL	ALL	5
506461.15	4319937.01	0.00969	420.1	648.69	1.5	ANNUAL	ALL	5
506425.21	4319937.59	0.00781	418.55	648.69	1.5	ANNUAL	ALL	5
506389.27	4319938.16	0.00547	417.87	648.69	1.5	ANNUAL	ALL	5
506371.3	4319938.45	0.00437	417.56	648.69	1.5	ANNUAL	ALL	5
506460.85	4319918.26	0.00753	418.94	648.69	1.5	ANNUAL	ALL	5
506424.91	4319918.84	0.0061	417.43	648.69	1.5	ANNUAL	ALL	5
506388.97	4319919.42	0.00442	416.96	648.69	1.5	ANNUAL	ALL	5
506460.55	4319899.52	0.00599	417.78	648.69	1.5	ANNUAL	ALL	5
506424.61	4319900.09	0.00489	416.39	648.69	1.5	ANNUAL	ALL	5
506406.64	4319900.38	0.00428	416.22	648.69	1.5	ANNUAL	ALL	5
506370.69	4319900.96	0.00308	416.77	648.69	1.5	ANNUAL	ALL	5
506460.25	4319880.77	0.00486	416.66	648.69	1.5	ANNUAL	ALL	5
506424.31	4319881.34	0.00402	415.5	648.69	1.5	ANNUAL	ALL	5
506388.37	4319881.92	0.0031	416.37	648.69	1.5	ANNUAL	ALL	5
506459.65	4319843.27	0.00336	415.04	648.69	1.5	ANNUAL	ALL	5
506423.71	4319843.85	0.00288	415.85	648.69	1.5	ANNUAL	ALL	5
506387.76	4319844.43	0.00231	416.27	648.69	1.5	ANNUAL	ALL	5
506459.05	4319805.78	0.00247	415.11	648.69	1.5	ANNUAL	ALL	5
506441.08	4319806.07	0.00232	415.31	648.69	1.5	ANNUAL	ALL	5
506405.13	4319806.64	0.00197	415.75	648.69	1.5	ANNUAL	ALL	5
506369.19	4319807.22	0.0016	416.33	648.69	1.5	ANNUAL	ALL	5
506458.45	4319768.28	0.00188	414.77	648.69	1.5	ANNUAL	ALL	5
506422.5	4319768.86	0.00166	415.1	648.69	1.5	ANNUAL	ALL	5
506386.56	4319769.44	0.00142	415.71	648.69	1.5	ANNUAL	ALL	5
506457.85	4319730.79	0.00147	414.13	648.69	1.5	ANNUAL	ALL	5
506421.9	4319731.36	0.00132	414.84	648.69	1.5	ANNUAL	ALL	5
506385.96	4319731.94	0.00115	416.51	648.69	1.5	ANNUAL	ALL	5
506456.64	4319655.8	0.00097	414.6	648.69	1.5	ANNUAL	ALL	5
506438.67	4319656.08	0.00093	414.83	648.69	1.5	ANNUAL	ALL	5
506402.73	4319656.66	0.00084	415.92	648.69	1.5	ANNUAL	ALL	5
506366.78	4319657.24	0.00075	417.46	648.69	1.5	ANNUAL	ALL	5
506455.44	4319580.81	0.00069	418.18	648.69	1.5	ANNUAL	ALL	5
506419.5	4319581.38	0.00064	416.91	648.69	1.5	ANNUAL	ALL	5
506383.55	4319581.96	0.00058	417.14	648.69	1.5	ANNUAL	ALL	5
506339.84	4320036.71	0.00713	423.71	648.69	1.5	ANNUAL	ALL	5
506340.14	4320021.59	0.00595	422.79	648.69	1.5	ANNUAL	ALL	5
506358.5	4320000.97	0.00694	421.95	648.69	1.5	ANNUAL	ALL	5
506337.21	4320053.17	0.00826	424.38	648.69	1.5	ANNUAL	ALL	5
506321.48	4320023.45	0.00444	421.79	648.69	1.5	ANNUAL	ALL	5
506344.49	4319988.5	0.00472	420.6	648.69	1.5	ANNUAL	ALL	5
506318.55	4320055.04	0.00589	422.88	648.69	1.5	ANNUAL	ALL	5
506302.83	4320025.32	0.00348	420.6	648.69	1.5	ANNUAL	ALL	5
506312.13	4319996.65	0.00304	419.37	648.69	1.5	ANNUAL	ALL	5
506330.49	4319976.03	0.00333	419.02	648.69	1.5	ANNUAL	ALL	5
506299.9	4320056.9	0.00442	421.61	648.69	1.5	ANNUAL	ALL	5
506284.17	4320027.18	0.00278	419.66	648.69	1.5	ANNUAL	ALL	5
506293.48	4319998.51	0.00241	418.75	648.69	1.5	ANNUAL	ALL	5
506316.49	4319963.56	0.00244	417.68	648.69	1.5	ANNUAL	ALL	5
506343.89	4319951.01	0.00332	417.77	648.69	1.5	ANNUAL	ALL	5
506281.24	4320058.77	0.00344	420.75	648.69	1.5	ANNUAL	ALL	5
506265.51	4320029.05	0.00226	419.36	648.69	1.5	ANNUAL	ALL	5
506274.82	4320000.38	0.00198	418.52	648.69	1.5	ANNUAL	ALL	5
506284.13	4319971.71	0.00175	418.01	648.69	1.5	ANNUAL	ALL	5
506302.49	4319951.1	0.00188	417.58	648.69	1.5	ANNUAL	ALL	5
506329.89	4319938.54	0.00246	416.68	648.69	1.5	ANNUAL	ALL	5
506357.29	4319925.98	0.00324	417.2	648.69	1.5	ANNUAL	ALL	5
506262.58	4320060.63	0.00274	420.17	648.69	1.5	ANNUAL	ALL	5
506246.86	4320030.91	0.00187	419.28	648.69	1.5	ANNUAL	ALL	5
506256.16	4320002.24	0.00167	418.63	648.69	1.5	ANNUAL	ALL	5
506265.47	4319973.57	0.00147	418.14	648.69	1.5	ANNUAL	ALL	5
506288.48	4319938.63	0.00149	417.9	648.69	1.5	ANNUAL	ALL	5
506315.89	4319926.07	0.00191	417.34	648.69	1.5	ANNUAL	ALL	5
506343.29	4319913.51	0.00248	417.17	648.69	1.5	ANNUAL	ALL	5
506243.93	4320062.5	0.00221	420.36	648.69	1.5	ANNUAL	ALL	5

506234.18	4320014.35	0.00148	418.99	648.69	1.5	ANNUAL	ALL	5
506244.82	4319981.58	0.0013	418.48	648.69	1.5	ANNUAL	ALL	5
506255.46	4319948.82	0.00115	418.36	648.69	1.5	ANNUAL	ALL	5
506292.1	4319918.08	0.00139	417.84	648.69	1.5	ANNUAL	ALL	5
506323.42	4319903.73	0.00185	417.52	648.69	1.5	ANNUAL	ALL	5
506354.73	4319889.38	0.0024	417.07	648.69	1.5	ANNUAL	ALL	5
506223.54	4320047.12	0.00164	419.63	648.69	1.5	ANNUAL	ALL	5
506226.99	4320081.62	0.002	421.12	648.69	1.5	ANNUAL	ALL	5
506191.4	4320034.92	0.00116	419.62	648.69	1.5	ANNUAL	ALL	5
506201.74	4320003.06	0.00106	419.31	648.69	1.5	ANNUAL	ALL	5
506212.09	4319971.21	0.00094	418.72	648.69	1.5	ANNUAL	ALL	5
506222.43	4319939.35	0.00084	418.64	648.69	1.5	ANNUAL	ALL	5
506248	4319900.52	0.00084	418.19	648.69	1.5	ANNUAL	ALL	5
506278.45	4319886.57	0.00105	417.75	648.69	1.5	ANNUAL	ALL	5
506308.89	4319872.62	0.00136	417.38	648.69	1.5	ANNUAL	ALL	5
506339.34	4319858.67	0.00171	417.1	648.69	1.5	ANNUAL	ALL	5
506187.96	4320068.1	0.00131	420.24	648.69	1.5	ANNUAL	ALL	5
506153.99	4320038.94	0.00089	419.79	648.69	1.5	ANNUAL	ALL	5
506164.15	4320007.66	0.00083	419.69	648.69	1.5	ANNUAL	ALL	5
506174.3	4319976.39	0.00075	419.54	648.69	1.5	ANNUAL	ALL	5
506184.46	4319945.11	0.00068	419.18	648.69	1.5	ANNUAL	ALL	5
506194.61	4319913.83	0.00061	419.36	648.69	1.5	ANNUAL	ALL	5
506219.72	4319875.71	0.00061	418.64	648.69	1.5	ANNUAL	ALL	5
506249.61	4319862.01	0.00074	418.05	648.69	1.5	ANNUAL	ALL	5
506279.51	4319848.31	0.00093	417.82	648.69	1.5	ANNUAL	ALL	5
506309.4	4319834.61	0.00116	417.33	648.69	1.5	ANNUAL	ALL	5
506339.3	4319820.92	0.0014	416.71	648.69	1.5	ANNUAL	ALL	5
506150.64	4320071.83	0.00098	420.17	648.69	1.5	ANNUAL	ALL	5
506116.61	4320042.87	0.00069	420.74	648.69	1.5	ANNUAL	ALL	5
506126.64	4320012	0.00066	420.42	648.69	1.5	ANNUAL	ALL	5
506136.66	4319981.12	0.00061	420.2	648.69	1.5	ANNUAL	ALL	5
506146.69	4319950.24	0.00056	420.18	648.69	1.5	ANNUAL	ALL	5
506156.71	4319919.37	0.00051	420.16	648.69	1.5	ANNUAL	ALL	5
506166.74	4319888.49	0.00047	419.93	648.69	1.5	ANNUAL	ALL	5
506191.52	4319850.86	0.00046	419.41	648.69	1.5	ANNUAL	ALL	5
506221.03	4319837.33	0.00055	418.88	648.69	1.5	ANNUAL	ALL	5
506250.54	4319823.81	0.00067	419.16	648.69	1.5	ANNUAL	ALL	5
506280.05	4319810.29	0.00083	418.95	648.69	1.5	ANNUAL	ALL	5
506309.57	4319796.77	0.001	418.13	648.69	1.5	ANNUAL	ALL	5
506339.08	4319783.25	0.00117	417.28	648.69	1.5	ANNUAL	ALL	5
506113.33	4320075.56	0.00075	420.9	648.69	1.5	ANNUAL	ALL	5
506079.61	4320045.66	0.00056	421.34	648.69	1.5	ANNUAL	ALL	5
506090.25	4320012.89	0.00053	421.24	648.69	1.5	ANNUAL	ALL	5
506100.88	4319980.13	0.0005	420.91	648.69	1.5	ANNUAL	ALL	5
506111.52	4319947.36	0.00046	421.04	648.69	1.5	ANNUAL	ALL	5
506122.16	4319914.59	0.00041	421.74	648.69	1.5	ANNUAL	ALL	5
506132.8	4319881.83	0.00038	421.21	648.69	1.5	ANNUAL	ALL	5
506143.44	4319849.06	0.00035	420.57	648.69	1.5	ANNUAL	ALL	5
506164.42	4319825.5	0.00036	420.67	648.69	1.5	ANNUAL	ALL	5
506195.73	4319811.15	0.00043	419.84	648.69	1.5	ANNUAL	ALL	5
506227.05	4319796.8	0.00052	420.51	648.69	1.5	ANNUAL	ALL	5
506258.37	4319782.45	0.00064	421.19	648.69	1.5	ANNUAL	ALL	5
506289.69	4319768.1	0.00078	420.94	648.69	1.5	ANNUAL	ALL	5
506321.01	4319753.75	0.00092	419.57	648.69	1.5	ANNUAL	ALL	5
506352.33	4319739.4	0.00103	418.71	648.69	1.5	ANNUAL	ALL	5
506076.01	4320079.29	0.0006	421.14	648.69	1.5	ANNUAL	ALL	5
506004.83	4320053.58	0.00038	422.25	648.69	1.5	ANNUAL	ALL	5
506015.18	4320021.72	0.00037	422.5	648.69	1.5	ANNUAL	ALL	5
506025.52	4319989.86	0.00035	423.75	648.69	1.5	ANNUAL	ALL	5
506035.86	4319958.01	0.00033	424.16	648.69	1.5	ANNUAL	ALL	5
506046.2	4319926.15	0.00031	422.95	648.69	1.5	ANNUAL	ALL	5
506056.55	4319894.3	0.00029	423.07	648.69	1.5	ANNUAL	ALL	5
506066.89	4319862.44	0.00026	424.23	648.69	1.5	ANNUAL	ALL	5
506077.23	4319830.59	0.00024	423.95	648.69	1.5	ANNUAL	ALL	5
506087.57	4319798.73	0.00023	424.2	648.69	1.5	ANNUAL	ALL	5
506107.97	4319775.83	0.00023	424.12	648.69	1.5	ANNUAL	ALL	5
506138.42	4319761.87	0.00026	422.99	648.69	1.5	ANNUAL	ALL	5
506168.87	4319747.92	0.00031	422.83	648.69	1.5	ANNUAL	ALL	5
506199.32	4319733.97	0.00035	425.54	648.69	1.5	ANNUAL	ALL	5
506229.77	4319720.02	0.00042	426.88	648.69	1.5	ANNUAL	ALL	5
506260.21	4319706.07	0.00052	424.36	648.69	1.5	ANNUAL	ALL	5
506290.66	4319692.12	0.00061	421.9	648.69	1.5	ANNUAL	ALL	5
506321.11	4319678.17	0.00069	420.36	648.69	1.5	ANNUAL	ALL	5
506001.39	4320086.75	0.0004	422.72	648.69	1.5	ANNUAL	ALL	5
505930.35	4320060.58	0.00027	423.95	648.69	1.5	ANNUAL	ALL	5
505940.99	4320027.82	0.00027	423.77	648.69	1.5	ANNUAL	ALL	5
505951.63	4319995.05	0.00026	423.87	648.69	1.5	ANNUAL	ALL	5
505962.27	4319962.29	0.00024	425.52	648.69	1.5	ANNUAL	ALL	5
505972.91	4319929.52	0.00023	424.93	648.69	1.5	ANNUAL	ALL	5
505983.54	4319896.75	0.00022	424.47	648.69	1.5	ANNUAL	ALL	5
505994.18	4319863.99	0.0002	425.38	648.69	1.5	ANNUAL	ALL	5
506004.82	4319831.22	0.00019	426.88	648.69	1.5	ANNUAL	ALL	5
506015.46	4319798.46	0.00017	427.78	648.69	1.5	ANNUAL	ALL	5
506026.1	4319765.69	0.00016	428.83	648.69	1.5	ANNUAL	ALL	5

506052.39	4319725.75	0.00015	429.84	648.69	1.5	ANNUAL	ALL	5
506083.71	4319711.4	0.00016	429.18	648.69	1.5	ANNUAL	ALL	5
506115.03	4319697.05	0.00019	426.26	648.69	1.5	ANNUAL	ALL	5
506146.35	4319682.7	0.00024	425.21	648.69	1.5	ANNUAL	ALL	5
506177.67	4319668.35	0.00028	428.25	648.69	1.5	ANNUAL	ALL	5
506208.99	4319654	0.00033	427.47	648.69	1.5	ANNUAL	ALL	5
506240.31	4319639.65	0.0004	424.32	648.69	1.5	ANNUAL	ALL	5
506271.63	4319625.3	0.00046	422.52	648.69	1.5	ANNUAL	ALL	5
506302.94	4319610.95	0.0005	420.73	648.69	1.5	ANNUAL	ALL	5
506334.26	4319596.6	0.00054	418.2	648.69	1.5	ANNUAL	ALL	5
505926.76	4320094.22	0.00028	425.25	648.69	1.5	ANNUAL	ALL	5
506339.08	4320071.65	0.01037	425.14	648.69	1.5	ANNUAL	ALL	5
506341.67	4320091.06	0.01267	425.96	648.69	1.5	ANNUAL	ALL	5
506344.26	4320110.47	0.0142	427.01	648.69	1.5	ANNUAL	ALL	5
506320.49	4320074.13	0.00727	423.68	648.69	1.5	ANNUAL	ALL	5
506323.08	4320093.54	0.00877	424.52	648.69	1.5	ANNUAL	ALL	5
506325.67	4320112.95	0.0099	425.34	648.69	1.5	ANNUAL	ALL	5
506301.91	4320076.61	0.00532	422.37	648.69	1.5	ANNUAL	ALL	5
506304.5	4320096.02	0.00628	423.12	648.69	1.5	ANNUAL	ALL	5
506307.09	4320115.43	0.00718	423.79	648.69	1.5	ANNUAL	ALL	5
506283.32	4320079.09	0.00404	421.47	648.69	1.5	ANNUAL	ALL	5
506285.91	4320098.5	0.00468	422.12	648.69	1.5	ANNUAL	ALL	5
506288.5	4320117.91	0.0053	422.67	648.69	1.5	ANNUAL	ALL	5
506264.74	4320081.57	0.00318	420.86	648.69	1.5	ANNUAL	ALL	5
506267.33	4320100.98	0.00361	421.55	648.69	1.5	ANNUAL	ALL	5
506269.92	4320120.39	0.00403	422.22	648.69	1.5	ANNUAL	ALL	5
506246.15	4320084.05	0.00253	421.08	648.69	1.5	ANNUAL	ALL	5
506248.74	4320103.46	0.00283	421.8	648.69	1.5	ANNUAL	ALL	5
506251.33	4320122.87	0.00312	422.53	648.69	1.5	ANNUAL	ALL	5
506230.16	4320105.94	0.00227	422.24	648.69	1.5	ANNUAL	ALL	5
506232.75	4320125.35	0.00248	423.18	648.69	1.5	ANNUAL	ALL	5
506190.4	4320091.49	0.00145	421.37	648.69	1.5	ANNUAL	ALL	5
506192.99	4320110.9	0.00157	422.36	648.69	1.5	ANNUAL	ALL	5
506195.58	4320130.31	0.00168	423.46	648.69	1.5	ANNUAL	ALL	5
506153.23	4320096.45	0.00107	421.24	648.69	1.5	ANNUAL	ALL	5
506155.82	4320115.86	0.00115	422.04	648.69	1.5	ANNUAL	ALL	5
506158.41	4320135.27	0.00123	422.9	648.69	1.5	ANNUAL	ALL	5
506116.06	4320101.41	0.00082	421.39	648.69	1.5	ANNUAL	ALL	5
506118.65	4320120.82	0.00088	421.93	648.69	1.5	ANNUAL	ALL	5
506121.24	4320140.23	0.00093	422.76	648.69	1.5	ANNUAL	ALL	5
506078.89	4320106.37	0.00065	421.62	648.69	1.5	ANNUAL	ALL	5
506081.48	4320125.78	0.00068	422.33	648.69	1.5	ANNUAL	ALL	5
506084.07	4320145.19	0.00072	423.03	648.69	1.5	ANNUAL	ALL	5
506004.54	4320116.29	0.00043	423.4	648.69	1.5	ANNUAL	ALL	5
506007.13	4320135.7	0.00044	424.35	648.69	1.5	ANNUAL	ALL	5
506009.72	4320155.11	0.00045	425.37	648.69	1.5	ANNUAL	ALL	5
505930.2	4320126.21	0.0003	425.31	648.69	1.5	ANNUAL	ALL	5
505932.79	4320145.62	0.0003	426.64	648.69	1.5	ANNUAL	ALL	5
505935.38	4320165.03	0.00031	427.33	648.69	1.5	ANNUAL	ALL	5
506198.66	4320148.44	0.0018	424.61	648.69	1.5	ANNUAL	ALL	5
506161.76	4320155.13	0.00131	423.83	648.69	1.5	ANNUAL	ALL	5
506124.86	4320161.81	0.00099	423.89	648.69	1.5	ANNUAL	ALL	5
506087.96	4320168.5	0.00077	424.15	648.69	1.5	ANNUAL	ALL	5
506014.16	4320181.88	0.00049	425.61	648.69	1.5	ANNUAL	ALL	5
505938.64	4320185.76	0.00033	427.46	648.69	1.5	ANNUAL	ALL	5
506344.82	4320135.08	0.01438	427.59	648.69	1.5	ANNUAL	ALL	5
506326.08	4320134.33	0.01034	425.79	648.69	1.5	ANNUAL	ALL	5
506307.35	4320133.58	0.00757	424.14	648.69	1.5	ANNUAL	ALL	5
506287.95	4320140.61	0.0056	423.08	648.69	1.5	ANNUAL	ALL	5
506269.26	4320139.17	0.00421	422.81	648.69	1.5	ANNUAL	ALL	5
506345.96	4320154.73	0.01403	427.51	648.69	1.5	ANNUAL	ALL	5
506353.06	4320174.9	0.01415	426.9	648.69	1.5	ANNUAL	ALL	5
506329.19	4320163.11	0.01056	426.17	648.69	1.5	ANNUAL	ALL	5
506336.29	4320183.28	0.01082	426.28	648.69	1.5	ANNUAL	ALL	5
506312.42	4320171.49	0.00809	424.99	648.69	1.5	ANNUAL	ALL	5
506308.57	4320151.86	0.00787	424.42	648.69	1.5	ANNUAL	ALL	5
506319.52	4320191.66	0.00841	425.54	648.69	1.5	ANNUAL	ALL	5
506295.65	4320179.87	0.00637	424.38	648.69	1.5	ANNUAL	ALL	5
506291.8	4320160.24	0.00607	423.7	648.69	1.5	ANNUAL	ALL	5
506302.74	4320200.05	0.0066	425.22	648.69	1.5	ANNUAL	ALL	5
506278.87	4320188.26	0.00502	424.35	648.69	1.5	ANNUAL	ALL	5
506275.03	4320168.62	0.00477	423.75	648.69	1.5	ANNUAL	ALL	5
506285.97	4320208.43	0.00527	425.07	648.69	1.5	ANNUAL	ALL	5
506262.1	4320196.64	0.00397	424.97	648.69	1.5	ANNUAL	ALL	5
506258.26	4320177.01	0.00381	424.39	648.69	1.5	ANNUAL	ALL	5
506254.41	4320157.37	0.00353	423.71	648.69	1.5	ANNUAL	ALL	5
506269.2	4320216.81	0.00424	425.66	648.69	1.5	ANNUAL	ALL	5
506245.06	4320203.62	0.00316	426.83	648.69	1.5	ANNUAL	ALL	5
506240.66	4320181.18	0.00298	425.76	648.69	1.5	ANNUAL	ALL	5
506236.26	4320158.74	0.00279	424.49	648.69	1.5	ANNUAL	ALL	5
506252.43	4320225.19	0.00343	426.93	648.69	1.5	ANNUAL	ALL	5
506211.57	4320220.69	0.00219	428.51	648.69	1.5	ANNUAL	ALL	5
506207.3	4320198.88	0.00206	428.06	648.69	1.5	ANNUAL	ALL	5
506203.03	4320177.07	0.00193	426.92	648.69	1.5	ANNUAL	ALL	5

	506218.88	4320241.96	0.00238	428.34	648.69	1.5	ANNUAL	ALL	5
	506178.07	4320237.66	0.00166	427.09	648.69	1.5	ANNUAL	ALL	5
	506173.87	4320216.24	0.00158	426.2	648.69	1.5	ANNUAL	ALL	5
	506169.68	4320194.82	0.00149	425.28	648.69	1.5	ANNUAL	ALL	5
	506165.48	4320173.4	0.0014	424.43	648.69	1.5	ANNUAL	ALL	5
	506185.34	4320258.72	0.00176	428.2	648.69	1.5	ANNUAL	ALL	5
	506144.55	4320254.56	0.00127	427.51	648.69	1.5	ANNUAL	ALL	5
	506140.41	4320233.41	0.0012	427.23	648.69	1.5	ANNUAL	ALL	5
	506136.27	4320212.27	0.00114	426.66	648.69	1.5	ANNUAL	ALL	5
	506132.12	4320191.13	0.00108	425.65	648.69	1.5	ANNUAL	ALL	5
	506151.8	4320275.48	0.00135	428.15	648.69	1.5	ANNUAL	ALL	5
	506110.88	4320270.67	0.001	427.89	648.69	1.5	ANNUAL	ALL	5
	506106.48	4320248.24	0.00094	428.89	648.69	1.5	ANNUAL	ALL	5
	506102.09	4320225.8	0.00089	427.76	648.69	1.5	ANNUAL	ALL	5
	506097.69	4320203.36	0.00085	426.38	648.69	1.5	ANNUAL	ALL	5
	506118.25	4320292.25	0.00108	426.54	648.69	1.5	ANNUAL	ALL	5
	506043.85	4320304.51	0.00067	427.6	648.69	1.5	ANNUAL	ALL	5
	506039.58	4320282.7	0.00063	429.19	648.69	1.5	ANNUAL	ALL	5
	506035.3	4320260.89	0.00061	429	648.69	1.5	ANNUAL	ALL	5
	506031.03	4320239.07	0.00058	428.06	648.69	1.5	ANNUAL	ALL	5
	506026.76	4320217.26	0.00056	426.61	648.69	1.5	ANNUAL	ALL	5
	506051.16	4320325.78	0.00073	425.35	648.69	1.5	ANNUAL	ALL	5
	505976.7	4320337.73	0.0005	422.9	648.69	1.5	ANNUAL	ALL	5
	505972.31	4320315.29	0.00048	423.44	648.69	1.5	ANNUAL	ALL	5
	505967.91	4320292.86	0.00046	423.75	648.69	1.5	ANNUAL	ALL	5
	505963.52	4320270.42	0.00044	424.11	648.69	1.5	ANNUAL	ALL	5
	505959.12	4320247.98	0.00041	424.65	648.69	1.5	ANNUAL	ALL	5
	505954.72	4320225.54	0.00038	426.86	648.69	1.5	ANNUAL	ALL	5
	505950.33	4320203.11	0.00036	427.57	648.69	1.5	ANNUAL	ALL	5
	505984.07	4320359.3	0.00053	422.38	648.69	1.5	ANNUAL	ALL	5
	506348.76	4320208.51	0.01063	424.93	648.69	1.5	ANNUAL	ALL	5
	506363.71	4320238.99	0.00886	424.4	648.69	1.5	ANNUAL	ALL	5
	506331.92	4320216.76	0.00857	425.08	648.69	1.5	ANNUAL	ALL	5
	506346.88	4320247.24	0.00771	424.2	648.69	1.5	ANNUAL	ALL	5
	506315.09	4320225.02	0.0069	425.46	648.69	1.5	ANNUAL	ALL	5
	506330.04	4320255.5	0.00652	425.03	648.69	1.5	ANNUAL	ALL	5
	506298.26	4320233.28	0.00562	425.48	648.69	1.5	ANNUAL	ALL	5
	506313.21	4320263.76	0.0055	425.96	648.69	1.5	ANNUAL	ALL	5
	506281.42	4320241.54	0.0046	425.88	648.69	1.5	ANNUAL	ALL	5
	506296.38	4320272.02	0.00463	426.85	648.69	1.5	ANNUAL	ALL	5
	506264.59	4320249.8	0.00379	426.66	648.69	1.5	ANNUAL	ALL	5
	506279.54	4320280.28	0.00392	427.54	648.69	1.5	ANNUAL	ALL	5
	506230.92	4320266.31	0.00265	428.02	648.69	1.5	ANNUAL	ALL	5
	506197.26	4320282.83	0.00194	428.83	648.69	1.5	ANNUAL	ALL	5
	506212.21	4320313.31	0.00212	429.45	648.69	1.5	ANNUAL	ALL	5
	506163.59	4320299.35	0.0015	427.5	648.69	1.5	ANNUAL	ALL	5
	506178.54	4320329.83	0.00165	428.05	648.69	1.5	ANNUAL	ALL	5
	506129.92	4320315.86	0.00121	425.29	648.69	1.5	ANNUAL	ALL	5
	506144.88	4320346.34	0.00133	425.36	648.69	1.5	ANNUAL	ALL	5
	506062.59	4320348.9	0.00081	423.37	648.69	1.5	ANNUAL	ALL	5
	506077.54	4320379.38	0.00091	422.06	648.69	1.5	ANNUAL	ALL	5
	505995.26	4320381.93	0.00057	421.83	648.69	1.5	ANNUAL	ALL	5
	506010.21	4320412.41	0.00062	423.68	648.69	1.5	ANNUAL	ALL	5
	506357.39	4320269.94	0.00646	425.73	648.69	1.5	ANNUAL	ALL	5
	506340.38	4320277.83	0.00574	426.48	648.69	1.5	ANNUAL	ALL	5
	506221.33	4320333.09	0.00216	430.84	648.69	1.5	ANNUAL	ALL	5
	506187.32	4320348.88	0.00169	429.96	648.69	1.5	ANNUAL	ALL	5
	506153.31	4320364.67	0.00137	427.11	648.69	1.5	ANNUAL	ALL	5
	506085.28	4320396.25	0.00095	421.55	648.69	1.5	ANNUAL	ALL	5
	506229.53	4320397.56	0.00193	430.48	648.69	1.5	ANNUAL	ALL	5
	506208.43	4320373.22	0.00183	431.08	648.69	1.5	ANNUAL	ALL	5
	506309.38	4320504.39	0.00145	427.01	648.69	1.5	ANNUAL	ALL	5
	506277.69	4320494.69	0.00153	427.22	648.69	1.5	ANNUAL	ALL	5
	506250.99	4320477.33	0.00158	427.94	648.69	1.5	ANNUAL	ALL	5
	506229.29	4320452.29	0.00167	425.86	648.69	1.5	ANNUAL	ALL	5
	506207.58	4320427.26	0.00169	424.29	648.69	1.5	ANNUAL	ALL	5
	506185.87	4320402.22	0.00158	427.11	648.69	1.5	ANNUAL	ALL	5
	506210.52	4320540.68	0.0012	419.47	648.69	1.5	ANNUAL	ALL	5
	506189.65	4320516.61	0.00124	419.93	648.69	1.5	ANNUAL	ALL	5
	506168.77	4320492.54	0.00124	420.13	648.69	1.5	ANNUAL	ALL	5
	506147.9	4320468.46	0.00121	419.79	648.69	1.5	ANNUAL	ALL	5
	506127.02	4320444.39	0.00115	419.63	648.69	1.5	ANNUAL	ALL	5
	506106.15	4320420.32	0.00106	420.23	648.69	1.5	ANNUAL	ALL	5
	506147.5	4320578.03	0.00094	417.18	648.69	1.5	ANNUAL	ALL	5
	506125.79	4320553	0.00094	419.54	648.69	1.5	ANNUAL	ALL	5
	506104.08	4320527.96	0.00092	419.76	648.69	1.5	ANNUAL	ALL	5
	506082.37	4320502.93	0.00087	420.01	648.69	1.5	ANNUAL	ALL	5
	506060.67	4320477.89	0.0008	421.27	648.69	1.5	ANNUAL	ALL	5
	506038.96	4320452.86	0.00072	423.55	648.69	1.5	ANNUAL	ALL	5
**	CONCUNIT ug/	m^3							
**	DEPUNIT g/m^	2							

Health Risk Assessment

Construction Health Risk Assessment

Phase 3 – Mitigated

Emissions and Concentrations

Lakeport Shopping Center Project

Phase 3

Estimation of Annual Onsite Construction Emissions

Start of Construction	10/3/2023		
End of Construction	11/25/2024		**Total**
Number of Days	419		419
Number of Hours	10,056		10,056
Number of Years	1.15		1.15
Size of the construction area source:	**32,575.9**	**sq-meters**	

CalEEMod Run	Year	On-site Construction Activity	Tier 4 Mitigated On-site DPM (tons)
Phase 3	2023	On-site Site Preparation	0.00031
Phase 3	2023	On-site Grading	0.00048
Phase 3	2023	On-site Paving	0.00037
Phase 3	2023	On-site Building Construction	0.00065
Phase 3	2024	On-site Building Construction	0.00922
Phase 3	2024	On-site Architectural Coating	0.00004

Total Unmitigated DPM (On-site)	1.107E-02	tons
Average Emission*	1.005E+04	grams
	2.777E-04	grams/sec
	8.523E-09	grams/m2/sec

*Size of the construction area source accounted for in AERMOD.

Phase 3 - Area 1

Size of the construction area source:		**14,699.3**	**sq-meters**
	Portion of Phase 3	**0.45**	

Year	**On-site Construction Activity**	**Unmitigated On-site DPM (tons)**
2023	On-site Site Preparation	0.00014
2023	On-site Grading	0.00022
2023	On-site Paving	0.00017
2023	On-site Building Construction	0.00029
2024	On-site Building Construction	0.00416
2024	On-site Architectural Coating	0.00002

Total Unmitigated DPM (On-site)	4.995E-03	tons
Average Emission*	4.536E+03	grams
	1.253E-04	grams/sec
	8.523E-09	grams/m2/sec

*Size of the construction area source accounted for in AERMOD.

Phase 3 - Area 2

Size of the construction area source:		**17,876.6**	**sq-meters**
	Portion of Phase 3	**0.55**	

Year	**On-site Construction Activity**	**Unmitigated On-site DPM (tons)**
2023	On-site Site Preparation	0.00017
2023	On-site Grading	0.00026
2023	On-site Paving	0.00020
2023	On-site Building Construction	0.00036
2024	On-site Building Construction	0.00506
2024	On-site Architectural Coating	0.00002

Total Unmitigated DPM (On-site)	6.075E-03	tons
Average Emission*	5.516E+03	grams
	1.524E-04	grams/sec
	8.523E-09	grams/m2/sec

*Size of the construction area source accounted for in AERMOD.

Lakeport Shopping Center Project

Phase 3

Estimation of Annual Offsite Construction DPM Emissions (Unmitigated - No Change in Mitigated Construction Scenario)

Start of Construction		10/3/2023	
End of Construction		11/25/2024	**Total**
Number of Days		419	419
Number of Hours		10,056	10056

	Phase 3 (2023) Site Preparation	Phase 3 (2023) Grading	Phase 3 (2023) Paving	Phase 3 (2023) Building Construction	Phase 3 (2024) Building Construction	Phase 3 (2024) Architectural Coating
Haul Truck	0.00001	0.00001	0.00001	0.00000	0.00001	0.00000
Vendor Truck	0.00000	0.00000	0.00001	0.00016	0.00231	0.00000
Worker	0.00001	0.00001	0.00001	0.00006	0.00087	0.00002
Total	0.00002	0.00002	0.00003	0.00022	0.00319	0.00002

	Haul Truck (tons)	**Vendor Truck (tons)**	**Worker (tons)**	**Total (tons)**
Total DPM	4.000E-05	2.480E-03	9.800E-04	3.500E-03
Average Emissions				
Grams	3.632E+01	2.252E+03	8.898E+02	
Grams/sec	1.003E-06	6.220E-05	2.458E-05	
Default Distance*	20	7.3	10.8	

*Default Vehicle Travel Distance in CalEEMod

Vehicle Travel Distances in the Construction HRA (miles)			
Road Segment 1 (mi)	0.43	0.43	0.43
Road Segment 2 (mi)	0.45	0.45	0.45
Road Segment 3 (mi)	0.53	0.53	0.53
Road Segment 4 (mi)	0.54	0.54	0.54
Trip Distribution (percent)			
Road Segment 1	25.0%	25.0%	25.0%
Road Segment 2	25.0%	25.0%	25.0%
Road Segment 3	25.0%	25.0%	25.0%
Road Segment 4	25.0%	25.0%	25.0%

Total Average Offsite Vehicle Emissions Along Travel Distance (g/sec)				**Total**
Road Segment 1	5.334E-09	9.060E-07	2.420E-07	1.153E-06
Road Segment 2	5.606E-09	9.522E-07	2.543E-07	1.212E-06
Road Segment 3	6.670E-09	1.133E-06	3.026E-07	1.442E-06
Road Segment 4	6.774E-09	1.151E-06	3.073E-07	1.465E-06

Maximum DPM (ug/m3)	UTM X	UTM Y
1.1490E-02	506616.29	4320010.20

* AERMOD (19191): G:\LSC_HRA\P3 Mitigated\P3Mitigated.isc 10/11/2021
* AERMET (14134): 11:34:09 AM
* MODELING OPTIONS USED: Reg DFAULT CONCELEV FLGPOL URBAN
* PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 652 RECEPTORS.
* FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

* X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM YRS	NET ID
506703.91	4320437.76	0.0003	420.88	432.12	1.5	ANNUAL	ALL	5	
506676.87	4320495.35	0.0003	423.66	431.49	1.5	ANNUAL	ALL	5	
506701.34	4320484.15	0.00025	424.59	431.49	1.5	ANNUAL	ALL	5	
506724.35	4320469.2	0.00022	423.58	432.12	1.5	ANNUAL	ALL	5	
506717.54	4320558.3	0.00015	428.24	432.02	1.5	ANNUAL	ALL	5	
506691.19	4320565.86	0.0002	420.45	432.12	1.5	ANNUAL	ALL	5	
506742.21	4320547.04	0.00013	431.7	431.7	1.5	ANNUAL	ALL	5	
506765.22	4320532.08	0.00011	432.05	432.05	1.5	ANNUAL	ALL	5	
506718.35	4320369.19	0.00036	418.53	418.53	1.5	ANNUAL	ALL	5	
506747.68	4320355.39	0.0003	418.67	445.92	1.5	ANNUAL	ALL	5	
506704.99	4320416.93	0.00032	420.06	430.6	1.5	ANNUAL	ALL	5	
506734.32	4320403.12	0.00027	418.93	432.12	1.5	ANNUAL	ALL	5	
506763.65	4320389.32	0.00023	418.46	445.92	1.5	ANNUAL	ALL	5	
506720.96	4320450.86	0.00024	421.47	432.12	1.5	ANNUAL	ALL	5	
506750.29	4320437.05	0.00021	419.57	432.12	1.5	ANNUAL	ALL	5	
506779.62	4320423.25	0.00018	418.64	445.92	1.5	ANNUAL	ALL	5	
506721.34	4320488.78	0.0002	425.73	432.12	1.5	ANNUAL	ALL	5	
506751.59	4320477.88	0.00016	426.13	432.12	1.5	ANNUAL	ALL	5	
506768.87	4320552.65	0.0001	431.71	432.04	1.5	ANNUAL	ALL	5	
506757.91	4320246.35	0.00052	419.21	648.69	1.5	ANNUAL	ALL	5	
506776.07	4320220.81	0.00052	419.9	445.92	1.5	ANNUAL	ALL	5	
506774.97	4320254.45	0.00041	420.15	445.92	1.5	ANNUAL	ALL	5	
506754.47	4320274.47	0.00044	419.27	445.92	1.5	ANNUAL	ALL	5	
506755.14	4320298.58	0.00038	418.81	445.92	1.5	ANNUAL	ALL	5	
507069.29	4320032.11	0.00025	411.74	445.92	1.5	ANNUAL	ALL	5	
507144.29	4320032.11	0.00017	408.5	445.92	1.5	ANNUAL	ALL	5	
507136.82	4320049.44	0.00017	410.64	445.92	1.5	ANNUAL	ALL	5	
507129.35	4320066.77	0.00016	412.6	445.92	1.5	ANNUAL	ALL	5	
507121.88	4320084.11	0.00015	415.74	445.92	1.5	ANNUAL	ALL	5	
507114.41	4320101.44	0.00015	418.21	445.92	1.5	ANNUAL	ALL	5	
507106.94	4320118.77	0.00014	419.88	445.92	1.5	ANNUAL	ALL	5	
507099.47	4320136.11	0.00014	421.37	445.92	1.5	ANNUAL	ALL	5	
507092	4320153.44	0.00013	423.61	445.92	1.5	ANNUAL	ALL	5	
507084.53	4320170.77	0.00012	425.39	445.92	1.5	ANNUAL	ALL	5	
507077.06	4320188.11	0.00011	427.1	445.92	1.5	ANNUAL	ALL	5	
507069.59	4320205.44	0.00011	429.72	445.92	1.5	ANNUAL	ALL	5	
507219.29	4320032.11	0.00012	407.19	445.92	1.5	ANNUAL	ALL	5	
507211.82	4320049.45	0.00012	407.27	445.92	1.5	ANNUAL	ALL	5	
507204.34	4320066.79	0.00012	407.4	445.92	1.5	ANNUAL	ALL	5	
507196.87	4320084.13	0.00011	408.03	445.92	1.5	ANNUAL	ALL	5	
507189.39	4320101.47	0.00011	409.32	445.92	1.5	ANNUAL	ALL	5	
507181.92	4320118.82	0.00011	410.51	445.92	1.5	ANNUAL	ALL	5	
507174.45	4320136.16	0.0001	411.8	445.92	1.5	ANNUAL	ALL	5	
507166.97	4320153.5	0.0001	413.4	445.92	1.5	ANNUAL	ALL	5	
507159.5	4320170.84	0.00009	414.94	445.92	1.5	ANNUAL	ALL	5	
507152.02	4320188.18	0.00009	416.48	445.92	1.5	ANNUAL	ALL	5	
507144.55	4320205.52	0.00009	417.42	445.92	1.5	ANNUAL	ALL	5	
506837.97	4319876.1	0.00142	411.74	648.69	1.5	ANNUAL	ALL	5	
506712.12	4319999.57	0.00805	414.57	648.69	1.5	ANNUAL	ALL	5	
506715.28	4319990.41	0.00703	414.55	648.69	1.5	ANNUAL	ALL	5	
506716.15	4319971.68	0.00555	414.55	648.69	1.5	ANNUAL	ALL	5	
506717.01	4319952.95	0.0045	414.63	648.69	1.5	ANNUAL	ALL	5	
506717.88	4319934.22	0.00372	414.72	648.69	1.5	ANNUAL	ALL	5	
506718.74	4319915.49	0.00311	414.8	648.69	1.5	ANNUAL	ALL	5	
506790.5	4319906.09	0.00216	413.43	648.69	1.5	ANNUAL	ALL	5	
506756.99	4319898.49	0.00239	414.02	648.69	1.5	ANNUAL	ALL	5	
506738.3	4319897.62	0.00253	414.15	648.69	1.5	ANNUAL	ALL	5	
506719.61	4319896.76	0.00263	414.33	648.69	1.5	ANNUAL	ALL	5	
506810.41	4319896.04	0.00181	412.28	648.69	1.5	ANNUAL	ALL	5	
506776.55	4319880.62	0.00195	413.08	648.69	1.5	ANNUAL	ALL	5	
506757.86	4319879.76	0.00208	413.22	648.69	1.5	ANNUAL	ALL	5	
506739.16	4319878.89	0.00217	413.28	648.69	1.5	ANNUAL	ALL	5	
506720.47	4319878.03	0.00225	413.49	648.69	1.5	ANNUAL	ALL	5	
506794.15	4319850.39	0.00152	411.86	648.69	1.5	ANNUAL	ALL	5	
506825.89	4319864.84	0.00143	411.67	648.69	1.5	ANNUAL	ALL	5	
506759.59	4319842.3	0.0016	412.09	648.69	1.5	ANNUAL	ALL	5	
506740.89	4319841.43	0.00166	412.29	648.69	1.5	ANNUAL	ALL	5	
506722.2	4319840.57	0.00169	412.5	648.69	1.5	ANNUAL	ALL	5	
506796.94	4319813.41	0.00124	411.86	648.69	1.5	ANNUAL	ALL	5	

506813.87	4319821.12	0.00122	411.64	648.69	1.5	ANNUAL	ALL	5
506830.79	4319828.82	0.00119	411.39	648.69	1.5	ANNUAL	ALL	5
506847.72	4319836.53	0.00115	411.17	648.69	1.5	ANNUAL	ALL	5
506780.01	4319805.7	0.00124	411.9	648.69	1.5	ANNUAL	ALL	5
506761.32	4319804.84	0.00128	412.02	648.69	1.5	ANNUAL	ALL	5
506742.62	4319803.97	0.00131	412.19	648.69	1.5	ANNUAL	ALL	5
506723.93	4319803.11	0.00133	412.29	648.69	1.5	ANNUAL	ALL	5
506797.9	4319775.6	0.00102	411.56	648.69	1.5	ANNUAL	ALL	5
506830.21	4319790.31	0.001	411.21	648.69	1.5	ANNUAL	ALL	5
506862.53	4319805.03	0.00096	410.87	648.69	1.5	ANNUAL	ALL	5
506966.08	4319865.66	0.00067	410.16	648.69	1.5	ANNUAL	ALL	5
506763.05	4319767.38	0.00104	411.79	648.69	1.5	ANNUAL	ALL	5
506744.35	4319766.51	0.00106	412.07	648.69	1.5	ANNUAL	ALL	5
506725.66	4319765.65	0.00106	412.15	648.69	1.5	ANNUAL	ALL	5
506800.4	4319738.49	0.00085	411.43	648.69	1.5	ANNUAL	ALL	5
506817.33	4319746.2	0.00086	411.12	648.69	1.5	ANNUAL	ALL	5
506834.25	4319753.9	0.00085	410.98	648.69	1.5	ANNUAL	ALL	5
506851.18	4319761.61	0.00084	410.81	648.69	1.5	ANNUAL	ALL	5
506868.11	4319769.32	0.00082	410.68	648.69	1.5	ANNUAL	ALL	5
506885.04	4319777.03	0.0008	410.6	648.69	1.5	ANNUAL	ALL	5
506993.52	4319840.54	0.00058	409.87	648.69	1.5	ANNUAL	ALL	5
507000.44	4319857.81	0.00056	409.74	648.69	1.5	ANNUAL	ALL	5
507007.36	4319875.07	0.00054	409.83	648.69	1.5	ANNUAL	ALL	5
507048.87	4319978.66	0.00034	410.72	648.69	1.5	ANNUAL	ALL	5
507055.79	4319995.93	0.00031	410.99	648.69	1.5	ANNUAL	ALL	5
507062.71	4320013.19	0.00028	411.2	445.92	1.5	ANNUAL	ALL	5
506783.47	4319730.78	0.00085	411.72	648.69	1.5	ANNUAL	ALL	5
506764.78	4319729.92	0.00086	411.86	648.69	1.5	ANNUAL	ALL	5
506746.08	4319729.05	0.00087	411.94	648.69	1.5	ANNUAL	ALL	5
506727.39	4319728.19	0.00087	412.1	648.69	1.5	ANNUAL	ALL	5
506803.86	4319663.57	0.00062	411.87	648.69	1.5	ANNUAL	ALL	5
506820.79	4319671.28	0.00063	411.31	648.69	1.5	ANNUAL	ALL	5
506837.71	4319678.98	0.00063	411.4	648.69	1.5	ANNUAL	ALL	5
506854.64	4319686.69	0.00063	411.42	648.69	1.5	ANNUAL	ALL	5
506871.57	4319694.4	0.00062	411.36	648.69	1.5	ANNUAL	ALL	5
506888.5	4319702.11	0.00062	411.07	648.69	1.5	ANNUAL	ALL	5
506905.42	4319709.82	0.0006	410.93	648.69	1.5	ANNUAL	ALL	5
506922.35	4319717.53	0.00059	410.76	648.69	1.5	ANNUAL	ALL	5
507006.99	4319756.07	0.00049	409.92	648.69	1.5	ANNUAL	ALL	5
507023.92	4319763.78	0.00046	409.47	648.69	1.5	ANNUAL	ALL	5
507047.76	4319788.75	0.00043	409.38	648.69	1.5	ANNUAL	ALL	5
507054.68	4319806.01	0.00043	409.45	648.69	1.5	ANNUAL	ALL	5
507061.6	4319823.28	0.00041	409.47	648.69	1.5	ANNUAL	ALL	5
507068.52	4319840.54	0.0004	409.38	648.69	1.5	ANNUAL	ALL	5
507075.44	4319857.81	0.00038	409.19	648.69	1.5	ANNUAL	ALL	5
507082.36	4319875.07	0.00036	408.85	648.69	1.5	ANNUAL	ALL	5
507089.28	4319892.34	0.00034	408.66	648.69	1.5	ANNUAL	ALL	5
507096.2	4319909.6	0.00032	408.51	648.69	1.5	ANNUAL	ALL	5
507103.12	4319926.87	0.00029	408.47	648.69	1.5	ANNUAL	ALL	5
507110.03	4319944.13	0.00027	408.5	648.69	1.5	ANNUAL	ALL	5
507116.95	4319961.4	0.00025	408.54	445.92	1.5	ANNUAL	ALL	5
507123.87	4319978.66	0.00023	408.45	445.92	1.5	ANNUAL	ALL	5
507130.79	4319995.93	0.00021	408.32	445.92	1.5	ANNUAL	ALL	5
507137.71	4320013.19	0.00019	408.43	445.92	1.5	ANNUAL	ALL	5
506786.93	4319655.86	0.00061	412.57	648.69	1.5	ANNUAL	ALL	5
506768.24	4319655	0.00062	412.66	648.69	1.5	ANNUAL	ALL	5
506749.54	4319654.13	0.00062	412.48	648.69	1.5	ANNUAL	ALL	5
506730.85	4319653.27	0.00061	412.96	648.69	1.5	ANNUAL	ALL	5
506807.32	4319588.65	0.00047	421.4	648.69	1.5	ANNUAL	ALL	5
506824.25	4319596.36	0.00048	421.09	648.69	1.5	ANNUAL	ALL	5
506841.17	4319604.06	0.00049	419.7	648.69	1.5	ANNUAL	ALL	5
506858.1	4319611.77	0.00049	417.39	648.69	1.5	ANNUAL	ALL	5
506875.03	4319619.48	0.00049	415.22	648.69	1.5	ANNUAL	ALL	5
506891.96	4319627.19	0.00048	413.58	648.69	1.5	ANNUAL	ALL	5
506908.88	4319634.9	0.00048	412.57	648.69	1.5	ANNUAL	ALL	5
506925.81	4319642.61	0.00047	411.99	648.69	1.5	ANNUAL	ALL	5
506942.74	4319650.31	0.00046	411.32	648.69	1.5	ANNUAL	ALL	5
507044.3	4319696.56	0.00039	409.32	648.69	1.5	ANNUAL	ALL	5
507061.23	4319704.27	0.00037	409.4	648.69	1.5	ANNUAL	ALL	5
507078.16	4319711.98	0.00036	409.48	648.69	1.5	ANNUAL	ALL	5
507102	4319736.95	0.00034	409.58	648.69	1.5	ANNUAL	ALL	5
507108.92	4319754.22	0.00034	409.54	648.69	1.5	ANNUAL	ALL	5
507115.84	4319771.48	0.00033	409.4	648.69	1.5	ANNUAL	ALL	5
507122.76	4319788.75	0.00032	409.31	648.69	1.5	ANNUAL	ALL	5
507129.68	4319806.01	0.00031	409.22	648.69	1.5	ANNUAL	ALL	5
507136.6	4319823.28	0.0003	409.08	648.69	1.5	ANNUAL	ALL	5
507143.52	4319840.54	0.00028	408.99	648.69	1.5	ANNUAL	ALL	5
507150.44	4319857.81	0.00027	408.63	648.69	1.5	ANNUAL	ALL	5
507157.36	4319875.07	0.00025	408.12	648.69	1.5	ANNUAL	ALL	5
507164.28	4319892.34	0.00024	407.93	445.79	1.5	ANNUAL	ALL	5
507171.2	4319909.6	0.00022	407.81	445.88	1.5	ANNUAL	ALL	5
507178.12	4319926.87	0.00021	407.74	445.92	1.5	ANNUAL	ALL	5
507185.03	4319944.13	0.00019	407.67	445.92	1.5	ANNUAL	ALL	5
507191.95	4319961.4	0.00018	407.61	445.92	1.5	ANNUAL	ALL	5

507198.87	4319978.66	0.00016	407.48	445.92	1.5	ANNUAL	ALL	5
507205.79	4319995.93	0.00015	407.32	445.92	1.5	ANNUAL	ALL	5
507212.71	4320013.19	0.00014	407.22	445.92	1.5	ANNUAL	ALL	5
506790.39	4319580.94	0.00046	421.61	648.69	1.5	ANNUAL	ALL	5
506771.7	4319580.08	0.00046	421.65	648.69	1.5	ANNUAL	ALL	5
506753	4319579.21	0.00046	422.3	648.69	1.5	ANNUAL	ALL	5
506734.31	4319578.35	0.00045	424.74	648.69	1.5	ANNUAL	ALL	5
506655.11	4320009.77	0.01081	415.49	648.69	1.5	ANNUAL	ALL	5
506635.7	4320009.98	0.01125	416.51	648.69	1.5	ANNUAL	ALL	5
506616.29	4320010.2	0.01149	417.44	648.69	1.5	ANNUAL	ALL	5
506596.88	4320010.42	0.0113	418.06	648.69	1.5	ANNUAL	ALL	5
506577.47	4320010.63	0.01082	419.08	648.69	1.5	ANNUAL	ALL	5
506558.06	4320010.85	0.00934	421.03	648.69	1.5	ANNUAL	ALL	5
506538.65	4320011.06	0.00686	422.45	648.69	1.5	ANNUAL	ALL	5
506519.24	4320011.28	0.00492	423.11	648.69	1.5	ANNUAL	ALL	5
506499.83	4320011.5	0.00391	423.16	648.69	1.5	ANNUAL	ALL	5
506480.42	4320011.71	0.00328	423.21	648.69	1.5	ANNUAL	ALL	5
506693.72	4319990.59	0.00756	414.73	648.69	1.5	ANNUAL	ALL	5
506674.31	4319990.8	0.00791	414.94	648.69	1.5	ANNUAL	ALL	5
506654.9	4319991.02	0.00818	415.38	648.69	1.5	ANNUAL	ALL	5
506635.49	4319991.24	0.00845	416.6	648.69	1.5	ANNUAL	ALL	5
506616.08	4319991.45	0.00852	417.71	648.69	1.5	ANNUAL	ALL	5
506596.67	4319991.67	0.00818	418.13	648.69	1.5	ANNUAL	ALL	5
506577.26	4319991.88	0.00754	418.76	648.69	1.5	ANNUAL	ALL	5
506557.85	4319992.1	0.00659	420.12	648.69	1.5	ANNUAL	ALL	5
506538.44	4319992.31	0.00519	420.96	648.69	1.5	ANNUAL	ALL	5
506519.03	4319992.53	0.004	421.4	648.69	1.5	ANNUAL	ALL	5
506499.62	4319992.75	0.00321	421.69	648.69	1.5	ANNUAL	ALL	5
506480.21	4319992.96	0.00269	422.04	648.69	1.5	ANNUAL	ALL	5
506693.51	4319971.84	0.00594	414.75	648.69	1.5	ANNUAL	ALL	5
506674.1	4319972.06	0.00618	415.05	648.69	1.5	ANNUAL	ALL	5
506654.69	4319972.27	0.00631	415.46	648.69	1.5	ANNUAL	ALL	5
506635.28	4319972.49	0.00643	416.77	648.69	1.5	ANNUAL	ALL	5
506615.87	4319972.7	0.00635	417.86	648.69	1.5	ANNUAL	ALL	5
506596.46	4319972.92	0.00598	417.99	648.69	1.5	ANNUAL	ALL	5
506577.05	4319973.13	0.00544	418.24	648.69	1.5	ANNUAL	ALL	5
506557.64	4319973.35	0.00476	418.86	648.69	1.5	ANNUAL	ALL	5
506538.23	4319973.57	0.00399	419.45	648.69	1.5	ANNUAL	ALL	5
506518.82	4319973.78	0.00327	420	648.69	1.5	ANNUAL	ALL	5
506499.41	4319974	0.00269	420.53	648.69	1.5	ANNUAL	ALL	5
506480	4319974.21	0.00226	421.06	648.69	1.5	ANNUAL	ALL	5
506693.31	4319953.09	0.00478	414.83	648.69	1.5	ANNUAL	ALL	5
506673.9	4319953.31	0.00494	415.22	648.69	1.5	ANNUAL	ALL	5
506654.49	4319953.52	0.00498	415.5	648.69	1.5	ANNUAL	ALL	5
506635.08	4319953.74	0.00497	416.37	648.69	1.5	ANNUAL	ALL	5
506615.67	4319953.95	0.00483	417.07	648.69	1.5	ANNUAL	ALL	5
506596.26	4319954.17	0.00453	417.2	648.69	1.5	ANNUAL	ALL	5
506576.85	4319954.39	0.00414	417.66	648.69	1.5	ANNUAL	ALL	5
506557.44	4319954.6	0.00367	418.46	648.69	1.5	ANNUAL	ALL	5
506538.03	4319954.82	0.00317	419.14	648.69	1.5	ANNUAL	ALL	5
506518.62	4319955.03	0.00268	419.76	648.69	1.5	ANNUAL	ALL	5
506499.21	4319955.25	0.00226	420.33	648.69	1.5	ANNUAL	ALL	5
506479.8	4319955.46	0.00192	420.76	648.69	1.5	ANNUAL	ALL	5
506693.1	4319934.34	0.00392	414.86	648.69	1.5	ANNUAL	ALL	5
506673.69	4319934.56	0.00401	415.28	648.69	1.5	ANNUAL	ALL	5
506654.28	4319934.77	0.00401	415.39	648.69	1.5	ANNUAL	ALL	5
506634.87	4319934.99	0.00395	415.85	648.69	1.5	ANNUAL	ALL	5
506615.46	4319935.2	0.0038	416.27	648.69	1.5	ANNUAL	ALL	5
506596.05	4319935.42	0.00357	416.53	648.69	1.5	ANNUAL	ALL	5
506576.64	4319935.64	0.00328	417.29	648.69	1.5	ANNUAL	ALL	5
506557.23	4319935.85	0.00295	418.38	648.69	1.5	ANNUAL	ALL	5
506537.82	4319936.07	0.00259	419.17	648.69	1.5	ANNUAL	ALL	5
506518.41	4319936.28	0.00224	419.81	648.69	1.5	ANNUAL	ALL	5
506499	4319936.5	0.00192	420.34	648.69	1.5	ANNUAL	ALL	5
506479.59	4319936.72	0.00165	420.62	648.69	1.5	ANNUAL	ALL	5
506692.89	4319915.59	0.00325	414.75	648.69	1.5	ANNUAL	ALL	5
506673.48	4319915.81	0.0033	414.94	648.69	1.5	ANNUAL	ALL	5
506654.07	4319916.02	0.00328	414.79	648.69	1.5	ANNUAL	ALL	5
506634.66	4319916.24	0.00321	415.3	648.69	1.5	ANNUAL	ALL	5
506615.25	4319916.46	0.00309	416.09	648.69	1.5	ANNUAL	ALL	5
506595.84	4319916.67	0.00292	416.92	648.69	1.5	ANNUAL	ALL	5
506576.43	4319916.89	0.0027	417.89	648.69	1.5	ANNUAL	ALL	5
506557.02	4319917.1	0.00244	418.8	648.69	1.5	ANNUAL	ALL	5
506537.61	4319917.32	0.00217	419.34	648.69	1.5	ANNUAL	ALL	5
506518.2	4319917.54	0.0019	419.67	648.69	1.5	ANNUAL	ALL	5
506498.79	4319917.75	0.00166	419.94	648.69	1.5	ANNUAL	ALL	5
506479.38	4319917.97	0.00144	420.22	648.69	1.5	ANNUAL	ALL	5
506692.68	4319896.84	0.00273	414.39	648.69	1.5	ANNUAL	ALL	5
506673.27	4319897.06	0.00275	414.44	648.69	1.5	ANNUAL	ALL	5
506653.86	4319897.28	0.00273	414.4	648.69	1.5	ANNUAL	ALL	5
506634.45	4319897.49	0.00267	415.09	648.69	1.5	ANNUAL	ALL	5
506615.04	4319897.71	0.00257	416.08	648.69	1.5	ANNUAL	ALL	5
506595.63	4319897.92	0.00243	417.04	648.69	1.5	ANNUAL	ALL	5
506576.22	4319898.14	0.00225	417.93	648.69	1.5	ANNUAL	ALL	5

506556.81	4319898.35	0.00205	418.5	648.69	1.5	ANNUAL	ALL	5
506537.4	4319898.57	0.00184	419.17	648.69	1.5	ANNUAL	ALL	5
506517.99	4319898.79	0.00163	419.46	648.69	1.5	ANNUAL	ALL	5
506498.58	4319899	0.00144	419.37	648.69	1.5	ANNUAL	ALL	5
506479.17	4319899.22	0.00126	419.26	648.69	1.5	ANNUAL	ALL	5
506692.47	4319878.1	0.00232	413.87	648.69	1.5	ANNUAL	ALL	5
506673.06	4319878.31	0.00233	413.83	648.69	1.5	ANNUAL	ALL	5
506653.65	4319878.53	0.00231	414.15	648.69	1.5	ANNUAL	ALL	5
506634.24	4319878.74	0.00226	415.14	648.69	1.5	ANNUAL	ALL	5
506614.83	4319878.96	0.00217	416.18	648.69	1.5	ANNUAL	ALL	5
506595.42	4319879.17	0.00205	416.93	648.69	1.5	ANNUAL	ALL	5
506576.01	4319879.39	0.00191	417.47	648.69	1.5	ANNUAL	ALL	5
506556.6	4319879.61	0.00175	417.52	648.69	1.5	ANNUAL	ALL	5
506537.19	4319879.82	0.00158	418.71	648.69	1.5	ANNUAL	ALL	5
506517.78	4319880.04	0.00142	419.19	648.69	1.5	ANNUAL	ALL	5
506498.37	4319880.25	0.00126	418.6	648.69	1.5	ANNUAL	ALL	5
506478.96	4319880.47	0.00111	417.72	648.69	1.5	ANNUAL	ALL	5
506692.06	4319840.6	0.00173	412.81	648.69	1.5	ANNUAL	ALL	5
506672.65	4319840.81	0.00173	413	648.69	1.5	ANNUAL	ALL	5
506653.24	4319841.03	0.0017	413.28	648.69	1.5	ANNUAL	ALL	5
506633.83	4319841.24	0.00165	413.73	648.69	1.5	ANNUAL	ALL	5
506614.42	4319841.46	0.00159	414.28	648.69	1.5	ANNUAL	ALL	5
506595.01	4319841.68	0.00151	414.87	648.69	1.5	ANNUAL	ALL	5
506575.6	4319841.89	0.00141	415.47	648.69	1.5	ANNUAL	ALL	5
506556.19	4319842.11	0.00131	416.29	648.69	1.5	ANNUAL	ALL	5
506536.78	4319842.32	0.0012	416.45	648.69	1.5	ANNUAL	ALL	5
506517.37	4319842.54	0.00109	416.29	648.69	1.5	ANNUAL	ALL	5
506497.96	4319842.76	0.00099	415.98	648.69	1.5	ANNUAL	ALL	5
506478.55	4319842.97	0.00088	415.58	648.69	1.5	ANNUAL	ALL	5
506691.64	4319803.1	0.00134	412.64	648.69	1.5	ANNUAL	ALL	5
506672.23	4319803.32	0.00133	412.8	648.69	1.5	ANNUAL	ALL	5
506652.82	4319803.53	0.00131	412.98	648.69	1.5	ANNUAL	ALL	5
506633.41	4319803.75	0.00127	413.2	648.69	1.5	ANNUAL	ALL	5
506614	4319803.96	0.00122	413.45	648.69	1.5	ANNUAL	ALL	5
506594.59	4319804.18	0.00116	413.72	648.69	1.5	ANNUAL	ALL	5
506575.18	4319804.39	0.00109	413.97	648.69	1.5	ANNUAL	ALL	5
506555.77	4319804.61	0.00102	413.91	648.69	1.5	ANNUAL	ALL	5
506536.36	4319804.83	0.00094	414.24	648.69	1.5	ANNUAL	ALL	5
506516.95	4319805.04	0.00087	414.51	648.69	1.5	ANNUAL	ALL	5
506497.54	4319805.26	0.00079	414.66	648.69	1.5	ANNUAL	ALL	5
506478.13	4319805.47	0.00072	414.8	648.69	1.5	ANNUAL	ALL	5
506691.22	4319765.6	0.00106	412.45	648.69	1.5	ANNUAL	ALL	5
506671.81	4319765.82	0.00105	412.57	648.69	1.5	ANNUAL	ALL	5
506652.4	4319766.03	0.00103	412.82	648.69	1.5	ANNUAL	ALL	5
506632.99	4319766.25	0.001	413.08	648.69	1.5	ANNUAL	ALL	5
506613.58	4319766.47	0.00096	413.26	648.69	1.5	ANNUAL	ALL	5
506594.17	4319766.68	0.00092	413.39	648.69	1.5	ANNUAL	ALL	5
506574.76	4319766.9	0.00087	413.53	648.69	1.5	ANNUAL	ALL	5
506555.35	4319767.11	0.00082	413.39	648.69	1.5	ANNUAL	ALL	5
506535.94	4319767.33	0.00076	413.88	648.69	1.5	ANNUAL	ALL	5
506516.53	4319767.54	0.00071	414.27	648.69	1.5	ANNUAL	ALL	5
506497.12	4319767.76	0.00066	414.47	648.69	1.5	ANNUAL	ALL	5
506477.71	4319767.98	0.0006	414.66	648.69	1.5	ANNUAL	ALL	5
506690.8	4319728.1	0.00086	412.38	648.69	1.5	ANNUAL	ALL	5
506671.39	4319728.32	0.00085	412.57	648.69	1.5	ANNUAL	ALL	5
506651.98	4319728.54	0.00083	412.91	648.69	1.5	ANNUAL	ALL	5
506632.57	4319728.75	0.00081	413.07	648.69	1.5	ANNUAL	ALL	5
506613.16	4319728.97	0.00078	413.22	648.69	1.5	ANNUAL	ALL	5
506593.75	4319729.18	0.00075	413.33	648.69	1.5	ANNUAL	ALL	5
506574.34	4319729.4	0.00071	413.35	648.69	1.5	ANNUAL	ALL	5
506554.93	4319729.62	0.00067	413.26	648.69	1.5	ANNUAL	ALL	5
506535.52	4319729.83	0.00063	413.83	648.69	1.5	ANNUAL	ALL	5
506516.11	4319730.05	0.00059	414.05	648.69	1.5	ANNUAL	ALL	5
506496.7	4319730.26	0.00055	414.08	648.69	1.5	ANNUAL	ALL	5
506477.29	4319730.48	0.00051	414.2	648.69	1.5	ANNUAL	ALL	5
506709.38	4319652.89	0.00061	413.77	648.69	1.5	ANNUAL	ALL	5
506689.97	4319653.11	0.0006	414.5	648.69	1.5	ANNUAL	ALL	5
506670.56	4319653.32	0.00059	415.36	648.69	1.5	ANNUAL	ALL	5
506651.15	4319653.54	0.00058	416.15	648.69	1.5	ANNUAL	ALL	5
506631.74	4319653.76	0.00056	416.08	648.69	1.5	ANNUAL	ALL	5
506612.33	4319653.97	0.00054	415.34	648.69	1.5	ANNUAL	ALL	5
506592.92	4319654.19	0.00052	414.4	648.69	1.5	ANNUAL	ALL	5
506573.51	4319654.4	0.0005	413.73	648.69	1.5	ANNUAL	ALL	5
506554.1	4319654.62	0.00047	413.58	648.69	1.5	ANNUAL	ALL	5
506534.69	4319654.84	0.00045	414.03	648.69	1.5	ANNUAL	ALL	5
506515.28	4319655.05	0.00043	414.6	648.69	1.5	ANNUAL	ALL	5
506495.87	4319655.27	0.0004	414.84	648.69	1.5	ANNUAL	ALL	5
506476.46	4319655.48	0.00038	414.63	648.69	1.5	ANNUAL	ALL	5
506708.55	4319577.9	0.00043	429.41	648.69	1.5	ANNUAL	ALL	5
506689.14	4319578.11	0.00041	431.33	648.69	1.5	ANNUAL	ALL	5
506669.73	4319578.33	0.0004	430.78	648.69	1.5	ANNUAL	ALL	5
506650.32	4319578.55	0.0004	426.07	648.69	1.5	ANNUAL	ALL	5
506630.91	4319578.76	0.0004	422.68	648.69	1.5	ANNUAL	ALL	5
506611.5	4319578.98	0.00039	420.37	648.69	1.5	ANNUAL	ALL	5

506592.09	4319579.19	0.00038	418.39	648.69	1.5	ANNUAL	ALL	5
506572.68	4319579.41	0.00037	416.44	648.69	1.5	ANNUAL	ALL	5
506553.27	4319579.62	0.00035	415.22	648.69	1.5	ANNUAL	ALL	5
506533.86	4319579.84	0.00034	415.3	648.69	1.5	ANNUAL	ALL	5
506514.45	4319580.06	0.00032	416.28	648.69	1.5	ANNUAL	ALL	5
506495.04	4319580.27	0.00031	417.59	648.69	1.5	ANNUAL	ALL	5
506475.63	4319580.49	0.00029	418.51	648.69	1.5	ANNUAL	ALL	5
506462.36	4320012	0.00283	423.29	648.69	1.5	ANNUAL	ALL	5
506426.41	4320012.58	0.0021	423.56	648.69	1.5	ANNUAL	ALL	5
506390.47	4320013.15	0.00149	423.51	648.69	1.5	ANNUAL	ALL	5
506462.06	4319993.25	0.00233	422.23	648.69	1.5	ANNUAL	ALL	5
506426.11	4319993.83	0.00175	422.7	648.69	1.5	ANNUAL	ALL	5
506390.17	4319994.41	0.00128	422.64	648.69	1.5	ANNUAL	ALL	5
506461.76	4319974.51	0.00195	421.5	648.69	1.5	ANNUAL	ALL	5
506425.81	4319975.08	0.00149	421.96	648.69	1.5	ANNUAL	ALL	5
506389.87	4319975.66	0.00111	421.59	648.69	1.5	ANNUAL	ALL	5
506461.46	4319955.76	0.00167	420.82	648.69	1.5	ANNUAL	ALL	5
506443.48	4319956.05	0.00146	420.66	648.69	1.5	ANNUAL	ALL	5
506407.54	4319956.62	0.00113	420.14	648.69	1.5	ANNUAL	ALL	5
506371.6	4319957.2	0.00085	419.38	648.69	1.5	ANNUAL	ALL	5
506461.15	4319937.01	0.00145	420.1	648.69	1.5	ANNUAL	ALL	5
506425.21	4319937.59	0.00111	418.55	648.69	1.5	ANNUAL	ALL	5
506389.27	4319938.16	0.00086	417.87	648.69	1.5	ANNUAL	ALL	5
506371.3	4319938.45	0.00075	417.56	648.69	1.5	ANNUAL	ALL	5
506460.85	4319918.26	0.00126	418.94	648.69	1.5	ANNUAL	ALL	5
506424.91	4319918.84	0.00098	417.43	648.69	1.5	ANNUAL	ALL	5
506388.97	4319919.42	0.00076	416.96	648.69	1.5	ANNUAL	ALL	5
506460.55	4319899.52	0.00111	417.78	648.69	1.5	ANNUAL	ALL	5
506424.61	4319900.09	0.00087	416.39	648.69	1.5	ANNUAL	ALL	5
506406.64	4319900.38	0.00077	416.22	648.69	1.5	ANNUAL	ALL	5
506370.69	4319900.96	0.00061	416.77	648.69	1.5	ANNUAL	ALL	5
506460.25	4319880.77	0.00098	416.66	648.69	1.5	ANNUAL	ALL	5
506424.31	4319881.34	0.00078	415.5	648.69	1.5	ANNUAL	ALL	5
506388.37	4319881.92	0.00062	416.37	648.69	1.5	ANNUAL	ALL	5
506459.65	4319843.27	0.00079	415.04	648.69	1.5	ANNUAL	ALL	5
506423.71	4319843.85	0.00064	415.85	648.69	1.5	ANNUAL	ALL	5
506387.76	4319844.43	0.00052	416.27	648.69	1.5	ANNUAL	ALL	5
506459.05	4319805.78	0.00065	415.11	648.69	1.5	ANNUAL	ALL	5
506441.08	4319806.07	0.0006	415.31	648.69	1.5	ANNUAL	ALL	5
506405.13	4319806.64	0.00049	415.75	648.69	1.5	ANNUAL	ALL	5
506369.19	4319807.22	0.00041	416.33	648.69	1.5	ANNUAL	ALL	5
506458.45	4319768.28	0.00055	414.77	648.69	1.5	ANNUAL	ALL	5
506422.5	4319768.86	0.00046	415.1	648.69	1.5	ANNUAL	ALL	5
506386.56	4319769.44	0.00039	415.71	648.69	1.5	ANNUAL	ALL	5
506457.85	4319730.79	0.00047	414.13	648.69	1.5	ANNUAL	ALL	5
506421.9	4319731.36	0.0004	414.84	648.69	1.5	ANNUAL	ALL	5
506385.96	4319731.94	0.00034	416.51	648.69	1.5	ANNUAL	ALL	5
506456.64	4319655.8	0.00035	414.6	648.69	1.5	ANNUAL	ALL	5
506438.67	4319656.08	0.00033	414.83	648.69	1.5	ANNUAL	ALL	5
506402.73	4319656.66	0.00029	415.92	648.69	1.5	ANNUAL	ALL	5
506366.78	4319657.24	0.00025	417.46	648.69	1.5	ANNUAL	ALL	5
506455.44	4319580.81	0.00028	418.18	648.69	1.5	ANNUAL	ALL	5
506419.5	4319581.38	0.00025	416.91	648.69	1.5	ANNUAL	ALL	5
506383.55	4319581.96	0.00022	417.14	648.69	1.5	ANNUAL	ALL	5
506339.84	4320036.71	0.00099	423.71	648.69	1.5	ANNUAL	ALL	5
506340.14	4320021.59	0.00091	422.79	648.69	1.5	ANNUAL	ALL	5
506358.5	4320000.97	0.00098	421.95	648.69	1.5	ANNUAL	ALL	5
506337.21	4320053.17	0.00104	424.38	648.69	1.5	ANNUAL	ALL	5
506321.48	4320023.45	0.00076	421.79	648.69	1.5	ANNUAL	ALL	5
506344.49	4319988.5	0.0008	420.6	648.69	1.5	ANNUAL	ALL	5
506318.55	4320055.04	0.00087	422.88	648.69	1.5	ANNUAL	ALL	5
506302.83	4320025.32	0.00064	420.6	648.69	1.5	ANNUAL	ALL	5
506312.13	4319996.65	0.00061	419.37	648.69	1.5	ANNUAL	ALL	5
506330.49	4319976.03	0.00066	419.02	648.69	1.5	ANNUAL	ALL	5
506299.9	4320056.9	0.00073	421.61	648.69	1.5	ANNUAL	ALL	5
506284.17	4320027.18	0.00055	419.66	648.69	1.5	ANNUAL	ALL	5
506293.48	4319998.51	0.00052	418.75	648.69	1.5	ANNUAL	ALL	5
506316.49	4319963.56	0.00055	417.68	648.69	1.5	ANNUAL	ALL	5
506343.89	4319951.01	0.00065	417.77	648.69	1.5	ANNUAL	ALL	5
506281.24	4320058.77	0.00063	420.75	648.69	1.5	ANNUAL	ALL	5
506265.51	4320029.05	0.00048	419.36	648.69	1.5	ANNUAL	ALL	5
506274.82	4320000.38	0.00046	418.52	648.69	1.5	ANNUAL	ALL	5
506284.13	4319971.71	0.00044	418.01	648.69	1.5	ANNUAL	ALL	5
506302.49	4319951.1	0.00046	417.58	648.69	1.5	ANNUAL	ALL	5
506329.89	4319938.54	0.00055	416.68	648.69	1.5	ANNUAL	ALL	5
506357.29	4319925.98	0.00063	417.2	648.69	1.5	ANNUAL	ALL	5
506262.58	4320060.63	0.00055	420.17	648.69	1.5	ANNUAL	ALL	5
506246.86	4320030.91	0.00043	419.28	648.69	1.5	ANNUAL	ALL	5
506256.16	4320002.24	0.0004	418.63	648.69	1.5	ANNUAL	ALL	5
506265.47	4319973.57	0.00038	418.14	648.69	1.5	ANNUAL	ALL	5
506288.48	4319938.63	0.0004	417.9	648.69	1.5	ANNUAL	ALL	5
506315.89	4319926.07	0.00047	417.34	648.69	1.5	ANNUAL	ALL	5
506343.29	4319913.51	0.00054	417.17	648.69	1.5	ANNUAL	ALL	5
506243.93	4320062.5	0.00049	420.36	648.69	1.5	ANNUAL	ALL	5

506234.18	4320014.35	0.00037	418.99	648.69	1.5	ANNUAL	ALL	5
506244.82	4319981.58	0.00034	418.48	648.69	1.5	ANNUAL	ALL	5
506255.46	4319948.82	0.00033	418.36	648.69	1.5	ANNUAL	ALL	5
506292.1	4319918.08	0.00038	417.84	648.69	1.5	ANNUAL	ALL	5
506323.42	4319903.73	0.00045	417.52	648.69	1.5	ANNUAL	ALL	5
506354.73	4319889.38	0.00052	417.07	648.69	1.5	ANNUAL	ALL	5
506223.54	4320047.12	0.0004	419.63	648.69	1.5	ANNUAL	ALL	5
506226.99	4320081.62	0.00047	421.12	648.69	1.5	ANNUAL	ALL	5
506191.4	4320034.92	0.00031	419.62	648.69	1.5	ANNUAL	ALL	5
506201.74	4320003.06	0.00029	419.31	648.69	1.5	ANNUAL	ALL	5
506212.09	4319971.21	0.00027	418.72	648.69	1.5	ANNUAL	ALL	5
506222.43	4319939.35	0.00026	418.64	648.69	1.5	ANNUAL	ALL	5
506248	4319900.52	0.00027	418.19	648.69	1.5	ANNUAL	ALL	5
506278.45	4319886.57	0.00031	417.75	648.69	1.5	ANNUAL	ALL	5
506308.89	4319872.62	0.00036	417.38	648.69	1.5	ANNUAL	ALL	5
506339.34	4319858.67	0.00042	417.1	648.69	1.5	ANNUAL	ALL	5
506187.96	4320068.1	0.00035	420.24	648.69	1.5	ANNUAL	ALL	5
506153.99	4320038.94	0.00026	419.79	648.69	1.5	ANNUAL	ALL	5
506164.15	4320007.66	0.00025	419.69	648.69	1.5	ANNUAL	ALL	5
506174.3	4319976.39	0.00023	419.54	648.69	1.5	ANNUAL	ALL	5
506184.46	4319945.11	0.00022	419.18	648.69	1.5	ANNUAL	ALL	5
506194.61	4319913.83	0.00021	419.36	648.69	1.5	ANNUAL	ALL	5
506219.72	4319875.71	0.00021	418.64	648.69	1.5	ANNUAL	ALL	5
506249.61	4319862.01	0.00024	418.05	648.69	1.5	ANNUAL	ALL	5
506279.51	4319848.31	0.00028	417.82	648.69	1.5	ANNUAL	ALL	5
506309.4	4319834.61	0.00032	417.33	648.69	1.5	ANNUAL	ALL	5
506339.3	4319820.92	0.00036	416.71	648.69	1.5	ANNUAL	ALL	5
506150.64	4320071.83	0.00029	420.17	648.69	1.5	ANNUAL	ALL	5
506116.61	4320042.87	0.00022	420.74	648.69	1.5	ANNUAL	ALL	5
506126.64	4320012	0.00021	420.42	648.69	1.5	ANNUAL	ALL	5
506136.66	4319981.12	0.0002	420.2	648.69	1.5	ANNUAL	ALL	5
506146.69	4319950.24	0.00019	420.18	648.69	1.5	ANNUAL	ALL	5
506156.71	4319919.37	0.00018	420.16	648.69	1.5	ANNUAL	ALL	5
506166.74	4319888.49	0.00017	419.93	648.69	1.5	ANNUAL	ALL	5
506191.52	4319850.86	0.00017	419.41	648.69	1.5	ANNUAL	ALL	5
506221.03	4319837.33	0.00019	418.88	648.69	1.5	ANNUAL	ALL	5
506250.54	4319823.81	0.00022	419.16	648.69	1.5	ANNUAL	ALL	5
506280.05	4319810.29	0.00025	418.95	648.69	1.5	ANNUAL	ALL	5
506309.57	4319796.77	0.00029	418.13	648.69	1.5	ANNUAL	ALL	5
506339.08	4319783.25	0.00032	417.28	648.69	1.5	ANNUAL	ALL	5
506113.33	4320075.56	0.00024	420.9	648.69	1.5	ANNUAL	ALL	5
506079.61	4320045.66	0.00019	421.34	648.69	1.5	ANNUAL	ALL	5
506090.25	4320012.89	0.00018	421.24	648.69	1.5	ANNUAL	ALL	5
506100.88	4319980.13	0.00017	420.91	648.69	1.5	ANNUAL	ALL	5
506111.52	4319947.36	0.00016	421.04	648.69	1.5	ANNUAL	ALL	5
506122.16	4319914.59	0.00015	421.74	648.69	1.5	ANNUAL	ALL	5
506132.8	4319881.83	0.00014	421.21	648.69	1.5	ANNUAL	ALL	5
506143.44	4319849.06	0.00014	420.57	648.69	1.5	ANNUAL	ALL	5
506164.42	4319825.5	0.00014	420.67	648.69	1.5	ANNUAL	ALL	5
506195.73	4319811.15	0.00016	419.84	648.69	1.5	ANNUAL	ALL	5
506227.05	4319796.8	0.00018	420.51	648.69	1.5	ANNUAL	ALL	5
506258.37	4319782.45	0.00021	421.19	648.69	1.5	ANNUAL	ALL	5
506289.69	4319768.1	0.00024	420.94	648.69	1.5	ANNUAL	ALL	5
506321.01	4319753.75	0.00027	419.57	648.69	1.5	ANNUAL	ALL	5
506352.33	4319739.4	0.0003	418.71	648.69	1.5	ANNUAL	ALL	5
506076.01	4320079.29	0.00021	421.14	648.69	1.5	ANNUAL	ALL	5
506004.83	4320053.58	0.00015	422.25	648.69	1.5	ANNUAL	ALL	5
506015.18	4320021.72	0.00014	422.5	648.69	1.5	ANNUAL	ALL	5
506025.52	4319989.86	0.00013	423.75	648.69	1.5	ANNUAL	ALL	5
506035.86	4319958.01	0.00013	424.16	648.69	1.5	ANNUAL	ALL	5
506046.2	4319926.15	0.00012	422.95	648.69	1.5	ANNUAL	ALL	5
506056.55	4319894.3	0.00011	423.07	648.69	1.5	ANNUAL	ALL	5
506066.89	4319862.44	0.00011	424.23	648.69	1.5	ANNUAL	ALL	5
506077.23	4319830.59	0.0001	423.95	648.69	1.5	ANNUAL	ALL	5
506087.57	4319798.73	0.0001	424.2	648.69	1.5	ANNUAL	ALL	5
506107.97	4319775.83	0.0001	424.12	648.69	1.5	ANNUAL	ALL	5
506138.42	4319761.87	0.00011	422.99	648.69	1.5	ANNUAL	ALL	5
506168.87	4319747.92	0.00012	422.83	648.69	1.5	ANNUAL	ALL	5
506199.32	4319733.97	0.00014	425.54	648.69	1.5	ANNUAL	ALL	5
506229.77	4319720.02	0.00015	426.88	648.69	1.5	ANNUAL	ALL	5
506260.21	4319706.07	0.00018	424.36	648.69	1.5	ANNUAL	ALL	5
506290.66	4319692.12	0.0002	421.9	648.69	1.5	ANNUAL	ALL	5
506321.11	4319678.17	0.00022	420.36	648.69	1.5	ANNUAL	ALL	5
506001.39	4320086.75	0.00015	422.72	648.69	1.5	ANNUAL	ALL	5
505930.35	4320060.58	0.00011	423.95	648.69	1.5	ANNUAL	ALL	5
505940.99	4320027.82	0.00011	423.77	648.69	1.5	ANNUAL	ALL	5
505951.63	4319995.05	0.00011	423.87	648.69	1.5	ANNUAL	ALL	5
505962.27	4319962.29	0.0001	425.52	648.69	1.5	ANNUAL	ALL	5
505972.91	4319929.52	0.00009	424.93	648.69	1.5	ANNUAL	ALL	5
505983.54	4319896.75	0.00009	424.47	648.69	1.5	ANNUAL	ALL	5
505994.18	4319863.99	0.00008	425.38	648.69	1.5	ANNUAL	ALL	5
506004.82	4319831.22	0.00008	426.88	648.69	1.5	ANNUAL	ALL	5
506015.46	4319798.46	0.00008	427.78	648.69	1.5	ANNUAL	ALL	5
506026.1	4319765.69	0.00007	428.83	648.69	1.5	ANNUAL	ALL	5

506052.39	4319725.75	0.00007	429.84	648.69	1.5	ANNUAL	ALL	5
506083.71	4319711.4	0.00008	429.18	648.69	1.5	ANNUAL	ALL	5
506115.03	4319697.05	0.00009	426.26	648.69	1.5	ANNUAL	ALL	5
506146.35	4319682.7	0.0001	425.21	648.69	1.5	ANNUAL	ALL	5
506177.67	4319668.35	0.00011	428.25	648.69	1.5	ANNUAL	ALL	5
506208.99	4319654	0.00012	427.47	648.69	1.5	ANNUAL	ALL	5
506240.31	4319639.65	0.00014	424.32	648.69	1.5	ANNUAL	ALL	5
506271.63	4319625.3	0.00016	422.52	648.69	1.5	ANNUAL	ALL	5
506302.94	4319610.95	0.00018	420.73	648.69	1.5	ANNUAL	ALL	5
506334.26	4319596.6	0.00019	418.2	648.69	1.5	ANNUAL	ALL	5
505926.76	4320094.22	0.00012	425.25	648.69	1.5	ANNUAL	ALL	5
506339.08	4320071.65	0.00116	425.14	648.69	1.5	ANNUAL	ALL	5
506341.67	4320091.06	0.00136	425.96	648.69	1.5	ANNUAL	ALL	5
506344.26	4320110.47	0.00162	427.01	648.69	1.5	ANNUAL	ALL	5
506320.49	4320074.13	0.00098	423.68	648.69	1.5	ANNUAL	ALL	5
506323.08	4320093.54	0.00113	424.52	648.69	1.5	ANNUAL	ALL	5
506325.67	4320112.95	0.00134	425.34	648.69	1.5	ANNUAL	ALL	5
506301.91	4320076.61	0.00083	422.37	648.69	1.5	ANNUAL	ALL	5
506304.5	4320096.02	0.00096	423.12	648.69	1.5	ANNUAL	ALL	5
506307.09	4320115.43	0.00113	423.79	648.69	1.5	ANNUAL	ALL	5
506283.32	4320079.09	0.00071	421.47	648.69	1.5	ANNUAL	ALL	5
506285.91	4320098.5	0.00082	422.12	648.69	1.5	ANNUAL	ALL	5
506288.5	4320117.91	0.00095	422.67	648.69	1.5	ANNUAL	ALL	5
506264.74	4320081.57	0.00062	420.86	648.69	1.5	ANNUAL	ALL	5
506267.33	4320100.98	0.00071	421.55	648.69	1.5	ANNUAL	ALL	5
506269.92	4320120.39	0.00081	422.22	648.69	1.5	ANNUAL	ALL	5
506246.15	4320084.05	0.00055	421.08	648.69	1.5	ANNUAL	ALL	5
506248.74	4320103.46	0.00062	421.8	648.69	1.5	ANNUAL	ALL	5
506251.33	4320122.87	0.00069	422.53	648.69	1.5	ANNUAL	ALL	5
506230.16	4320105.94	0.00054	422.24	648.69	1.5	ANNUAL	ALL	5
506232.75	4320125.35	0.0006	423.18	648.69	1.5	ANNUAL	ALL	5
506190.4	4320091.49	0.00039	421.37	648.69	1.5	ANNUAL	ALL	5
506192.99	4320110.9	0.00043	422.36	648.69	1.5	ANNUAL	ALL	5
506195.58	4320130.31	0.00047	423.46	648.69	1.5	ANNUAL	ALL	5
506153.23	4320096.45	0.00032	421.24	648.69	1.5	ANNUAL	ALL	5
506155.82	4320115.86	0.00035	422.04	648.69	1.5	ANNUAL	ALL	5
506158.41	4320135.27	0.00037	422.9	648.69	1.5	ANNUAL	ALL	5
506116.06	4320101.41	0.00027	421.39	648.69	1.5	ANNUAL	ALL	5
506118.65	4320120.82	0.00028	421.93	648.69	1.5	ANNUAL	ALL	5
506121.24	4320140.23	0.0003	422.76	648.69	1.5	ANNUAL	ALL	5
506078.89	4320106.37	0.00022	421.62	648.69	1.5	ANNUAL	ALL	5
506081.48	4320125.78	0.00024	422.33	648.69	1.5	ANNUAL	ALL	5
506084.07	4320145.19	0.00025	423.03	648.69	1.5	ANNUAL	ALL	5
506004.54	4320116.29	0.00017	423.4	648.69	1.5	ANNUAL	ALL	5
506007.13	4320135.7	0.00017	424.35	648.69	1.5	ANNUAL	ALL	5
506009.72	4320155.11	0.00018	425.37	648.69	1.5	ANNUAL	ALL	5
505930.2	4320126.21	0.00012	425.31	648.69	1.5	ANNUAL	ALL	5
505932.79	4320145.62	0.00013	426.64	648.69	1.5	ANNUAL	ALL	5
505935.38	4320165.03	0.00013	427.33	648.69	1.5	ANNUAL	ALL	5
506198.66	4320148.44	0.0005	424.61	648.69	1.5	ANNUAL	ALL	5
506161.76	4320155.13	0.0004	423.83	648.69	1.5	ANNUAL	ALL	5
506124.86	4320161.81	0.00033	423.89	648.69	1.5	ANNUAL	ALL	5
506087.96	4320168.5	0.00027	424.15	648.69	1.5	ANNUAL	ALL	5
506014.16	4320181.88	0.00019	425.61	648.69	1.5	ANNUAL	ALL	5
505938.64	4320185.76	0.00014	427.46	648.69	1.5	ANNUAL	ALL	5
506344.82	4320135.08	0.00211	427.59	648.69	1.5	ANNUAL	ALL	5
506326.08	4320134.33	0.00161	425.79	648.69	1.5	ANNUAL	ALL	5
506307.35	4320133.58	0.00129	424.14	648.69	1.5	ANNUAL	ALL	5
506287.95	4320140.61	0.00109	423.08	648.69	1.5	ANNUAL	ALL	5
506269.26	4320139.17	0.00089	422.81	648.69	1.5	ANNUAL	ALL	5
506345.96	4320154.73	0.0027	427.51	648.69	1.5	ANNUAL	ALL	5
506353.06	4320174.9	0.00386	426.9	648.69	1.5	ANNUAL	ALL	5
506329.19	4320163.11	0.00216	426.17	648.69	1.5	ANNUAL	ALL	5
506336.29	4320183.28	0.00283	426.28	648.69	1.5	ANNUAL	ALL	5
506312.42	4320171.49	0.00177	424.99	648.69	1.5	ANNUAL	ALL	5
506308.57	4320151.86	0.00149	424.42	648.69	1.5	ANNUAL	ALL	5
506319.52	4320191.66	0.0022	425.54	648.69	1.5	ANNUAL	ALL	5
506295.65	4320179.87	0.00148	424.38	648.69	1.5	ANNUAL	ALL	5
506291.8	4320160.24	0.00128	423.7	648.69	1.5	ANNUAL	ALL	5
506302.74	4320200.05	0.00176	425.22	648.69	1.5	ANNUAL	ALL	5
506278.87	4320188.26	0.00124	424.35	648.69	1.5	ANNUAL	ALL	5
506275.03	4320168.62	0.00109	423.75	648.69	1.5	ANNUAL	ALL	5
506285.97	4320208.43	0.00144	425.07	648.69	1.5	ANNUAL	ALL	5
506262.1	4320196.64	0.00104	424.97	648.69	1.5	ANNUAL	ALL	5
506258.26	4320177.01	0.00094	424.39	648.69	1.5	ANNUAL	ALL	5
506254.41	4320157.37	0.00084	423.71	648.69	1.5	ANNUAL	ALL	5
506269.2	4320216.81	0.0012	425.66	648.69	1.5	ANNUAL	ALL	5
506245.06	4320203.62	0.00087	426.83	648.69	1.5	ANNUAL	ALL	5
506240.66	4320181.18	0.00079	425.76	648.69	1.5	ANNUAL	ALL	5
506236.26	4320158.74	0.0007	424.49	648.69	1.5	ANNUAL	ALL	5
506252.43	4320225.19	0.001	426.93	648.69	1.5	ANNUAL	ALL	5
506211.57	4320220.69	0.00066	428.51	648.69	1.5	ANNUAL	ALL	5
506207.3	4320198.88	0.0006	428.06	648.69	1.5	ANNUAL	ALL	5
506203.03	4320177.07	0.00055	426.92	648.69	1.5	ANNUAL	ALL	5

506218.88	4320241.96	0.00074	428.34	648.69	1.5	ANNUAL	ALL	5
506178.07	4320237.66	0.00054	427.09	648.69	1.5	ANNUAL	ALL	5
506173.87	4320216.24	0.0005	426.2	648.69	1.5	ANNUAL	ALL	5
506169.68	4320194.82	0.00046	425.28	648.69	1.5	ANNUAL	ALL	5
506165.48	4320173.4	0.00043	424.43	648.69	1.5	ANNUAL	ALL	5
506185.34	4320258.72	0.00058	428.2	648.69	1.5	ANNUAL	ALL	5
506144.55	4320254.56	0.00044	427.51	648.69	1.5	ANNUAL	ALL	5
506140.41	4320233.41	0.00041	427.23	648.69	1.5	ANNUAL	ALL	5
506136.27	4320212.27	0.00038	426.66	648.69	1.5	ANNUAL	ALL	5
506132.12	4320191.13	0.00036	425.65	648.69	1.5	ANNUAL	ALL	5
506151.8	4320275.48	0.00047	428.15	648.69	1.5	ANNUAL	ALL	5
506110.88	4320270.67	0.00036	427.89	648.69	1.5	ANNUAL	ALL	5
506106.48	4320248.24	0.00033	428.89	648.69	1.5	ANNUAL	ALL	5
506102.09	4320225.8	0.00032	427.76	648.69	1.5	ANNUAL	ALL	5
506097.69	4320203.36	0.0003	426.38	648.69	1.5	ANNUAL	ALL	5
506118.25	4320292.25	0.00039	426.54	648.69	1.5	ANNUAL	ALL	5
506043.85	4320304.51	0.00026	427.6	648.69	1.5	ANNUAL	ALL	5
506039.58	4320282.7	0.00024	429.19	648.69	1.5	ANNUAL	ALL	5
506035.3	4320260.89	0.00023	429	648.69	1.5	ANNUAL	ALL	5
506031.03	4320239.07	0.00022	428.06	648.69	1.5	ANNUAL	ALL	5
506026.76	4320217.26	0.00021	426.61	648.69	1.5	ANNUAL	ALL	5
506051.16	4320325.78	0.00028	425.35	648.69	1.5	ANNUAL	ALL	5
505976.7	4320337.73	0.00021	422.9	648.69	1.5	ANNUAL	ALL	5
505972.31	4320315.29	0.0002	423.44	648.69	1.5	ANNUAL	ALL	5
505967.91	4320292.86	0.00019	423.75	648.69	1.5	ANNUAL	ALL	5
505963.52	4320270.42	0.00018	424.11	648.69	1.5	ANNUAL	ALL	5
505959.12	4320247.98	0.00017	424.65	648.69	1.5	ANNUAL	ALL	5
505954.72	4320225.54	0.00016	426.86	648.69	1.5	ANNUAL	ALL	5
505950.33	4320203.11	0.00015	427.57	648.69	1.5	ANNUAL	ALL	5
505984.07	4320359.3	0.00022	422.38	648.69	1.5	ANNUAL	ALL	5
506348.76	4320208.51	0.00409	424.93	648.69	1.5	ANNUAL	ALL	5
506363.71	4320238.99	0.00523	424.4	648.69	1.5	ANNUAL	ALL	5
506331.92	4320216.76	0.00299	425.08	648.69	1.5	ANNUAL	ALL	5
506346.88	4320247.24	0.00388	424.2	648.69	1.5	ANNUAL	ALL	5
506315.09	4320225.02	0.00228	425.46	648.69	1.5	ANNUAL	ALL	5
506330.04	4320255.5	0.00292	425.03	648.69	1.5	ANNUAL	ALL	5
506298.26	4320233.28	0.00181	425.48	648.69	1.5	ANNUAL	ALL	5
506313.21	4320263.76	0.00227	425.96	648.69	1.5	ANNUAL	ALL	5
506281.42	4320241.54	0.00147	425.88	648.69	1.5	ANNUAL	ALL	5
506296.38	4320272.02	0.00181	426.85	648.69	1.5	ANNUAL	ALL	5
506264.59	4320249.8	0.00122	426.66	648.69	1.5	ANNUAL	ALL	5
506279.54	4320280.28	0.00148	427.54	648.69	1.5	ANNUAL	ALL	5
506230.92	4320266.31	0.00087	428.02	648.69	1.5	ANNUAL	ALL	5
506197.26	4320282.83	0.00066	428.83	648.69	1.5	ANNUAL	ALL	5
506212.21	4320313.31	0.00077	429.45	648.69	1.5	ANNUAL	ALL	5
506163.59	4320299.35	0.00053	427.5	648.69	1.5	ANNUAL	ALL	5
506178.54	4320329.83	0.00061	428.05	648.69	1.5	ANNUAL	ALL	5
506129.92	4320315.86	0.00044	425.29	648.69	1.5	ANNUAL	ALL	5
506144.88	4320346.34	0.00051	425.36	648.69	1.5	ANNUAL	ALL	5
506062.59	4320348.9	0.00032	423.37	648.69	1.5	ANNUAL	ALL	5
506077.54	4320379.38	0.00035	422.06	648.69	1.5	ANNUAL	ALL	5
505995.26	4320381.93	0.00023	421.83	648.69	1.5	ANNUAL	ALL	5
506010.21	4320412.41	0.00026	423.68	648.69	1.5	ANNUAL	ALL	5
506357.39	4320269.94	0.0041	425.73	648.69	1.5	ANNUAL	ALL	5
506340.38	4320277.83	0.00316	426.48	648.69	1.5	ANNUAL	ALL	5
506221.33	4320333.09	0.00083	430.84	648.69	1.5	ANNUAL	ALL	5
506187.32	4320348.88	0.00065	429.96	648.69	1.5	ANNUAL	ALL	5
506153.31	4320364.67	0.00053	427.11	648.69	1.5	ANNUAL	ALL	5
506085.28	4320396.25	0.00038	421.55	648.69	1.5	ANNUAL	ALL	5
506229.53	4320397.56	0.00089	430.48	648.69	1.5	ANNUAL	ALL	5
506208.43	4320373.22	0.00076	431.08	648.69	1.5	ANNUAL	ALL	5
506309.38	4320504.39	0.00106	427.01	648.69	1.5	ANNUAL	ALL	5
506277.69	4320494.69	0.00099	427.22	648.69	1.5	ANNUAL	ALL	5
506250.99	4320477.33	0.00092	427.94	648.69	1.5	ANNUAL	ALL	5
506229.29	4320452.29	0.00087	425.86	648.69	1.5	ANNUAL	ALL	5
506207.58	4320427.26	0.0008	424.29	648.69	1.5	ANNUAL	ALL	5
506185.87	4320402.22	0.00068	427.11	648.69	1.5	ANNUAL	ALL	5
506210.52	4320540.68	0.00069	419.47	648.69	1.5	ANNUAL	ALL	5
506189.65	4320516.61	0.00065	419.93	648.69	1.5	ANNUAL	ALL	5
506168.77	4320492.54	0.00061	420.13	648.69	1.5	ANNUAL	ALL	5
506147.9	4320468.46	0.00055	419.79	648.69	1.5	ANNUAL	ALL	5
506127.02	4320444.39	0.00049	419.63	648.69	1.5	ANNUAL	ALL	5
506106.15	4320420.32	0.00043	420.23	648.69	1.5	ANNUAL	ALL	5
506147.5	4320578.03	0.0005	417.18	648.69	1.5	ANNUAL	ALL	5
506125.79	4320553	0.00047	419.54	648.69	1.5	ANNUAL	ALL	5
506104.08	4320527.96	0.00043	419.76	648.69	1.5	ANNUAL	ALL	5
506082.37	4320502.93	0.00039	420.01	648.69	1.5	ANNUAL	ALL	5
506060.67	4320477.89	0.00034	421.27	648.69	1.5	ANNUAL	ALL	5
506038.96	4320452.86	0.0003	423.55	648.69	1.5	ANNUAL	ALL	5

** CONCUNIT ug /m^3
** DEPUNIT g/m ^2

Health Risk Assessment

Lakeport Shopping Center Project

Risk Calculations

Mitigated Construction

Cancer Risk Calculations Using OEHHA Cancer Risk Assumptions
Lakeport Shopping Center Project

Maximum Impacted Sensitive Receptor from Phase 1 Construction

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Infant

UTM: 506655.11 4320009.77

Cancer Potency Factor:	1.1	$(mg/kg\text{-}day)^{-1}$
Exposure Frequency	350	days/year
Averaging Period	25550	days

Construction Annual DPM Emissions (as PM10 Exhaust) Mitigated

Phase	Time In Phase	Age	Maximum DPM Concentration (ug/m3)	Age Sensitivity Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Cancer Risk (/million)
1	0.2500	3rd Trimester	0.0155	10	361	0.85	0.250	0.18
1	0.2541	0-<1	0.0155	10	1090	0.85	0.254	0.55
—	0.1616	0-<1	0.0000	10	1090	0.85	0.162	0.00
2	0.5842	0-<1	0.0042	10	1090	0.85	0.584	0.34
2	0.1664	1-<2	0.0042	10	1090	0.85	0.17	0.10
3	0.8336	1-<2	0.0108	10	1090	0.85	0.83	1.26
3	0.3144	2-<3	0.0108	3	631	0.72	0.31	0.07
							Total	2.50

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Child

UTM: 506655.11 4320009.77

Cancer Potency Factor:	1.1	$(mg/kg\text{-}day)^{-1}$
Exposure Frequency	350	days/year
Averaging Period	25550	days

Construction Annual DPM Emissions (as PM10Exhaust) Mitigated

Phase	Time In Phase	Age	Maximum DPM Concentration (ug/m3)	Age Sensitivity Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Unit Risk Factor $(ug/m3)^{-1}$
1	0.5041	Child	0.0155	3	745	0.72	0.50	0.19
—	0.0000	Child	0.0000	3	745	0.72	0.00	0.00
2	0.7507	Child	0.0042	3	745	0.72	0.75	0.08
3	1.1479	Child	0.0108	3	745	0.72	1.15	0.30
							Total	0.57

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Adult

UTM: 506655.11 4320009.77

Cancer Potency Factor:	1.1	$(mg/kg\text{-}day)^{-1}$
Exposure Frequency	350	days/year
Averaging Period	25550	days

Construction Annual DPM Emissions (as PM10 Exhaust) Mitigated

Phase	Time In Phase	Age	Maximum DPM Concentration (ug/m3)	Age Sensitivity Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Unit Risk Factor $(ug/m3)^{-1}$
1	0.5041	Adult	0.0155	1	290	0.73	0.50	0.02
—	0.0000	Adult	0.0000	1	290	0.73	0.00	0.00
2	0.7507	Adult	0.0042	1	290	0.73	0.75	0.01
3	1.1479	Adult	0.0108	1	290	0.73	1.15	0.04
							Total	0.07

Cancer Risk Calculations Using OEHHA Cancer Risk Assumptions
Lakeport Shopping Center Project

Maximum Impacted Sensitive Receptor from Phase 2 Construction
Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Infant
UTM: 506480.42 4320011.71

Cancer Potency Factor: 1.1 $(mg/kg\text{-}day)^{-1}$
Exposure Frequency 350 days/year
Averaging Period 25550 days

Construction Annual DPM Emissions (as PM10 Exhaust) Mitigated

Phase	Time In Phase	Age	Maximum DPM Concentration (ug/m3)	Age Sensitivity Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Cancer Risk (/million)
1	0.2500	3rd Trimester	0.0028	10	361	0.85	0.250	0.03
1	0.2541	0-<1	0.0028	10	1090	0.85	0.254	0.10
—	0.1616	0-<1	0.0000	10	1090	0.85	0.162	0.00
2	0.5842	0-<1	0.0342	10	1090	0.85	0.584	2.79
2	0.1664	1-<2	0.0342	10	1090	0.85	0.17	0.79
3	0.8336	1-<2	0.0033	10	1090	0.85	0.83	0.38
3	0.3144	2-<3	0.0033	3	631	0.72	0.31	0.02
							Total	4.12

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Child
UTM: 506480.42 4320011.71

Cancer Potency Factor: 1.1 $(mg/kg\text{-}day)^{-1}$
Exposure Frequency 350 days/year
Averaging Period 25550 days

Construction Annual DPM Emissions (as PM10 Exhaust) Mitigated

Phase	Time In Phase	Age	Maximum DPM Concentration (ug/m3)	Age Sensitivity Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Unit Risk Factor $(ug/m3)^{-1}$
1	0.5041	Child	0.0028	3	745	0.72	0.50	0.03
—	0.0000	Child	0.0000	3	745	0.72	0.00	0.00
2	0.7507	Child	0.0342	3	745	0.72	0.75	0.62
3	1.1479	Child	0.0033	3	745	0.72	1.15	0.09
							Total	0.75

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Adult
UTM: 506480.42 4320011.71

Cancer Potency Factor: 1.1 $(mg/kg\text{-}day)^{-1}$
Exposure Frequency 350 days/year
Averaging Period 25550 days

Construction Annual DPM Emissions (as PM10 Exhaust) Mitigated

Phase	Time In Phase	Age	Maximum DPM Concentration (ug/m3)	Age Sensitivity Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Unit Risk Factor $(ug/m3)^{-1}$
1	0.5041	Adult	0.0028	1	290	0.73	0.50	0.00
—	0.0000	Adult	0.0000	1	290	0.73	0.00	0.00
2	0.7507	Adult	0.0342	1	290	0.73	0.75	0.08
3	1.1479	Adult	0.0033	1	290	0.73	1.15	0.01
							Total	0.10

Cancer Risk Calculations Using OEHHA Cancer Risk Assumptions
Lakeport Shopping Center Project

Maximum Impacted Sensitive Receptor from Phase 3 Construction

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Infant

UTM: 506616.29 4320010.20

Cancer Potency Factor:	1.1	$(mg/kg\text{-}day)^{-1}$
Exposure Frequency	350	days/year
Averaging Period	25550	days

Construction Annual DPM Emissions (as PM10 Exhaust) Mitigated

Phase	Time In Phase	Age	Maximum DPM Concentration (ug/m3)	Age Sensitivity Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Cancer Risk (/million)
1	0.2500	3rd Trimester	0.0126	10	361	0.85	0.250	0.15
1	0.2541	0-<1	0.0126	10	1090	0.85	0.254	0.45
—	0.1616	0-<1	0.0000	10	1090	0.85	0.162	0.00
2	0.5842	0-<1	0.0072	10	1090	0.85	0.584	0.59
2	0.1664	1-<2	0.0072	10	1090	0.85	0.17	0.17
3	0.8336	1-<2	0.0115	10	1090	0.85	0.83	1.34
3	0.3144	2-<3	0.0115	3	631	0.72	0.31	0.07
							Total	2.76

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Child

UTM: 506616.29 4320010.2

Cancer Potency Factor:	1.1	$(mg/kg\text{-}day)^{-1}$
Exposure Frequency	350	days/year
Averaging Period	25550	days

Construction Annual DPM Emissions (as PM10 Exhaust) Mitigated

Phase	Time In Phase	Age	Maximum DPM Concentration (ug/m3)	Age Sensitivity Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Unit Risk Factor $(ug/m3)^{-1}$
1	0.5041	Child	0.0126	3	745	0.72	0.50	0.15
—	0.0000	Child	0.0000	3	745	0.72	0.00	0.00
2	0.7507	Child	0.0072	3	745	0.72	0.75	0.13
3	1.1479	Child	0.0115	3	745	0.72	1.15	0.32
							Total	0.61

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Adult

UTM: 506616.29 4320010.2

Cancer Potency Factor:	1.1	$(mg/kg\text{-}day)^{-1}$
Exposure Frequency	350	days/year
Averaging Period	25550	days

Construction Annual DPM Emissions (as PM10 Exhaust) Mitigated

Phase	Time In Phase	Age	Maximum DPM Concentration (ug/m3)	Age Sensitivity Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Unit Risk Factor $(ug/m3)^{-1}$
1	0.5041	Adult	0.0126	1	290	0.73	0.50	0.02
—	0.0000	Adult	0.0000	1	290	0.73	0.00	0.00
2	0.7507	Adult	0.0072	1	290	0.73	0.75	0.02
3	1.1479	Adult	0.0115	1	290	0.73	1.15	0.04
							Total	0.08

Lakeport Shopping Center Project

UTM: 506655.11 4320009.77
Estimates of Chronic Non-Cancer Hazard Index (CNCHI)
Mitigated
Chronic Non-Cancer Hazard Index at the Maximum Impacted Sensitive Receptor
Reference Exposure Level (REL) for DPM: 5 ug/m3
CNCHI = DPM/REL

X (m)	Y (m)	Max DPM (ug/m3)	Max DPM (ug/m3)	CNCHI
506655.11	4320009.77	1.5490E-02	1.5490E-02	3.0980E-03

UTM: 506480.42 4320011.71
Estimates of Chronic Non-Cancer Hazard Index (CNCHI)
Mitigated
Chronic Non-Cancer Hazard Index at the Maximum Impacted Sensitive Receptor
Reference Exposure Level (REL) for DPM: 5 ug/m3
CNCHI = DPM/REL

X (m)	Y (m)	Max DPM (ug/m3)	Max DPM (ug/m3)	CNCHI
506480.42	4320011.71	3.4160E-02	3.4160E-02	6.8320E-03

UTM: 506616.29 4320010.20
Estimates of Chronic Non-Cancer Hazard Index (CNCHI)
Mitigated
Chronic Non-Cancer Hazard Index at the Maximum Impacted Sensitive Receptor
Reference Exposure Level (REL) for DPM: 5 ug/m3
CNCHI = DPM/REL

X (m)	Y (m)	Max DPM (ug/m3)	Max DPM (ug/m3)	CNCHI
506616.29	4320010.2	1.2610E-02	1.2610E-02	2.5220E-03

Health Risk Assessment

Lakeport Shopping Center Project

Benzene During Project Operations

Lakeport Shopping Center Project—Benzene Emissions Calculations

Total Capacity (gallons)	60,000	(Two storage tanks - assumed up to 30,000 gallons for each tank)
Total Annual Throughput (gallons)	2,000,000	(Annual permitted throughput value in gallons)

Benzene Emissions Calculations (Based on 24-hr, 7-day per week Operations)

Underground Storage Tanks (Area 1 of 2)	Total Capacity (gallons)	Annual Throughput (gallons)	Emission Factor (lbs/1,000 gallons)	Daily Fuel Movement (gallons)	lbs/day	g/day	g/sec
Loading	30,000	1,000,000	0.001260	2,740	0.003	1.5658E+00	1.8123E-05
Breathing			0.000075	30,000	0.002	1.0206E+00	1.1812E-05

Underground Storage Tanks (Area 2 of 2)	Total Capacity (gallons)	Annual Throughput (gallons)	Emission Factor (lbs/1,000 gallons)	Daily Fuel Movement (gallons)	lbs/day	g/day	g/sec
Loading	30,000	1,000,000	0.001260	2,740	0.003	1.5658E+00	1.8123E-05
Breathing			0.000075	30,000	0.002	1.0206E+00	1.1812E-05

Fuel Dispensers (Total)	Annual Throughput (gallons)	Emission Factor (lbs/1,000 gallons)	Daily Throughput (gallons)	lbs/day	g/day	g/sec
Refueling	2,000,000	0.000960	5,479	0.005	2.3860E+00	2.7616E-05
Spillage		0.002400	5,479	0.013	5.9650E+00	6.9040E-05

Sources:
BAAQMD Air Toxics NSR Program Health Risk Assessment Guidelines (2016); SCAQMD Emission Inventory and Risk Assessment Guidelines for Gasoline Dispensing Stations (2007); and CAPCOA Gasoline Service Station Industrywide Risk Assessment Guidelines (1997).

Fuel Dispensers (1 of 8)	Annual Throughput (gallons)	Emission Factor (lbs/1,000 gallons)	Daily Throughput (gallons)	lbs/day	g/day	g/sec
Refueling	250,000	0.000960	685	0.001	2.9825E-01	3.4520E-06
Spillage		0.002400	685	0.002	7.4563E-01	8.6300E-06

Fuel Dispensers (2 of 8)	Annual Throughput (gallons)	Emission Factor (lbs/1,000 gallons)	Daily Throughput (gallons)	lbs/day	g/day	g/sec
Refueling	250,000	0.000960	685	0.001	2.9825E-01	3.4520E-06
Spillage		0.002400	685	0.002	7.4563E-01	8.6300E-06

Fuel Dispensers (3 of 8)	Annual Throughput (gallons)	Emission Factor (lbs/1,000 gallons)	Daily Throughput (gallons)	lbs/day	g/day	g/sec
Refueling	250,000	0.000960	685	0.001	2.9825E-01	3.4520E-06
Spillage		0.002400	685	0.002	7.4563E-01	8.6300E-06

Fuel Dispensers (4 of 8)	Annual Throughput (gallons)	Emission Factor (lbs/1,000 gallons)	Daily Throughput (gallons)	lbs/day	g/day	g/sec
Refueling	250,000	0.000960	685	0.001	2.9825E-01	3.4520E-06
Spillage		0.002400	685	0.002	7.4563E-01	8.6300E-06

Fuel Dispensers (5 of 8)	Annual Throughput (gallons)	Emission Factor (lbs/1,000 gallons)	Daily Throughput (gallons)	lbs/day	g/day	g/sec
Refueling	250,000	0.000960	685	0.001	2.9825E-01	3.4520E-06
Spillage		0.002400	685	0.002	7.4563E-01	8.6300E-06

Fuel Dispensers (6 of 8)	Annual Throughput (gallons)	Emission Factor (lbs/1,000 gallons)	Daily Throughput (gallons)	lbs/day	g/day	g/sec
Refueling	250,000	0.000960	685	0.001	2.9825E-01	3.4520E-06
Spillage		0.002400	685	0.002	7.4563E-01	8.6300E-06

Fuel Dispensers (7 of 8)	Annual Throughput (gallons)	Emission Factor (lbs/1,000 gallons)	Daily Throughput (gallons)	lbs/day	g/day	g/sec
Refueling	250,000	0.000960	685	0.001	2.9825E-01	3.4520E-06
Spillage		0.002400	685	0.002	7.4563E-01	8.6300E-06

Fuel Dispensers (8 of 8)	Annual Throughput (gallons)	Emission Factor (lbs/1,000 gallons)	Daily Throughput (gallons)	lbs/day	g/day	g/sec
Refueling	250,000	0.000960	685	0.001	2.9825E-01	3.4520E-06
Spillage		0.002400	685	0.002	7.4563E-01	8.6300E-06

Benzene Input Summary

Parameter	Location	Source	Height (m)	Diameter (m)	Vertical dimension (m)	Release height (m)
Loading	Storage tanks	Point	3.66	0.05	-	-
Breathing	Storage tanks	Point	3.66	0.05	-	-
Refueling	Canopy	Volume	-	-	5	1
Spillage	Canopy	Volume	-	-	5	0

Storage Tanks (Loading + Breathing)
Fuel Dispensers (Refueling)
Fuel Dispensers (Spillage)

Assumed Hours per Day	Hours of Operation	Hours Per Day	Hours Per Year of Operations	Hours Per Year (24/day)	Factor
Sunday	24 hours	24	1,248	1,248	1.0000
Monday	24 hours	24	1,248	1,248	1.0000
Tuesday	24 hours	24	1,248	1,248	1.0000
Wednesday	24 hours	24	1,248	1,248	1.0000
Thursday	24 hours	24	1,248	1,248	1.0000
Friday	24 hours	24	1,248	1,248	1.0000
Saturday	24 hours	24	1,248	1,248	1.0000

Lakeport Shopping Center Project—Benzene Health Risk Calculations

Risk Calculations

1-Hour Average Concentration:	0.12292	1-Hour concentration (µg/m3) from air dispersion model
24-Hour Average Concentration:	0.02298	24-Hour average concentration (µg/m3) from air dispersion model
Annual Average Concentration:	0.00477	annual average concentration (µg/m3) from air dispersion model

Cancer Risk

	3rd trimester	0<2 years	2<9 years	9<16 years	2<16 years	16<30 years	30<70 years	16<70 years
DOSEair = (Cair*(BR/BW)*A*EF*10^{-6})	1.65309E-06	4.99133E-06	2.88948E-06	2.61930E-06	2.61930E-06	1.19517E-06	1.06695E-06	1.06695E-06
Risk = DOSEair * CPF * ASF * ED/AT * FAH	5.01831E-09	1.21218E-07	6.24127E-08	5.65769E-08	1.13154E-07	1.74495E-08	4.45072E-08	6.00847E-08
Exposure Duration (years)	0.25	2	7	7	14	14	40	54

Cancer Risk:	Risk	in one million	Exposure (years)
70-year exposure	2.995E-07	0.30	70
30-year exposure	2.568E-07	0.26	30
9-year exposure	1.886E-07	0.19	9

	DOSEair		mg/kg-d	Dose through inhalation
	CPF	0.1	$(mg/kg/day)^{-1}$	Cancer Potency Factor for Benzene
BR/BW	BR/BW (3rd trimester)	361	L/kg	Daily Breathing rate normalized to body weight
	BR/BW (0 < 2 years)	1,090	bodyweight-	95th percentile used for 3rd trimester and 0<2
	BR/BW (2 < 9 years)	631	day	80th percentile used for all other age bins
	BR/BW (2 < 16 years)	572		
	BR/BW (9 < 16 years)	572		
	BR/BW (16 < 30 years)	261		
	BR/BW (16 < 70 years)	233		
	10^{-6}	1.00E-06		Micrograms to milligrams conversions, liters to cubic meters conversion
	Cair	0.1	ug/m3	Concentration in air (ug/m3), modeled annual average concentration
	A	1		Inhalation absorption factor
	EF	0.96	days/year	Exposure frequency (days/year)
ED	ED (3rd trimester)	0.25	years	Exposure duration (years)
	ED (0 < 2 years)	2		
	ED (2 < 9 years)	7		
	ED (9 < 16 years)	7		
	ED (2 < 16, 16 < 30 years)	14		
	ED (16<70 years)	40		
	ED (16 - 70 years)	54		
	AT	70	years	Averaging time period over which exposure is averaged
ASF	ASF (3rd trimester - 2 years)	10		Age Sensitivity Factor
	ASF (2 - 16 years)	3		
	ASF (16 - 70 years)	1		
FAH	FAH (3rd trimester - 2 years)	0.85		Fraction of time spent at home (unitless)
	FAH (2 - 16 years)	0.72		
	FAH (16 - 70 years)	0.73		

Lakeport Shopping Center Project—Benzene Health Risk Calculations (Continued)

Chronic Noncancer Hazard

Threshold:	1	
Hazard Quotient = Ci/RELi		
HQ =	0.002	Hazard Quotient
C_i	0.005	Concentration in the air of substance i (annual average concentration in µg/m^3)
REL_i	3	Chronic noncancer Reference Exposure Level for substance i (µg/m^3)
Chronic RELi (Benzene):	3	
Chronic RELi (Diesel Exhaust):	5	Shown for informational purposes only (not used in benzene calculations)

Acute NonCancer Hazard

Threshold:	1	
Acute HQ = Maximum Hourly Concentration/Acute REL		
Acute HQ =	0.005	Acute HQ = Maximum Hourly Air Concentration (µg/m^3) / Acute REL (µg/m^3)
Maximum Hourly	0.123	Maximum Hourly Air Concentration (µg/m^3)
Acute (Benzene):	27	Acute REL (µg/m^3)
8-hour (Benzene):	3	
Chronic (Benzene):	3	

1-HR AVERAGE CONC Maximum 0.12292

* AERMOD (191 91): G:\LSC_HRA \03 - Benzene Ops\03 - Benzene Ops .isc 10/11/2021
* AERMET (14134): 3:44:12 AM
* MODELING OPT IONS USED: Re gDFAULT CONC ELEV F LGPOL URBAN
* PLOT FILE OF HIGH 1ST HIGH 1-HR VALUE S FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 65 2 RECEPTORS.
* FORM AT: (3(1X,F13.5),3(1X,F8.2), 3X,A5,2X, A8,2X,A5,5X, A8,2X,I 8)

X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	RANK	NET ID	DATE(CONC)
506703.91	4320437.76	0.05271	420.88	432.12	1.5	1-HR	ALL	1ST		9020218
506676.87	4320495.35	0.05646	423.66	431.49	1.5	1-HR	ALL	1ST		9121501
506701.34	4320484.15	0.06033	424.59	431.49	1.5	1-HR	ALL	1ST		11011218
506724.35	4320469.2	0.05729	423.58	432.12	1.5	1-HR	ALL	1ST		11121418
506717.54	4320558.3	0.05084	428.24	432.02	1.5	1-HR	ALL	1ST		13012521
506691.19	4320565.86	0.03142	420.45	432.12	1.5	1-HR	ALL	1ST		11011823
506742.21	4320547.04	0.04519	431.7	431.7	1.5	1-HR	ALL	1ST		10010918
506765.22	4320532.08	0.0496	432.05	432.05	1.5	1-HR	ALL	1ST		10121804
506718.35	4320369.19	0.05799	418.53	418.53	1.5	1-HR	ALL	1ST		9010504
506747.68	4320355.39	0.06202	418.67	445.92	1.5	1-HR	ALL	1ST		11022218
506704.99	4320416.93	0.0572	420.06	430.6	1.5	1-HR	ALL	1ST		9020218
506734.32	4320403.12	0.04964	418.93	432.12	1.5	1-HR	ALL	1ST		9010504
506763.65	4320389.32	0.05046	418.46	445.92	1.5	1-HR	ALL	1ST		11022218
506720.96	4320450.86	0.04938	421.47	432.12	1.5	1-HR	ALL	1ST		9020218
506750.29	4320437.05	0.04265	419.57	432.12	1.5	1-HR	ALL	1ST		9010504
506779.62	4320423.25	0.0431	418.64	445.92	1.5	1-HR	ALL	1ST		10121406
506721.34	4320488.78	0.05646	425.73	432.12	1.5	1-HR	ALL	1ST		10010918
506751.59	4320477.88	0.05895	426.13	432.12	1.5	1-HR	ALL	1ST		10121804
506768.87	4320552.65	0.04812	431.71	432.04	1.5	1-HR	ALL	1ST		11121418
506757.91	4320246.35	0.10467	419.21	648.69	1.5	1-HR	ALL	1ST		13021922
506776.07	4320220.81	0.09765	419.9	445.92	1.5	1-HR	ALL	1ST		9012017
506774.97	4320254.45	0.09113	420.15	445.92	1.5	1-HR	ALL	1ST		13021922
506754.47	4320274.47	0.09367	419.27	445.92	1.5	1-HR	ALL	1ST		9021608
506755.14	4320298.58	0.07578	418.81	445.92	1.5	1-HR	ALL	1ST		9120817
507069.29	4320032.11	0.02541	411.74	445.92	1.5	1-HR	ALL	1ST		9010317
507144.29	4320032.11	0.0201	408.5	445.92	1.5	1-HR	ALL	1ST		10012901
507136.82	4320049.44	0.02103	410.64	445.92	1.5	1-HR	ALL	1ST		9021001
507129.35	4320066.77	0.02035	412.6	445.92	1.5	1-HR	ALL	1ST		9021001
507121.88	4320084.11	0.02151	415.74	445.92	1.5	1-HR	ALL	1ST		13020721
507114.41	4320101.44	0.02277	418.21	445.92	1.5	1-HR	ALL	1ST		13020721
507106.94	4320118.77	0.02406	419.88	445.92	1.5	1-HR	ALL	1ST		12022318
507099.47	4320136.11	0.02719	421.37	445.92	1.5	1-HR	ALL	1ST		12022318
507092	4320153.44	0.03455	423.61	445.92	1.5	1-HR	ALL	1ST		11010103
507084.53	4320170.77	0.03944	425.39	445.92	1.5	1-HR	ALL	1ST		12020707
507077.06	4320188.11	0.0415	427.1	445.92	1.5	1-HR	ALL	1ST		9010101
507069.59	4320205.44	0.04465	429.72	445.92	1.5	1-HR	ALL	1ST		12012818
507219.29	4320032.11	0.01671	407.19	445.92	1.5	1-HR	ALL	1ST		9021001
507211.82	4320049.45	0.01604	407.27	445.92	1.5	1-HR	ALL	1ST		9010417
507204.34	4320066.79	0.01679	407.4	445.92	1.5	1-HR	ALL	1ST		13020721
507196.87	4320084.13	0.01796	408.03	445.92	1.5	1-HR	ALL	1ST		13020721
507189.39	4320101.47	0.01836	409.32	445.92	1.5	1-HR	ALL	1ST		13021901
507181.92	4320118.82	0.02049	410.51	445.92	1.5	1-HR	ALL	1ST		12022318
507174.45	4320136.16	0.02119	411.8	445.92	1.5	1-HR	ALL	1ST		12022318
507166.97	4320153.5	0.02016	413.4	445.92	1.5	1-HR	ALL	1ST		9022401
507159.5	4320170.84	0.02099	414.94	445.92	1.5	1-HR	ALL	1ST		12020707
507152.02	4320188.18	0.02105	416.48	445.92	1.5	1-HR	ALL	1ST		9010101
507144.55	4320205.52	0.02249	417.42	445.92	1.5	1-HR	ALL	1ST		11020508
506837.97	4319876.1	0.03238	411.74	648.69	1.5	1-HR	ALL	1ST		13010623
506712.12	4319999.57	0.07228	414.57	648.69	1.5	1-HR	ALL	1ST		10012921
506715.28	4319990.41	0.06866	414.55	648.69	1.5	1-HR	ALL	1ST		13122121
506716.15	4319971.68	0.06409	414.55	648.69	1.5	1-HR	ALL	1ST		13122121
506717.01	4319952.95	0.05954	414.63	648.69	1.5	1-HR	ALL	1ST		10021820
506717.88	4319934.22	0.0548	414.72	648.69	1.5	1-HR	ALL	1ST		10021820
506718.74	4319915.49	0.04965	414.8	648.69	1.5	1-HR	ALL	1ST		12022522
506790.5	4319906.09	0.04043	413.43	648.69	1.5	1-HR	ALL	1ST		13120721
506756.99	4319898.49	0.04341	414.02	648.69	1.5	1-HR	ALL	1ST		13122121
506738.3	4319897.62	0.0457	414.15	648.69	1.5	1-HR	ALL	1ST		10021820
506719.61	4319896.76	0.04551	414.33	648.69	1.5	1-HR	ALL	1ST		13012624
506810.41	4319896.04	0.03596	412.28	648.69	1.5	1-HR	ALL	1ST		13010603
506776.55	4319880.62	0.03842	413.08	648.69	1.5	1-HR	ALL	1ST		13122121
506757.86	4319879.76	0.04007	413.22	648.69	1.5	1-HR	ALL	1ST		10021820
506739.16	4319878.89	0.04109	413.28	648.69	1.5	1-HR	ALL	1ST		12022522
506720.47	4319878.03	0.04213	413.49	648.69	1.5	1-HR	ALL	1ST		13012624
506794.15	4319850.39	0.03346	411.86	648.69	1.5	1-HR	ALL	1ST		13122121
506825.89	4319864.84	0.03213	411.67	648.69	1.5	1-HR	ALL	1ST		13010603
506759.59	4319842.3	0.0354	412.09	648.69	1.5	1-HR	ALL	1ST		10021820
506740.89	4319841.43	0.03569	412.29	648.69	1.5	1-HR	ALL	1ST		13012624
506722.2	4319840.57	0.03647	412.5	648.69	1.5	1-HR	ALL	1ST		9122818
506796.94	4319813.41	0.03004	411.86	648.69	1.5	1-HR	ALL	1ST		13122121
506813.87	4319821.12	0.02938	411.64	648.69	1.5	1-HR	ALL	1ST		13122121
506830.79	4319828.82	0.02884	411.39	648.69	1.5	1-HR	ALL	1ST		13120721
506847.72	4319836.53	0.02846	411.17	648.69	1.5	1-HR	ALL	1ST		13010603
506780.01	4319805.7	0.03109	411.9	648.69	1.5	1-HR	ALL	1ST		10021820
506761.32	4319804.84	0.03094	412.02	648.69	1.5	1-HR	ALL	1ST		13123101
506742.62	4319803.97	0.03082	412.19	648.69	1.5	1-HR	ALL	1ST		13012624
506723.93	4319803.11	0.03337	412.29	648.69	1.5	1-HR	ALL	1ST		11120117
506797.9	4319775.6	0.02804	411.56	648.69	1.5	1-HR	ALL	1ST		10021820
506830.21	4319790.31	0.02654	411.21	648.69	1.5	1-HR	ALL	1ST		13122121
506862.53	4319805.03	0.026	410.87	648.69	1.5	1-HR	ALL	1ST		13120721
506966.08	4319865.66	0.02484	410.16	648.69	1.5	1-HR	ALL	1ST		12010117
506763.05	4319767.38	0.02768	411.79	648.69	1.5	1-HR	ALL	1ST		13012624
506744.35	4319766.51	0.02869	412.07	648.69	1.5	1-HR	ALL	1ST		11120117
506725.66	4319765.65	0.02911	412.15	648.69	1.5	1-HR	ALL	1ST		11120117
506800.4	4319738.49	0.02476	411.43	648.69	1.5	1-HR	ALL	1ST		12022522
506817.33	4319746.2	0.02528	411.12	648.69	1.5	1-HR	ALL	1ST		10021820
506834.25	4319753.9	0.02468	410.98	648.69	1.5	1-HR	ALL	1ST		13122121
506851.18	4319761.61	0.02382	410.81	648.69	1.5	1-HR	ALL	1ST		10012921
506868.11	4319769.32	0.02327	410.68	648.69	1.5	1-HR	ALL	1ST		13120721
506885.04	4319777.03	0.02331	410.6	648.69	1.5	1-HR	ALL	1ST		13120721
506993.52	4319840.54	0.02245	409.87	648.69	1.5	1-HR	ALL	1ST		12010117
507000.44	4319857.81	0.02215	409.74	648.69	1.5	1-HR	ALL	1ST		9122624
507007.36	4319875.07	0.02307	409.83	648.69	1.5	1-HR	ALL	1ST		10021420
507048.87	4319978.66	0.02465	410.72	648.69	1.5	1-HR	ALL	1ST		10013019
507055.79	4319995.93	0.0249	410.99	648.69	1.5	1-HR	ALL	1ST		12020118
507062.71	4320013.19	0.02473	411.2	445.92	1.5	1-HR	ALL	1ST		11122022
506783.47	4319730.78	0.02475	411.72	648.69	1.5	1-HR	ALL	1ST		13012624
506764.78	4319729.92	0.02483	411.86	648.69	1.5	1-HR	ALL	1ST		9122818
506746.08	4319729.05	0.02642	411.94	648.69	1.5	1-HR	ALL	1ST		11120117
506727.39	4319728.19	0.02591	412.1	648.69	1.5	1-HR	ALL	1ST		12021704
506803.86	4319663.57	0.02065	411.87	648.69	1.5	1-HR	ALL	1ST		13012624
506820.79	4319671.28	0.0206	411.31	648.69	1.5	1-HR	ALL	1ST		13123101
506837.71	4319678.98	0.02109	411.4	648.69	1.5	1-HR	ALL	1ST		10021820
506854.64	4319686.69	0.02082	411.42	648.69	1.5	1-HR	ALL	1ST		10021820
506871.57	4319694.4	0.02083	411.36	648.69	1.5	1-HR	ALL	1ST		13122121
506888.5	4319702.11	0.02	411.07	648.69	1.5	1-HR	ALL	1ST		10012921
506905.42	4319709.82	0.01945	410.93	648.69	1.5	1-HR	ALL	1ST		13120721
506922.35	4319717.53	0.01978	410.76	648.69	1.5	1-HR	ALL	1ST		13120721
507006.99	4319756.07	0.01918	409.92	648.69	1.5	1-HR	ALL	1ST		13122322
507023.92	4319763.78	0.01888	409.47	648.69	1.5	1-HR	ALL	1ST		10021524
507047.76	4319788.75	0.01863	409.38	648.69	1.5	1-HR	ALL	1ST		12010117
507054.68	4319806.01	0.01865	409.45	648.69	1.5	1-HR	ALL	1ST		12010117
507061.6	4319823.28	0.0192	409.47	648.69	1.5	1-HR	ALL	1ST		13123105
507068.52	4319840.54	0.0199	409.38	648.69	1.5	1-HR	ALL	1ST		11011621
507075.44	4319857.81	0.01952	409.19	648.69	1.5	1-HR	ALL	1ST		11011621
507082.36	4319875.07	0.02054	408.85	648.69	1.5	1-HR	ALL	1ST		13120222
507089.28	4319892.34	0.02066	408.66	648.69	1.5	1-HR	ALL	1ST		13120222
507096.2	4319909.6	0.02082	408.51	648.69	1.5	1-HR	ALL	1ST		12022121
507103.12	4319926.87	0.02047	408.47	648.69	1.5	1-HR	ALL	1ST		10022702
507110.03	4319944.13	0.01983	408.5	648.69	1.5	1-HR	ALL	1ST		10010903
507116.95	4319961.4	0.02058	408.54	445.92	1.5	1-HR	ALL	1ST		10013019
507123.87	4319978.66	0.02062	408.45	445.92	1.5	1-HR	ALL	1ST		12020118
507130.79	4319995.93	0.02043	408.32	445.92	1.5	1-HR	ALL	1ST		9010317
507137.71	4320013.19	0.02033	408.43	445.92	1.5	1-HR	ALL	1ST		9010317
506786.93	4319655.86	0.02075	412.57	648.69	1.5	1-HR	ALL	1ST		9122818
506768.24	4319655	0.02177	412.66	648.69	1.5	1-HR	ALL	1ST		11120117
506749.54	4319654.13	0.0213	412.48	648.69	1.5	1-HR	ALL	1ST		12021704
506730.85	4319653.27	0.02066	412.96	648.69	1.5	1-HR	ALL	1ST		12022019
506807.32	4319588.65	0.0187	421.4	648.69	1.5	1-HR	ALL	1ST		9122818
506824.25	4319596.36	0.01785	421.09	648.69	1.5	1-HR	ALL	1ST		13012624
506841.17	4319604.06	0.01787	419.7	648.69	1.5	1-HR	ALL	1ST		13123101
506858.1	4319611.77	0.01808	417.39	648.69	1.5	1-HR	ALL	1ST		12022522
506875.03	4319619.48	0.01856	415.22	648.69	1.5	1-HR	ALL	1ST		10021820
506891.96	4319627.19	0.01743	413.58	648.69	1.5	1-HR	ALL	1ST		10021820
506908.88	4319634.9	0.01789	412.57	648.69	1.5	1-HR	ALL	1ST		13122121
506925.81	4319642.61	0.01716	411.99	648.69	1.5	1-HR	ALL	1ST		10012921
506942.74	4319650.31	0.01659	411.32	648.69	1.5	1-HR	ALL	1ST		13120721
507044.3	4319696.56	0.01645	409.32	648.69	1.5	1-HR	ALL	1ST		12121722
507061.23	4319704.27	0.01618	409.4	648.69	1.5	1-HR	ALL	1ST		13122322
507078.16	4319711.98	0.01621	409.48	648.69	1.5	1-HR	ALL	1ST		10021524
507102	4319736.95	0.0161	409.58	648.69	1.5	1-HR	ALL	1ST		10121119
507108.92	4319754.22	0.01614	409.54	648.69	1.5	1-HR	ALL	1ST		12010117
507115.84	4319771.48	0.01614	409.4	648.69	1.5	1-HR	ALL	1ST		13123105
507122.76	4319788.75	0.01653	409.31	648.69	1.5	1-HR	ALL	1ST		10021420
507129.68	4319806.01	0.01717	409.22	648.69	1.5	1-HR	ALL	1ST		11011621
507136.6	4319823.28	0.01648	409.08	648.69	1.5	1-HR	ALL	1ST		10021305
507143.52	4319840.54	0.01787	408.99	648.69	1.5	1-HR	ALL	1ST		13120222
507150.44	4319857.81	0.01758	408.63	648.69	1.5	1-HR	ALL	1ST		13120222
507157.36	4319875.07	0.01779	408.12	648.69	1.5	1-HR	ALL	1ST		12022121
507164.28	4319892.34	0.01737	407.93	445.79	1.5	1-HR	ALL	1ST		10022702
507171.2	4319909.6	0.01715	407.81	445.88	1.5	1-HR	ALL	1ST		10022702
507178.12	4319926.87	0.01752	407.74	445.92	1.5	1-HR	ALL	1ST		10013019
507185.03	4319944.13	0.01743	407.67	445.92	1.5	1-HR	ALL	1ST		12020118
507191.95	4319961.4	0.01719	407.61	445.92	1.5	1-HR	ALL	1ST		11011322
507198.87	4319978.66	0.01762	407.48	445.92	1.5	1-HR	ALL	1ST		9010317
507205.79	4319995.93	0.01727	407.32	445.92	1.5	1-HR	ALL	1ST		10012901
507212.71	4320013.19	0.01692	407.22	445.92	1.5	1-HR	ALL	1ST		10012901
506790.39	4319580.94	0.01944	421.61	648.69	1.5	1-HR	ALL	1ST		11120117
506771.7	4319580.08	0.01915	421.65	648.69	1.5	1-HR	ALL	1ST		12021704
506753	4319579.21	0.02236	422.3	648.69	1.5	1-HR	ALL	1ST		12022019
506734.31	4319578.35	0.02613	424.74	648.69	1.5	1-HR	ALL	1ST		9121223
506655.11	4320009.77	0.09357	415.49	648.69	1.5	1-HR	ALL	1ST		11120117
506635.7	4320009.98	0.08962	416.51	648.69	1.5	1-HR	ALL	1ST		9121223
506616.29	4320010.2	0.09211	417.44	648.69	1.5	1-HR	ALL	1ST		10122703
506596.88	4320010.42	0.11616	418.06	648.69	1.5	1-HR	ALL	1ST		10120323
506577.47	4320010.63	0.11297	419.08	648.69	1.5	1-HR	ALL	1ST		11022019
506558.06	4320010.85	0.10876	421.03	648.69	1.5	1-HR	ALL	1ST		11010820
506538.65	4320011.06	0.12292	422.45	648.69	1.5	1-HR	ALL	1ST		12021422
506519.24	4320011.28	0.12006	423.11	648.69	1.5	1-HR	ALL	1ST		9012222
506499.83	4320011.5	0.11282	423.16	648.69	1.5	1-HR	ALL	1ST		10010822
506480.42	4320011.71	0.11109	423.21	648.69	1.5	1-HR	ALL	1ST		11011401
506693.72	4319990.59	0.07611	414.73	648.69	1.5	1-HR	ALL	1ST		10021820
506674.31	4319990.8	0.07688	414.94	648.69	1.5	1-HR	ALL	1ST		13012624
506654.9	4319991.02	0.08066	415.38	648.69	1.5	1-HR	ALL	1ST		12021704
506635.49	4319991.24	0.07921	416.6	648.69	1.5	1-HR	ALL	1ST		13020307
506616.08	4319991.45	0.08075	417.71	648.69	1.5	1-HR	ALL	1ST		10122703
506596.67	4319991.67	0.10291	418.13	648.69	1.5	1-HR	ALL	1ST		10120323
506577.26	4319991.88	0.10256	418.76	648.69	1.5	1-HR	ALL	1ST		11022019
506557.85	4319992.1	0.09917	420.12	648.69	1.5	1-HR	ALL	1ST		11022020
506538.44	4319992.31	0.09584	420.96	648.69	1.5	1-HR	ALL	1ST		11011902
506519.03	4319992.53	0.09405	421.4	648.69	1.5	1-HR	ALL	1ST		10011407
506499.62	4319992.75	0.09067	421.69	648.69	1.5	1-HR	ALL	1ST		9012222

24-HR AVERAGE CONC Maximum 0.02298

* AERMOD (1919 1): G:\LSC_HRA \03 - Benzene Ops\03 - Benzene Ops .isc 10/11/2021
* AERMET (14134): 3:44:12 AM
* MODELING OPTI ONS USED: Re gDFAULT CONC ELEV F LGPOL URBAN
* PLOT FILE OF HIGH 1ST HIGH 24-HR VALUE S FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 65 2 RECEPTORS.
* FORMA T: (3(1X,F13.5),3(1X,F8.2), 3X,A5,2X, A8,2X,A5,5X, A8,2X,I 8)

X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	RANK	NET ID	DATE(CONC)
506703.91	4320437.76	0.00564	420.88	432.12	1.5	24-HR	ALL	1ST		11121424
506676.87	4320495.35	0.00581	423.66	431.49	1.5	24-HR	ALL	1ST		12052624
506701.34	4320484.15	0.00567	424.59	431.49	1.5	24-HR	ALL	1ST		11121424
506724.35	4320469.2	0.0058	423.58	432.12	1.5	24-HR	ALL	1ST		11121424
506717.54	4320558.3	0.00385	428.24	432.02	1.5	24-HR	ALL	1ST		11121424
506691.19	4320565.86	0.00309	420.45	432.12	1.5	24-HR	ALL	1ST		9121524
506742.21	4320547.04	0.00451	431.7	431.7	1.5	24-HR	ALL	1ST		11121424
506765.22	4320532.08	0.00371	432.05	432.05	1.5	24-HR	ALL	1ST		11121424
506718.35	4320369.19	0.00765	418.53	418.53	1.5	24-HR	ALL	1ST		9032124
506747.68	4320355.39	0.00697	418.67	445.92	1.5	24-HR	ALL	1ST		9032124
506704.99	4320416.93	0.00598	420.06	430.6	1.5	24-HR	ALL	1ST		11121424
506734.32	4320403.12	0.00575	418.93	432.12	1.5	24-HR	ALL	1ST		9032124
506763.65	4320389.32	0.00547	418.46	445.92	1.5	24-HR	ALL	1ST		9032124
506720.96	4320450.86	0.005	421.47	432.12	1.5	24-HR	ALL	1ST		11121424
506750.29	4320437.05	0.00447	419.57	432.12	1.5	24-HR	ALL	1ST		9032124
506779.62	4320423.25	0.00438	418.64	445.92	1.5	24-HR	ALL	1ST		9032124
506721.34	4320488.78	0.00592	425.73	432.12	1.5	24-HR	ALL	1ST		11121424
506751.59	4320477.88	0.0042	426.13	432.12	1.5	24-HR	ALL	1ST		11121424
506768.87	4320552.65	0.00379	431.71	432.04	1.5	24-HR	ALL	1ST		11121424
506757.91	4320246.35	0.01055	419.21	648.69	1.5	24-HR	ALL	1ST		13122124
506776.07	4320220.81	0.01067	419.9	445.92	1.5	24-HR	ALL	1ST		10012924
506774.97	4320254.45	0.00885	420.15	445.92	1.5	24-HR	ALL	1ST		13122124
506754.47	4320274.47	0.01	419.27	445.92	1.5	24-HR	ALL	1ST		9021624
506755.14	4320298.58	0.00697	418.81	445.92	1.5	24-HR	ALL	1ST		9021624
507069.29	4320032.11	0.00264	411.74	445.92	1.5	24-HR	ALL	1ST		10022024
507144.29	4320032.11	0.00197	408.5	445.92	1.5	24-HR	ALL	1ST		10022024
507136.82	4320049.44	0.00203	410.64	445.92	1.5	24-HR	ALL	1ST		13010624
507129.35	4320066.77	0.00231	412.6	445.92	1.5	24-HR	ALL	1ST		13010624
507121.88	4320084.11	0.00245	415.74	445.92	1.5	24-HR	ALL	1ST		13010624
507114.41	4320101.44	0.00238	418.21	445.92	1.5	24-HR	ALL	1ST		13010624
507106.94	4320118.77	0.00215	419.88	445.92	1.5	24-HR	ALL	1ST		11031624
507099.47	4320136.11	0.00235	421.37	445.92	1.5	24-HR	ALL	1ST		11031624
507092	4320153.44	0.00308	423.61	445.92	1.5	24-HR	ALL	1ST		11031624
507084.53	4320170.77	0.0029	425.39	445.92	1.5	24-HR	ALL	1ST		11031624
507077.06	4320188.11	0.00407	427.1	445.92	1.5	24-HR	ALL	1ST		12012824
507069.59	4320205.44	0.00495	429.72	445.92	1.5	24-HR	ALL	1ST		12012824
507219.29	4320032.11	0.00165	407.19	445.92	1.5	24-HR	ALL	1ST		13010624
507211.82	4320049.45	0.00183	407.27	445.92	1.5	24-HR	ALL	1ST		13010624
507204.34	4320066.79	0.00192	407.4	445.92	1.5	24-HR	ALL	1ST		13010624
507196.87	4320084.13	0.00188	408.03	445.92	1.5	24-HR	ALL	1ST		13010624
507189.39	4320101.47	0.00174	409.32	445.92	1.5	24-HR	ALL	1ST		13010624
507181.92	4320118.82	0.00175	410.51	445.92	1.5	24-HR	ALL	1ST		11031624
507174.45	4320136.16	0.00177	411.8	445.92	1.5	24-HR	ALL	1ST		11031624
507166.97	4320153.5	0.00171	413.4	445.92	1.5	24-HR	ALL	1ST		11031624
507159.5	4320170.84	0.00163	414.94	445.92	1.5	24-HR	ALL	1ST		12022724
507152.02	4320188.18	0.00201	416.48	445.92	1.5	24-HR	ALL	1ST		12012824
507144.55	4320205.52	0.00222	417.42	445.92	1.5	24-HR	ALL	1ST		12012824
506837.97	4319876.1	0.00544	411.74	648.69	1.5	24-HR	ALL	1ST		9122924
506712.12	4319999.57	0.01361	414.57	648.69	1.5	24-HR	ALL	1ST		13010924
506715.28	4319990.41	0.01278	414.55	648.69	1.5	24-HR	ALL	1ST		13012824
506716.15	4319971.68	0.01205	414.55	648.69	1.5	24-HR	ALL	1ST		13012824
506717.01	4319952.95	0.01122	414.63	648.69	1.5	24-HR	ALL	1ST		13012824
506717.88	4319934.22	0.01036	414.72	648.69	1.5	24-HR	ALL	1ST		13012824
506718.74	4319915.49	0.00954	414.8	648.69	1.5	24-HR	ALL	1ST		13012824
506790.5	4319906.09	0.00684	413.43	648.69	1.5	24-HR	ALL	1ST		13010924
506756.99	4319898.49	0.0075	414.02	648.69	1.5	24-HR	ALL	1ST		13012824
506738.3	4319897.62	0.0082	414.15	648.69	1.5	24-HR	ALL	1ST		13012824
506719.61	4319896.76	0.00874	414.33	648.69	1.5	24-HR	ALL	1ST		13012824
506810.41	4319896.04	0.00614	412.28	648.69	1.5	24-HR	ALL	1ST		9122924
506776.55	4319880.62	0.00637	413.08	648.69	1.5	24-HR	ALL	1ST		13012824
506757.86	4319879.76	0.00705	413.22	648.69	1.5	24-HR	ALL	1ST		13012824
506739.16	4319878.89	0.00758	413.28	648.69	1.5	24-HR	ALL	1ST		13012824
506720.47	4319878.03	0.00799	413.49	648.69	1.5	24-HR	ALL	1ST		13012824
506794.15	4319850.39	0.00541	411.86	648.69	1.5	24-HR	ALL	1ST		13012824
506825.89	4319864.84	0.00525	411.67	648.69	1.5	24-HR	ALL	1ST		13010924
506759.59	4319842.3	0.00618	412.09	648.69	1.5	24-HR	ALL	1ST		13012824
506740.89	4319841.43	0.00652	412.29	648.69	1.5	24-HR	ALL	1ST		13012824
506722.2	4319840.57	0.00674	412.5	648.69	1.5	24-HR	ALL	1ST		13012824
506796.94	4319813.41	0.005	411.86	648.69	1.5	24-HR	ALL	1ST		13012824
506813.87	4319821.12	0.00466	411.64	648.69	1.5	24-HR	ALL	1ST		13012824
506830.79	4319828.82	0.00482	411.39	648.69	1.5	24-HR	ALL	1ST		13010924
506847.72	4319836.53	0.00463	411.17	648.69	1.5	24-HR	ALL	1ST		9122924
506780.01	4319805.7	0.0052	411.9	648.69	1.5	24-HR	ALL	1ST		13012824
506761.32	4319804.84	0.00547	412.02	648.69	1.5	24-HR	ALL	1ST		13012824
506742.62	4319803.97	0.0057	412.19	648.69	1.5	24-HR	ALL	1ST		13012824
506723.93	4319803.11	0.00575	412.29	648.69	1.5	24-HR	ALL	1ST		13012824
506797.9	4319775.6	0.00454	411.56	648.69	1.5	24-HR	ALL	1ST		13012824
506830.21	4319790.31	0.00413	411.21	648.69	1.5	24-HR	ALL	1ST		13012824
506862.53	4319805.03	0.00414	410.87	648.69	1.5	24-HR	ALL	1ST		13010924
506966.08	4319865.66	0.00472	410.16	648.69	1.5	24-HR	ALL	1ST		11020824
506763.05	4319767.38	0.00486	411.79	648.69	1.5	24-HR	ALL	1ST		13012824
506744.35	4319766.51	0.005	412.07	648.69	1.5	24-HR	ALL	1ST		13012824
506725.66	4319765.65	0.00519	412.15	648.69	1.5	24-HR	ALL	1ST		13020324
506800.4	4319738.49	0.0041	411.43	648.69	1.5	24-HR	ALL	1ST		13012824
506817.33	4319746.2	0.00399	411.12	648.69	1.5	24-HR	ALL	1ST		13012824
506834.25	4319753.9	0.00385	410.98	648.69	1.5	24-HR	ALL	1ST		13012824
506851.18	4319761.61	0.00365	410.81	648.69	1.5	24-HR	ALL	1ST		13010924
506868.11	4319769.32	0.0038	410.68	648.69	1.5	24-HR	ALL	1ST		13010924
506885.04	4319777.03	0.00366	410.6	648.69	1.5	24-HR	ALL	1ST		13010924
506993.52	4319840.54	0.00423	409.87	648.69	1.5	24-HR	ALL	1ST		11020824
507000.44	4319857.81	0.00446	409.74	648.69	1.5	24-HR	ALL	1ST		11020824
507007.36	4319875.07	0.00423	409.83	648.69	1.5	24-HR	ALL	1ST		11020824
507048.87	4319978.66	0.00288	410.72	648.69	1.5	24-HR	ALL	1ST		10013024
507055.79	4319995.93	0.00311	410.99	648.69	1.5	24-HR	ALL	1ST		10013024
507062.71	4320013.19	0.0029	411.2	445.92	1.5	24-HR	ALL	1ST		10013024
506783.47	4319730.78	0.00419	411.72	648.69	1.5	24-HR	ALL	1ST		13012824
506764.78	4319729.92	0.00435	411.86	648.69	1.5	24-HR	ALL	1ST		13012824
506746.08	4319729.05	0.00439	411.94	648.69	1.5	24-HR	ALL	1ST		13012824
506727.39	4319728.19	0.0047	412.1	648.69	1.5	24-HR	ALL	1ST		13020324
506803.86	4319663.57	0.00341	411.87	648.69	1.5	24-HR	ALL	1ST		13012824
506820.79	4319671.28	0.00333	411.31	648.69	1.5	24-HR	ALL	1ST		13012824
506837.71	4319678.98	0.00327	411.4	648.69	1.5	24-HR	ALL	1ST		13012824
506854.64	4319686.69	0.00321	411.42	648.69	1.5	24-HR	ALL	1ST		13012824
506871.57	4319694.4	0.0031	411.36	648.69	1.5	24-HR	ALL	1ST		13012824
506888.5	4319702.11	0.00299	411.07	648.69	1.5	24-HR	ALL	1ST		13010924
506905.42	4319709.82	0.00312	410.93	648.69	1.5	24-HR	ALL	1ST		13010924
506922.35	4319717.53	0.00304	410.76	648.69	1.5	24-HR	ALL	1ST		13010924
507006.99	4319756.07	0.00245	409.92	648.69	1.5	24-HR	ALL	1ST		10122924
507023.92	4319763.78	0.0026	409.47	648.69	1.5	24-HR	ALL	1ST		13010724
507047.76	4319788.75	0.00343	409.38	648.69	1.5	24-HR	ALL	1ST		11020824
507054.68	4319806.01	0.00369	409.45	648.69	1.5	24-HR	ALL	1ST		11020824
507061.6	4319823.28	0.00362	409.47	648.69	1.5	24-HR	ALL	1ST		11020824
507068.52	4319840.54	0.00325	409.38	648.69	1.5	24-HR	ALL	1ST		11020824
507075.44	4319857.81	0.00297	409.19	648.69	1.5	24-HR	ALL	1ST		9010124
507082.36	4319875.07	0.00289	408.85	648.69	1.5	24-HR	ALL	1ST		9010124
507089.28	4319892.34	0.00267	408.66	648.69	1.5	24-HR	ALL	1ST		9010124
507096.2	4319909.6	0.00241	408.51	648.69	1.5	24-HR	ALL	1ST		9010124
507103.12	4319926.87	0.00221	408.47	648.69	1.5	24-HR	ALL	1ST		10022024
507110.03	4319944.13	0.00223	408.5	648.69	1.5	24-HR	ALL	1ST		10013024
507116.95	4319961.4	0.00251	408.54	445.92	1.5	24-HR	ALL	1ST		10013024
507123.87	4319978.66	0.00248	408.45	445.92	1.5	24-HR	ALL	1ST		10013024
507130.79	4319995.93	0.00219	408.32	445.92	1.5	24-HR	ALL	1ST		10013024
507137.71	4320013.19	0.00204	408.43	445.92	1.5	24-HR	ALL	1ST		10022024
506786.93	4319655.86	0.00348	412.57	648.69	1.5	24-HR	ALL	1ST		13012824
506768.24	4319655	0.00351	412.66	648.69	1.5	24-HR	ALL	1ST		13012824
506749.54	4319654.13	0.0037	412.48	648.69	1.5	24-HR	ALL	1ST		13020324
506730.85	4319653.27	0.0039	412.96	648.69	1.5	24-HR	ALL	1ST		13020324
506807.32	4319588.65	0.00301	421.4	648.69	1.5	24-HR	ALL	1ST		13012824
506824.25	4319596.36	0.00291	421.09	648.69	1.5	24-HR	ALL	1ST		13012824
506841.17	4319604.06	0.00282	419.7	648.69	1.5	24-HR	ALL	1ST		13012824
506858.1	4319611.77	0.00278	417.39	648.69	1.5	24-HR	ALL	1ST		13012824
506875.03	4319619.48	0.00274	415.22	648.69	1.5	24-HR	ALL	1ST		13012824
506891.96	4319627.19	0.00268	413.58	648.69	1.5	24-HR	ALL	1ST		13012824
506908.88	4319634.9	0.00258	412.57	648.69	1.5	24-HR	ALL	1ST		13012824
506925.81	4319642.61	0.00252	411.99	648.69	1.5	24-HR	ALL	1ST		13010924
506942.74	4319650.31	0.00262	411.32	648.69	1.5	24-HR	ALL	1ST		13010924
507044.3	4319696.56	0.00211	409.32	648.69	1.5	24-HR	ALL	1ST		10122924
507061.23	4319704.27	0.00204	409.4	648.69	1.5	24-HR	ALL	1ST		13010724
507078.16	4319711.98	0.00221	409.48	648.69	1.5	24-HR	ALL	1ST		13010724
507102	4319736.95	0.00286	409.58	648.69	1.5	24-HR	ALL	1ST		11020824
507108.92	4319754.22	0.0031	409.54	648.69	1.5	24-HR	ALL	1ST		11020824
507115.84	4319771.48	0.00312	409.4	648.69	1.5	24-HR	ALL	1ST		11020824
507122.76	4319788.75	0.00291	409.31	648.69	1.5	24-HR	ALL	1ST		11020824
507129.68	4319806.01	0.00253	409.22	648.69	1.5	24-HR	ALL	1ST		11020824
507136.6	4319823.28	0.00247	409.08	648.69	1.5	24-HR	ALL	1ST		9010124
507143.52	4319840.54	0.00238	408.99	648.69	1.5	24-HR	ALL	1ST		9010124
507150.44	4319857.81	0.00218	408.63	648.69	1.5	24-HR	ALL	1ST		9010124
507157.36	4319875.07	0.00197	408.12	648.69	1.5	24-HR	ALL	1ST		9010124
507164.28	4319892.34	0.00182	407.93	445.79	1.5	24-HR	ALL	1ST		10022024
507171.2	4319909.6	0.00179	407.81	445.88	1.5	24-HR	ALL	1ST		10013024
507178.12	4319926.87	0.00206	407.74	445.92	1.5	24-HR	ALL	1ST		10013024
507185.03	4319944.13	0.00214	407.67	445.92	1.5	24-HR	ALL	1ST		10013024
507191.95	4319961.4	0.002	407.61	445.92	1.5	24-HR	ALL	1ST		10013024
507198.87	4319978.66	0.0017	407.48	445.92	1.5	24-HR	ALL	1ST		10013024
507205.79	4319995.93	0.00166	407.32	445.92	1.5	24-HR	ALL	1ST		10022024
507212.71	4320013.19	0.00161	407.22	445.92	1.5	24-HR	ALL	1ST		10022024
506790.39	4319580.94	0.00302	421.61	648.69	1.5	24-HR	ALL	1ST		13012824
506771.7	4319580.08	0.00312	421.65	648.69	1.5	24-HR	ALL	1ST		13020324
506753	4319579.21	0.00368	422.3	648.69	1.5	24-HR	ALL	1ST		13020324
506734.31	4319578.35	0.00413	424.74	648.69	1.5	24-HR	ALL	1ST		13020324
506655.11	4320009.77	0.02012	415.49	648.69	1.5	24-HR	ALL	1ST		13020324
506635.7	4320009.98	0.02298	416.51	648.69	1.5	24-HR	ALL	1ST		13020324
506616.29	4320010.2	0.02096	417.44	648.69	1.5	24-HR	ALL	1ST		13020324
506596.88	4320010.42	0.01637	418.06	648.69	1.5	24-HR	ALL	1ST		13012924
506577.47	4320010.63	0.02088	419.08	648.69	1.5	24-HR	ALL	1ST		13012924
506558.06	4320010.85	0.01809	421.03	648.69	1.5	24-HR	ALL	1ST		13012924
506538.65	4320011.06	0.02001	422.45	648.69	1.5	24-HR	ALL	1ST		13041424
506519.24	4320011.28	0.01771	423.11	648.69	1.5	24-HR	ALL	1ST		13041424
506499.83	4320011.5	0.01723	423.16	648.69	1.5	24-HR	ALL	1ST		12022324
506480.42	4320011.71	0.01379	423.21	648.69	1.5	24-HR	ALL	1ST		12022324
506693.72	4319990.59	0.01521	414.73	648.69	1.5	24-HR	ALL	1ST		13012824
506674.31	4319990.8	0.01644	414.94	648.69	1.5	24-HR	ALL	1ST		13012824
506654.9	4319991.02	0.01817	415.38	648.69	1.5	24-HR	ALL	1ST		13020324
506635.49	4319991.24	0.01979	416.6	648.69	1.5	24-HR	ALL	1ST		13020324
506616.08	4319991.45	0.01754	417.71	648.69	1.5	24-HR	ALL	1ST		13020324
506596.67	4319991.67	0.01392	418.13	648.69	1.5	24-HR	ALL	1ST		13012924
506577.26	4319991.88	0.01808	418.76	648.69	1.5	24-HR	ALL	1ST		13012924
506557.85	4319992.1	0.01671	420.12	648.69	1.5	24-HR	ALL	1ST		13012924
506538.44	4319992.31	0.0161	420.96	648.69	1.5	24-HR	ALL	1ST		13041424
506519.03	4319992.53	0.01536	421.4	648.69	1.5	24-HR	ALL	1ST		13041424
506499.62	4319992.75	0.01384	421.69	648.69	1.5	24-HR	ALL	1ST		12022324

ANNUAL AVERAGE CONC Maximum 0.00477

X	y
506596.88	4320010.42

* AERMOD (1919 1): G:\LSC_HRA\ 03 - Benzene Ops\03 - Benzene Op s.isc 10/11/2021
* AERMET (14134): 3:44:12 AM
* MODELING OPTI ONS USED: Reg DFAULT CONC ELEV FL GPOL URBA N
* PLOT FILE OF ANNUAL VALUES AVERA GED ACROSS 5 YEARS FOR SO URCE GRO UP: ALL
* FOR A TOTAL OF 652 RECEPTORS.
* FORMA T: (3(1X,F13.5) ,3(1X,F8.2), 2X,A6,2X,A 8,2X,I8.8, 2X,A8)

X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM YRS	NET ID
506703.91	4320437.76	0.001	420.88	432.12	1.5	ANNUAL	ALL	5	
506676.87	4320495.35	0.00083	423.66	431.49	1.5	ANNUAL	ALL	5	
506701.34	4320484.15	0.00071	424.59	431.49	1.5	ANNUAL	ALL	5	
506724.35	4320469.2	0.00067	423.58	432.12	1.5	ANNUAL	ALL	5	
506717.54	4320558.3	0.00046	428.24	432.02	1.5	ANNUAL	ALL	5	
506691.19	4320565.86	0.00064	420.45	432.12	1.5	ANNUAL	ALL	5	
506742.21	4320547.04	0.00037	431.7	431.7	1.5	ANNUAL	ALL	5	
506765.22	4320532.08	0.00032	432.05	432.05	1.5	ANNUAL	ALL	5	
506718.35	4320369.19	0.00131	418.53	418.53	1.5	ANNUAL	ALL	5	
506747.68	4320355.39	0.00117	418.67	445.92	1.5	ANNUAL	ALL	5	
506704.99	4320416.93	0.00111	420.06	430.6	1.5	ANNUAL	ALL	5	
506734.32	4320403.12	0.00099	418.93	432.12	1.5	ANNUAL	ALL	5	
506763.65	4320389.32	0.0009	418.46	445.92	1.5	ANNUAL	ALL	5	
506720.96	4320450.86	0.00084	421.47	432.12	1.5	ANNUAL	ALL	5	
506750.29	4320437.05	0.00078	419.57	432.12	1.5	ANNUAL	ALL	5	
506779.62	4320423.25	0.00072	418.64	445.92	1.5	ANNUAL	ALL	5	
506721.34	4320488.78	0.0006	425.73	432.12	1.5	ANNUAL	ALL	5	
506751.59	4320477.88	0.00049	426.13	432.12	1.5	ANNUAL	ALL	5	
506768.87	4320552.65	0.00031	431.71	432.04	1.5	ANNUAL	ALL	5	
506757.91	4320246.35	0.00212	419.21	648.69	1.5	ANNUAL	ALL	5	
506776.07	4320220.81	0.00215	419.9	445.92	1.5	ANNUAL	ALL	5	
506774.97	4320254.45	0.00172	420.15	445.92	1.5	ANNUAL	ALL	5	
506754.47	4320274.47	0.00178	419.27	445.92	1.5	ANNUAL	ALL	5	
506755.14	4320298.58	0.00152	418.81	445.92	1.5	ANNUAL	ALL	5	
507069.29	4320032.11	0.00055	411.74	445.92	1.5	ANNUAL	ALL	5	
507144.29	4320032.11	0.00041	408.5	445.92	1.5	ANNUAL	ALL	5	
507136.82	4320049.44	0.00043	410.64	445.92	1.5	ANNUAL	ALL	5	
507129.35	4320066.77	0.00044	412.6	445.92	1.5	ANNUAL	ALL	5	
507121.88	4320084.11	0.00045	415.74	445.92	1.5	ANNUAL	ALL	5	
507114.41	4320101.44	0.00045	418.21	445.92	1.5	ANNUAL	ALL	5	
507106.94	4320118.77	0.00045	419.88	445.92	1.5	ANNUAL	ALL	5	
507099.47	4320136.11	0.00045	421.37	445.92	1.5	ANNUAL	ALL	5	
507092	4320153.44	0.00043	423.61	445.92	1.5	ANNUAL	ALL	5	
507084.53	4320170.77	0.00041	425.39	445.92	1.5	ANNUAL	ALL	5	
507077.06	4320188.11	0.00038	427.1	445.92	1.5	ANNUAL	ALL	5	
507069.59	4320205.44	0.00035	429.72	445.92	1.5	ANNUAL	ALL	5	
507219.29	4320032.11	0.00032	407.19	445.92	1.5	ANNUAL	ALL	5	
507211.82	4320049.45	0.00033	407.27	445.92	1.5	ANNUAL	ALL	5	
507204.34	4320066.79	0.00033	407.4	445.92	1.5	ANNUAL	ALL	5	
507196.87	4320084.13	0.00034	408.03	445.92	1.5	ANNUAL	ALL	5	
507189.39	4320101.47	0.00034	409.32	445.92	1.5	ANNUAL	ALL	5	
507181.92	4320118.82	0.00034	410.51	445.92	1.5	ANNUAL	ALL	5	
507174.45	4320136.16	0.00035	411.8	445.92	1.5	ANNUAL	ALL	5	
507166.97	4320153.5	0.00035	413.4	445.92	1.5	ANNUAL	ALL	5	
507159.5	4320170.84	0.00035	414.94	445.92	1.5	ANNUAL	ALL	5	
507152.02	4320188.18	0.00034	416.48	445.92	1.5	ANNUAL	ALL	5	
507144.55	4320205.52	0.00034	417.42	445.92	1.5	ANNUAL	ALL	5	
506837.97	4319876.1	0.00102	411.74	648.69	1.5	ANNUAL	ALL	5	
506712.12	4319999.57	0.00302	414.57	648.69	1.5	ANNUAL	ALL	5	
506715.28	4319990.41	0.00281	414.55	648.69	1.5	ANNUAL	ALL	5	
506716.15	4319971.68	0.00252	414.55	648.69	1.5	ANNUAL	ALL	5	
506717.01	4319952.95	0.00227	414.63	648.69	1.5	ANNUAL	ALL	5	
506717.88	4319934.22	0.00205	414.72	648.69	1.5	ANNUAL	ALL	5	
506718.74	4319915.49	0.00186	414.8	648.69	1.5	ANNUAL	ALL	5	
506790.5	4319906.09	0.00135	413.43	648.69	1.5	ANNUAL	ALL	5	
506756.99	4319898.49	0.0015	414.02	648.69	1.5	ANNUAL	ALL	5	
506738.3	4319897.62	0.0016	414.15	648.69	1.5	ANNUAL	ALL	5	
506719.61	4319896.76	0.00169	414.33	648.69	1.5	ANNUAL	ALL	5	
506810.41	4319896.04	0.0012	412.28	648.69	1.5	ANNUAL	ALL	5	
506776.55	4319880.62	0.0013	413.08	648.69	1.5	ANNUAL	ALL	5	
506757.86	4319879.76	0.00138	413.22	648.69	1.5	ANNUAL	ALL	5	
506739.16	4319878.89	0.00147	413.28	648.69	1.5	ANNUAL	ALL	5	
506720.47	4319878.03	0.00154	413.49	648.69	1.5	ANNUAL	ALL	5	
506794.15	4319850.39	0.00109	411.86	648.69	1.5	ANNUAL	ALL	5	
506825.89	4319864.84	0.00102	411.67	648.69	1.5	ANNUAL	ALL	5	
506759.59	4319842.3	0.00119	412.09	648.69	1.5	ANNUAL	ALL	5	
506740.89	4319841.43	0.00124	412.29	648.69	1.5	ANNUAL	ALL	5	
506722.2	4319840.57	0.00129	412.5	648.69	1.5	ANNUAL	ALL	5	
506796.94	4319813.41	0.00096	411.86	648.69	1.5	ANNUAL	ALL	5	
506813.87	4319821.12	0.00094	411.64	648.69	1.5	ANNUAL	ALL	5	
506830.79	4319828.82	0.00091	411.39	648.69	1.5	ANNUAL	ALL	5	
506847.72	4319836.53	0.00087	411.17	648.69	1.5	ANNUAL	ALL	5	
506780.01	4319805.7	0.00099	411.9	648.69	1.5	ANNUAL	ALL	5	
506761.32	4319804.84	0.00103	412.02	648.69	1.5	ANNUAL	ALL	5	
506742.62	4319803.97	0.00107	412.19	648.69	1.5	ANNUAL	ALL	5	
506723.93	4319803.11	0.0011	412.29	648.69	1.5	ANNUAL	ALL	5	
506797.9	4319775.6	0.00086	411.56	648.69	1.5	ANNUAL	ALL	5	
506830.21	4319790.31	0.00082	411.21	648.69	1.5	ANNUAL	ALL	5	
506862.53	4319805.03	0.00077	410.87	648.69	1.5	ANNUAL	ALL	5	
506966.08	4319865.66	0.00065	410.16	648.69	1.5	ANNUAL	ALL	5	
506763.05	4319767.38	0.0009	411.79	648.69	1.5	ANNUAL	ALL	5	
506744.35	4319766.51	0.00093	412.07	648.69	1.5	ANNUAL	ALL	5	
506725.66	4319765.65	0.00095	412.15	648.69	1.5	ANNUAL	ALL	5	
506800.4	4319738.49	0.00076	411.43	648.69	1.5	ANNUAL	ALL	5	
506817.33	4319746.2	0.00075	411.12	648.69	1.5	ANNUAL	ALL	5	
506834.25	4319753.9	0.00073	410.98	648.69	1.5	ANNUAL	ALL	5	
506851.18	4319761.61	0.00071	410.81	648.69	1.5	ANNUAL	ALL	5	
506868.11	4319769.32	0.00069	410.68	648.69	1.5	ANNUAL	ALL	5	
506885.04	4319777.03	0.00067	410.6	648.69	1.5	ANNUAL	ALL	5	
506993.52	4319840.54	0.00057	409.87	648.69	1.5	ANNUAL	ALL	5	
507000.44	4319857.81	0.00058	409.74	648.69	1.5	ANNUAL	ALL	5	
507007.36	4319875.07	0.00058	409.83	648.69	1.5	ANNUAL	ALL	5	
507048.87	4319978.66	0.00057	410.72	648.69	1.5	ANNUAL	ALL	5	
507055.79	4319995.93	0.00057	410.99	648.69	1.5	ANNUAL	ALL	5	
507062.71	4320013.19	0.00056	411.2	445.92	1.5	ANNUAL	ALL	5	
506783.47	4319730.78	0.00077	411.72	648.69	1.5	ANNUAL	ALL	5	
506764.78	4319729.92	0.00079	411.86	648.69	1.5	ANNUAL	ALL	5	
506746.08	4319729.05	0.00081	411.94	648.69	1.5	ANNUAL	ALL	5	
506727.39	4319728.19	0.00083	412.1	648.69	1.5	ANNUAL	ALL	5	
506803.86	4319663.57	0.00062	411.87	648.69	1.5	ANNUAL	ALL	5	
506820.79	4319671.28	0.00061	411.31	648.69	1.5	ANNUAL	ALL	5	
506837.71	4319678.98	0.0006	411.4	648.69	1.5	ANNUAL	ALL	5	
506854.64	4319686.69	0.00059	411.42	648.69	1.5	ANNUAL	ALL	5	
506871.57	4319694.4	0.00058	411.36	648.69	1.5	ANNUAL	ALL	5	
506888.5	4319702.11	0.00057	411.07	648.69	1.5	ANNUAL	ALL	5	
506905.42	4319709.82	0.00055	410.93	648.69	1.5	ANNUAL	ALL	5	
506922.35	4319717.53	0.00054	410.76	648.69	1.5	ANNUAL	ALL	5	
507006.99	4319756.07	0.00047	409.92	648.69	1.5	ANNUAL	ALL	5	
507023.92	4319763.78	0.00046	409.47	648.69	1.5	ANNUAL	ALL	5	
507047.76	4319788.75	0.00045	409.38	648.69	1.5	ANNUAL	ALL	5	
507054.68	4319806.01	0.00046	409.45	648.69	1.5	ANNUAL	ALL	5	
507061.6	4319823.28	0.00046	409.47	648.69	1.5	ANNUAL	ALL	5	
507068.52	4319840.54	0.00046	409.38	648.69	1.5	ANNUAL	ALL	5	
507075.44	4319857.81	0.00046	409.19	648.69	1.5	ANNUAL	ALL	5	
507082.36	4319875.07	0.00046	408.85	648.69	1.5	ANNUAL	ALL	5	
507089.28	4319892.34	0.00046	408.66	648.69	1.5	ANNUAL	ALL	5	
507096.2	4319909.6	0.00046	408.51	648.69	1.5	ANNUAL	ALL	5	
507103.12	4319926.87	0.00045	408.47	648.69	1.5	ANNUAL	ALL	5	
507110.03	4319944.13	0.00045	408.5	648.69	1.5	ANNUAL	ALL	5	
507116.95	4319961.4	0.00045	408.54	445.92	1.5	ANNUAL	ALL	5	
507123.87	4319978.66	0.00044	408.45	445.92	1.5	ANNUAL	ALL	5	
507130.79	4319995.93	0.00043	408.32	445.92	1.5	ANNUAL	ALL	5	
507137.71	4320013.19	0.00042	408.43	445.92	1.5	ANNUAL	ALL	5	
506786.93	4319655.86	0.00062	412.57	648.69	1.5	ANNUAL	ALL	5	
506768.24	4319655	0.00063	412.66	648.69	1.5	ANNUAL	ALL	5	
506749.54	4319654.13	0.00064	412.48	648.69	1.5	ANNUAL	ALL	5	
506730.85	4319653.27	0.00065	412.96	648.69	1.5	ANNUAL	ALL	5	
506807.32	4319588.65	0.00051	421.4	648.69	1.5	ANNUAL	ALL	5	
506824.25	4319596.36	0.00051	421.09	648.69	1.5	ANNUAL	ALL	5	
506841.17	4319604.06	0.00051	419.7	648.69	1.5	ANNUAL	ALL	5	
506858.1	4319611.77	0.0005	417.39	648.69	1.5	ANNUAL	ALL	5	
506875.03	4319619.48	0.0005	415.22	648.69	1.5	ANNUAL	ALL	5	
506891.96	4319627.19	0.00049	413.58	648.69	1.5	ANNUAL	ALL	5	
506908.88	4319634.9	0.00047	412.57	648.69	1.5	ANNUAL	ALL	5	
506925.81	4319642.61	0.00046	411.99	648.69	1.5	ANNUAL	ALL	5	
506942.74	4319650.31	0.00045	411.32	648.69	1.5	ANNUAL	ALL	5	
507044.3	4319696.56	0.00039	409.32	648.69	1.5	ANNUAL	ALL	5	
507061.23	4319704.27	0.00038	409.4	648.69	1.5	ANNUAL	ALL	5	
507078.16	4319711.98	0.00037	409.48	648.69	1.5	ANNUAL	ALL	5	
507102	4319736.95	0.00037	409.58	648.69	1.5	ANNUAL	ALL	5	
507108.92	4319754.22	0.00037	409.54	648.69	1.5	ANNUAL	ALL	5	
507115.84	4319771.48	0.00037	409.4	648.69	1.5	ANNUAL	ALL	5	
507122.76	4319788.75	0.00038	409.31	648.69	1.5	ANNUAL	ALL	5	
507129.68	4319806.01	0.00038	409.22	648.69	1.5	ANNUAL	ALL	5	
507136.6	4319823.28	0.00038	409.08	648.69	1.5	ANNUAL	ALL	5	
507143.52	4319840.54	0.00037	408.99	648.69	1.5	ANNUAL	ALL	5	
507150.44	4319857.81	0.00037	408.63	648.69	1.5	ANNUAL	ALL	5	
507157.36	4319875.07	0.00037	408.12	648.69	1.5	ANNUAL	ALL	5	
507164.28	4319892.34	0.00037	407.93	445.79	1.5	ANNUAL	ALL	5	
507171.2	4319909.6	0.00037	407.81	445.88	1.5	ANNUAL	ALL	5	
507178.12	4319926.87	0.00036	407.74	445.92	1.5	ANNUAL	ALL	5	
507185.03	4319944.13	0.00036	407.67	445.92	1.5	ANNUAL	ALL	5	
507191.95	4319961.4	0.00035	407.61	445.92	1.5	ANNUAL	ALL	5	
507198.87	4319978.66	0.00035	407.48	445.92	1.5	ANNUAL	ALL	5	
507205.79	4319995.93	0.00034	407.32	445.92	1.5	ANNUAL	ALL	5	
507212.71	4320013.19	0.00033	407.22	445.92	1.5	ANNUAL	ALL	5	
506790.39	4319580.94	0.00051	421.61	648.69	1.5	ANNUAL	ALL	5	
506771.7	4319580.08	0.00052	421.65	648.69	1.5	ANNUAL	ALL	5	
506753	4319579.21	0.00054	422.3	648.69	1.5	ANNUAL	ALL	5	
506734.31	4319578.35	0.00055	424.74	648.69	1.5	ANNUAL	ALL	5	
506655.11	4320009.77	0.00426	415.49	648.69	1.5	ANNUAL	ALL	5	
506635.7	4320009.98	0.0045	416.51	648.69	1.5	ANNUAL	ALL	5	
506616.29	4320010.2	0.00467	417.44	648.69	1.5	ANNUAL	ALL	5	
506596.88	4320010.42	0.00477	418.06	648.69	1.5	ANNUAL	ALL	5	
506577.47	4320010.63	0.00467	419.08	648.69	1.5	ANNUAL	ALL	5	
506558.06	4320010.85	0.00431	421.03	648.69	1.5	ANNUAL	ALL	5	
506538.65	4320011.06	0.00382	422.45	648.69	1.5	ANNUAL	ALL	5	
506519.24	4320011.28	0.00321	423.11	648.69	1.5	ANNUAL	ALL	5	
506499.83	4320011.5	0.00257	423.16	648.69	1.5	ANNUAL	ALL	5	
506480.42	4320011.71	0.00198	423.21	648.69	1.5	ANNUAL	ALL	5	
506693.72	4319990.59	0.00314	414.73	648.69	1.5	ANNUAL	ALL	5	
506674.31	4319990.8	0.00342	414.94	648.69	1.5	ANNUAL	ALL	5	
506654.9	4319991.02	0.00364	415.38	648.69	1.5	ANNUAL	ALL	5	
506635.49	4319991.24	0.00381	416.6	648.69	1.5	ANNUAL	ALL	5	
506616.08	4319991.45	0.00394	417.71	648.69	1.5	ANNUAL	ALL	5	
506596.67	4319991.67	0.00402	418.13	648.69	1.5	ANNUAL	ALL	5	
506577.26	4319991.88	0.00396	418.76	648.69	1.5	ANNUAL	ALL	5	
506557.85	4319992.1	0.00374	420.12	648.69	1.5	ANNUAL	ALL	5	
506538.44	4319992.31	0.00341	420.96	648.69	1.5	ANNUAL	ALL	5	
506519.03	4319992.53	0.00301	421.4	648.69	1.5	ANNUAL	ALL	5	
506499.62	4319992.75	0.00255	421.69	648.69	1.5	ANNUAL	ALL	5	

506480.21	4319992.96	0.09349	422.04	648.69	1.5	1-HR	ALL	1ST	12120618	506480.21	4319992.96	0.01491	422.04	648.69	1.5	24-HR	ALL	1ST	12022324	506480.21	4319992.96	0.00203	422.04	648.69	1.5	ANNUAL	ALL	5
506693.51	4319971.84	0.06727	414.75	648.69	1.5	1-HR	ALL	1ST	12022522	506693.51	4319971.84	0.01379	414.75	648.69	1.5	24-HR	ALL	1ST	13012824	506693.51	4319971.84	0.00279	414.75	648.69	1.5	ANNUAL	ALL	5
506674.1	4319972.06	0.07088	415.05	648.69	1.5	1-HR	ALL	1ST	11120117	506674.1	4319972.06	0.01433	415.05	648.69	1.5	24-HR	ALL	1ST	13012824	506674.1	4319972.06	0.00299	415.05	648.69	1.5	ANNUAL	ALL	5
506654.69	4319972.27	0.07113	415.46	648.69	1.5	1-HR	ALL	1ST	12021704	506654.69	4319972.27	0.01636	415.46	648.69	1.5	24-HR	ALL	1ST	13020324	506654.69	4319972.27	0.00315	415.46	648.69	1.5	ANNUAL	ALL	5
506635.28	4319972.49	0.07205	416.77	648.69	1.5	1-HR	ALL	1ST	13122906	506635.28	4319972.49	0.01716	416.77	648.69	1.5	24-HR	ALL	1ST	13020324	506635.28	4319972.49	0.00327	416.77	648.69	1.5	ANNUAL	ALL	5
506615.87	4319972.7	0.07208	417.86	648.69	1.5	1-HR	ALL	1ST	13020303	506615.87	4319972.7	0.01488	417.86	648.69	1.5	24-HR	ALL	1ST	13020324	506615.87	4319972.7	0.00337	417.86	648.69	1.5	ANNUAL	ALL	5
506596.46	4319972.92	0.09215	417.99	648.69	1.5	1-HR	ALL	1ST	10120323	506596.46	4319972.92	0.01202	417.99	648.69	1.5	24-HR	ALL	1ST	13012924	506596.46	4319972.92	0.00344	417.99	648.69	1.5	ANNUAL	ALL	5
506577.05	4319973.13	0.09334	418.24	648.69	1.5	1-HR	ALL	1ST	11022019	506577.05	4319973.13	0.01582	418.24	648.69	1.5	24-HR	ALL	1ST	13012924	506577.05	4319973.13	0.00341	418.24	648.69	1.5	ANNUAL	ALL	5
506557.64	4319973.35	0.09053	418.86	648.69	1.5	1-HR	ALL	1ST	11022020	506557.64	4319973.35	0.01547	418.86	648.69	1.5	24-HR	ALL	1ST	13012924	506557.64	4319973.35	0.00327	418.86	648.69	1.5	ANNUAL	ALL	5
506538.23	4319973.57	0.0863	419.45	648.69	1.5	1-HR	ALL	1ST	13120308	506538.23	4319973.57	0.01413	419.45	648.69	1.5	24-HR	ALL	1ST	13041424	506538.23	4319973.57	0.00304	419.45	648.69	1.5	ANNUAL	ALL	5
506518.82	4319973.78	0.08488	420	648.69	1.5	1-HR	ALL	1ST	12022521	506518.82	4319973.78	0.01383	420	648.69	1.5	24-HR	ALL	1ST	13041424	506518.82	4319973.78	0.00275	420	648.69	1.5	ANNUAL	ALL	5
506499.41	4319974	0.08124	420.53	648.69	1.5	1-HR	ALL	1ST	13022019	506499.41	4319974	0.01224	420.53	648.69	1.5	24-HR	ALL	1ST	13041424	506499.41	4319974	0.00239	420.53	648.69	1.5	ANNUAL	ALL	5
506480	4319974.21	0.07664	421.06	648.69	1.5	1-HR	ALL	1ST	12022303	506480	4319974.21	0.01308	421.06	648.69	1.5	24-HR	ALL	1ST	12022324	506480	4319974.21	0.00201	421.06	648.69	1.5	ANNUAL	ALL	5
506693.31	4319953.09	0.06125	414.83	648.69	1.5	1-HR	ALL	1ST	13012624	506693.31	4319953.09	0.01243	414.83	648.69	1.5	24-HR	ALL	1ST	13012824	506693.31	4319953.09	0.00249	414.83	648.69	1.5	ANNUAL	ALL	5
506673.9	4319953.31	0.06558	415.22	648.69	1.5	1-HR	ALL	1ST	11120117	506673.9	4319953.31	0.01293	415.22	648.69	1.5	24-HR	ALL	1ST	13020324	506673.9	4319953.31	0.00264	415.22	648.69	1.5	ANNUAL	ALL	5
506654.49	4319953.52	0.06256	415.5	648.69	1.5	1-HR	ALL	1ST	12022019	506654.49	4319953.52	0.01472	415.5	648.69	1.5	24-HR	ALL	1ST	13020324	506654.49	4319953.52	0.00275	415.5	648.69	1.5	ANNUAL	ALL	5
506635.08	4319953.74	0.06518	416.37	648.69	1.5	1-HR	ALL	1ST	13122906	506635.08	4319953.74	0.01496	416.37	648.69	1.5	24-HR	ALL	1ST	13020324	506635.08	4319953.74	0.00284	416.37	648.69	1.5	ANNUAL	ALL	5
506615.67	4319953.95	0.06514	417.07	648.69	1.5	1-HR	ALL	1ST	13020303	506615.67	4319953.95	0.01279	417.07	648.69	1.5	24-HR	ALL	1ST	13020324	506615.67	4319953.95	0.00292	417.07	648.69	1.5	ANNUAL	ALL	5
506596.26	4319954.17	0.08339	417.2	648.69	1.5	1-HR	ALL	1ST	10120323	506596.26	4319954.17	0.01053	417.2	648.69	1.5	24-HR	ALL	1ST	13012924	506596.26	4319954.17	0.00298	417.2	648.69	1.5	ANNUAL	ALL	5
506576.85	4319954.39	0.08502	417.66	648.69	1.5	1-HR	ALL	1ST	11022019	506576.85	4319954.39	0.01392	417.66	648.69	1.5	24-HR	ALL	1ST	13012924	506576.85	4319954.39	0.00297	417.66	648.69	1.5	ANNUAL	ALL	5
506557.44	4319954.6	0.08092	418.46	648.69	1.5	1-HR	ALL	1ST	11022020	506557.44	4319954.6	0.01407	418.46	648.69	1.5	24-HR	ALL	1ST	13012924	506557.44	4319954.6	0.00287	418.46	648.69	1.5	ANNUAL	ALL	5
506538.03	4319954.82	0.08071	419.14	648.69	1.5	1-HR	ALL	1ST	13120308	506538.03	4319954.82	0.01233	419.14	648.69	1.5	24-HR	ALL	1ST	13041424	506538.03	4319954.82	0.0027	419.14	648.69	1.5	ANNUAL	ALL	5
506518.62	4319955.03	0.0763	419.76	648.69	1.5	1-HR	ALL	1ST	12021422	506518.62	4319955.03	0.01245	419.76	648.69	1.5	24-HR	ALL	1ST	13041424	506518.62	4319955.03	0.00248	419.76	648.69	1.5	ANNUAL	ALL	5
506499.21	4319955.25	0.07328	420.33	648.69	1.5	1-HR	ALL	1ST	9010221	506499.21	4319955.25	0.01147	420.33	648.69	1.5	24-HR	ALL	1ST	13041424	506499.21	4319955.25	0.00221	420.33	648.69	1.5	ANNUAL	ALL	5
506479.8	4319955.46	0.06921	420.76	648.69	1.5	1-HR	ALL	1ST	13022019	506479.8	4319955.46	0.01103	420.76	648.69	1.5	24-HR	ALL	1ST	12022324	506479.8	4319955.46	0.00191	420.76	648.69	1.5	ANNUAL	ALL	5
506693.1	4319934.34	0.05485	414.86	648.69	1.5	1-HR	ALL	1ST	9122818	506693.1	4319934.34	0.01117	414.86	648.69	1.5	24-HR	ALL	1ST	13012824	506693.1	4319934.34	0.00223	414.86	648.69	1.5	ANNUAL	ALL	5
506673.69	4319934.56	0.05854	415.28	648.69	1.5	1-HR	ALL	1ST	11120117	506673.69	4319934.56	0.01201	415.28	648.69	1.5	24-HR	ALL	1ST	13020324	506673.69	4319934.56	0.00234	415.28	648.69	1.5	ANNUAL	ALL	5
506654.28	4319934.77	0.05628	415.39	648.69	1.5	1-HR	ALL	1ST	9121223	506654.28	4319934.77	0.01324	415.39	648.69	1.5	24-HR	ALL	1ST	13020324	506654.28	4319934.77	0.00242	415.39	648.69	1.5	ANNUAL	ALL	5
506634.87	4319934.99	0.05871	415.85	648.69	1.5	1-HR	ALL	1ST	13122906	506634.87	4319934.99	0.01313	415.85	648.69	1.5	24-HR	ALL	1ST	13020324	506634.87	4319934.99	0.00249	415.85	648.69	1.5	ANNUAL	ALL	5
506615.46	4319935.2	0.05899	416.27	648.69	1.5	1-HR	ALL	1ST	13020303	506615.46	4319935.2	0.01108	416.27	648.69	1.5	24-HR	ALL	1ST	13020324	506615.46	4319935.2	0.00256	416.27	648.69	1.5	ANNUAL	ALL	5
506596.05	4319935.42	0.07564	416.53	648.69	1.5	1-HR	ALL	1ST	10120323	506596.05	4319935.42	0.00925	416.53	648.69	1.5	24-HR	ALL	1ST	13012924	506596.05	4319935.42	0.00261	416.53	648.69	1.5	ANNUAL	ALL	5
506576.64	4319935.64	0.07746	417.29	648.69	1.5	1-HR	ALL	1ST	11022019	506576.64	4319935.64	0.0123	417.29	648.69	1.5	24-HR	ALL	1ST	13012924	506576.64	4319935.64	0.00261	417.29	648.69	1.5	ANNUAL	ALL	5
506557.23	4319935.85	0.07171	418.38	648.69	1.5	1-HR	ALL	1ST	11022020	506557.23	4319935.85	0.01278	418.38	648.69	1.5	24-HR	ALL	1ST	13012924	506557.23	4319935.85	0.00253	418.38	648.69	1.5	ANNUAL	ALL	5
506537.82	4319936.07	0.07347	419.17	648.69	1.5	1-HR	ALL	1ST	13120308	506537.82	4319936.07	0.01078	419.17	648.69	1.5	24-HR	ALL	1ST	13041424	506537.82	4319936.07	0.0024	419.17	648.69	1.5	ANNUAL	ALL	5
506518.41	4319936.28	0.07172	419.81	648.69	1.5	1-HR	ALL	1ST	11011902	506518.41	4319936.28	0.01116	419.81	648.69	1.5	24-HR	ALL	1ST	13041424	506518.41	4319936.28	0.00224	419.81	648.69	1.5	ANNUAL	ALL	5
506499	4319936.5	0.06839	420.34	648.69	1.5	1-HR	ALL	1ST	13011024	506499	4319936.5	0.01061	420.34	648.69	1.5	24-HR	ALL	1ST	13041424	506499	4319936.5	0.00203	420.34	648.69	1.5	ANNUAL	ALL	5
506479.59	4319936.72	0.06682	420.62	648.69	1.5	1-HR	ALL	1ST	13022019	506479.59	4319936.72	0.00942	420.62	648.69	1.5	24-HR	ALL	1ST	13041424	506479.59	4319936.72	0.0018	420.62	648.69	1.5	ANNUAL	ALL	5
506692.89	4319915.59	0.05243	414.75	648.69	1.5	1-HR	ALL	1ST	11120117	506692.89	4319915.59	0.01001	414.75	648.69	1.5	24-HR	ALL	1ST	13012824	506692.89	4319915.59	0.002	414.75	648.69	1.5	ANNUAL	ALL	5
506673.48	4319915.81	0.05291	414.94	648.69	1.5	1-HR	ALL	1ST	12021704	506673.48	4319915.81	0.0111	414.94	648.69	1.5	24-HR	ALL	1ST	13020324	506673.48	4319915.81	0.00208	414.94	648.69	1.5	ANNUAL	ALL	5
506654.07	4319916.02	0.05137	414.79	648.69	1.5	1-HR	ALL	1ST	9121223	506654.07	4319916.02	0.01191	414.79	648.69	1.5	24-HR	ALL	1ST	13020324	506654.07	4319916.02	0.00214	414.79	648.69	1.5	ANNUAL	ALL	5
506634.66	4319916.24	0.05271	415.3	648.69	1.5	1-HR	ALL	1ST	13122906	506634.66	4319916.24	0.01158	415.3	648.69	1.5	24-HR	ALL	1ST	13020324	506634.66	4319916.24	0.0022	415.3	648.69	1.5	ANNUAL	ALL	5
506615.25	4319916.46	0.05367	416.09	648.69	1.5	1-HR	ALL	1ST	13020303	506615.25	4319916.46	0.00969	416.09	648.69	1.5	24-HR	ALL	1ST	13020324	506615.25	4319916.46	0.00226	416.09	648.69	1.5	ANNUAL	ALL	5
506595.84	4319916.67	0.06908	416.92	648.69	1.5	1-HR	ALL	1ST	10120323	506595.84	4319916.67	0.00822	416.92	648.69	1.5	24-HR	ALL	1ST	13012924	506595.84	4319916.67	0.00231	416.92	648.69	1.5	ANNUAL	ALL	5
506576.43	4319916.89	0.07098	417.89	648.69	1.5	1-HR	ALL	1ST	12012619	506576.43	4319916.89	0.0109	417.89	648.69	1.5	24-HR	ALL	1ST	13012924	506576.43	4319916.89	0.00231	417.89	648.69	1.5	ANNUAL	ALL	5
506557.02	4319917.1	0.06384	418.8	648.69	1.5	1-HR	ALL	1ST	13012905	506557.02	4319917.1	0.01158	418.8	648.69	1.5	24-HR	ALL	1ST	13012924	506557.02	4319917.1	0.00225	418.8	648.69	1.5	ANNUAL	ALL	5
506537.61	4319917.32	0.06613	419.34	648.69	1.5	1-HR	ALL	1ST	11010820	506537.61	4319917.32	0.00995	419.34	648.69	1.5	24-HR	ALL	1ST	13012924	506537.61	4319917.32	0.00215	419.34	648.69	1.5	ANNUAL	ALL	5
506518.2	4319917.54	0.06596	419.67	648.69	1.5	1-HR	ALL	1ST	11011902	506518.2	4319917.54	0.01002	419.67	648.69	1.5	24-HR	ALL	1ST	13041424	506518.2	4319917.54	0.00203	419.67	648.69	1.5	ANNUAL	ALL	5
506498.79	4319917.75	0.06394	419.94	648.69	1.5	1-HR	ALL	1ST	12022521	506498.79	4319917.75	0.0098	419.94	648.69	1.5	24-HR	ALL	1ST	13041424	506498.79	4319917.75	0.00187	419.94	648.69	1.5	ANNUAL	ALL	5
506479.38	4319917.97	0.06156	420.22	648.69	1.5	1-HR	ALL	1ST	9010221	506479.38	4319917.97	0.00898	420.22	648.69	1.5	24-HR	ALL	1ST	13041424	506479.38	4319917.97	0.00169	420.22	648.69	1.5	ANNUAL	ALL	5
506692.68	4319896.84	0.04915	414.39	648.69	1.5	1-HR	ALL	1ST	11120117	506692.68	4319896.84	0.00909	414.39	648.69	1.5	24-HR	ALL	1ST	13020324	506692.68	4319896.84	0.00181	414.39	648.69	1.5	ANNUAL	ALL	5
506673.27	4319897.06	0.04759	414.44	648.69	1.5	1-HR	ALL	1ST	12022019	506673.27	4319897.06	0.01022	414.44	648.69	1.5	24-HR	ALL	1ST	13020324	506673.27	4319897.06	0.00187	414.44	648.69	1.5	ANNUAL	ALL	5
506653.86	4319897.28	0.04698	414.4	648.69	1.5	1-HR	ALL	1ST	13020307	506653.86	4319897.28	0.01076	414.4	648.69	1.5	24-HR	ALL	1ST	13020324	506653.86	4319897.28	0.00191	414.4	648.69	1.5	ANNUAL	ALL	5
506634.45	4319897.49	0.04779	415.09	648.69	1.5	1-HR	ALL	1ST	10122703	506634.45	4319897.49	0.01029	415.09	648.69	1.5	24-HR	ALL	1ST	13020324	506634.45	4319897.49	0.00196	415.09	648.69	1.5	ANNUAL	ALL	5
506615.04	4319897.71	0.04943	416.08	648.69	1.5	1-HR	ALL	1ST	13011023	506615.04	4319897.71	0.00855	416.08	648.69	1.5	24-HR	ALL	1ST	13020324	506615.04	4319897.71	0.00202	416.08	648.69	1.5	ANNUAL	ALL	5
506595.63	4319897.92	0.06338	417.04	648.69	1.5	1-HR	ALL	1ST	10120323	506595.63	4319897.92	0.00739	417.04	648.69	1.5	24-HR	ALL	1ST	9022624	506595.63	4319897.92	0.00206	417.04	648.69	1.5	ANNUAL	ALL	5
506576.22	4319898.14	0.0654	417.93	648.69	1.5	1-HR	ALL	1ST	12012619	506576.22	4319898.14	0.00974	417.93	648.69	1.5	24-HR	ALL	1ST	13012924	506576.22	4319898.14	0.00206	417.93	648.69	1.5	ANNUAL	ALL	5
506556.81	4319898.35	0.05907	418.5	648.69	1.5	1-HR	ALL	1ST	13012905	506556.81	4319898.35	0.01059	418.5	648.69	1.5	24-HR	ALL	1ST	13012924	506556.81	4319898.35	0.00202	418.5	648.69	1.5	ANNUAL	ALL	5
506537.4	4319898.57	0.06173	419.17	648.69	1.5	1-HR	ALL	1ST	11022020	506537.4	4319898.57	0.00939	419.17	648.69	1.5	24-HR	ALL	1ST	13012924	506537.4	4319898.57	0.00194	419.17	648.69	1.5	ANNUAL	ALL	5
506517.99	4319898.79	0.05981	419.46	648.69	1.5	1-HR	ALL	1ST	13120308	506517.99	4319898.79	0.00901	419.46	648.69	1.5	24-HR	ALL	1ST	13041424	506517.99	4319898.79	0.00184	419.46	648.69	1.5	ANNUAL	ALL	5
506498.58	4319899	0.05837	419.37	648.69	1.5	1-HR	ALL	1ST	12022521	506498.58	4319899	0.00902	419.37	648.69	1.5	24-HR	ALL	1ST	13041424	506498.58	4319899	0.00172	419.37	648.69	1.5	ANNUAL	ALL	5
506479.17	4319899.22	0.05735	419.26	648.69	1.5	1-HR	ALL	1ST	13011022	506479.17	4319899.22	0.0085	419.26	648.69	1.5	24-HR	ALL	1ST	13041424	506479.17	4319899.22	0.00158	419.26	648.69	1.5	ANNUAL	ALL	5
506692.47	4319878.1	0.04475	413.87	648.69	1.5	1-HR	ALL	1ST	11120117	506692.47	4319878.1	0.00855	413.87	648.69	1.5	24-HR	ALL	1ST	13020324	506692.47	4319878.1	0.00163	413.87	648.69	1.5	ANNUAL	ALL	5
506673.06	4319878.31	0.04294	413.83	648.69	1.5	1-HR	ALL	1ST	12022019	506673.06	4319878.31	0.00941	413.83	648.69	1.5	24-HR	ALL	1ST	13020324	506673.06	4319878.31	0.00168	413.83	648.69	1.5	ANNUAL	ALL	5
506653.65	4319878.53	0.04381	414.15	648.69	1.5	1-HR	ALL	1ST	13122906	506653.65	4319878.53	0.00975	414.15	648.69	1.5	24-HR	ALL	1ST	13020324	506653.65	4319878.53	0.00172	414.15	648.69	1.5	ANNUAL	ALL	5
506634.24	4319878.74	0.04452	415.14	648.69	1.5	1-HR	ALL	1ST	10122703	506634.24	4319878.74	0.00921	415.14	648.69	1.5	24-HR	ALL	1ST	13020324	506634.24	4319878.74	0.00177	415.14	648.69	1.5	ANNUAL	ALL	5
506614.83	4319878.96	0.04585	416.18	648.69	1.5	1-HR	ALL	1ST	13011023	506614.83	4319878.96	0.0076	416.18	648.69	1.5	24-HR	ALL	1ST	13020324	506614.83	4319878.96	0.00181	416.18	648.69	1.5	ANNUAL	ALL	5
506595.42	4319879.17	0.05844	416.93	648.69	1.5	1-HR	ALL	1ST	10120323	506595.42	4319879.17	0.00675	416.93	648.69	1.5	24-HR	ALL	1ST	9022624	506595.42	4319879.17	0.00185	416.93	648.69	1.5	ANNUAL	ALL	5
506576.01	4319879.39	0.06054	417.47	648.69	1.5	1-HR	ALL	1ST	12012619	506576.01	4319879.39	0.00877	417.47	648.69	1.5	24-HR	ALL	1ST	13012924	506576.01	4319879.39	0.00185	417.47	648.69	1.5	ANNUAL	ALL	5
506556.6	4319879.61	0.05471	417.52	648.69	1.5	1-HR	ALL	1ST	13012905	506556.6	4319879.61	0.00973	417.52	648.69	1.5	24-HR	ALL	1ST	13012924	506556.6	4319879.61	0.00182	417.52	648.69	1.5	ANNUAL	ALL	5
506537.19	4319879.82	0.05776	418.71	648.69	1.5	1-HR	ALL	1ST	11022020	506537.19	4319879.82	0.00887	418.71	648.69	1.5	24-HR	ALL	1ST	13012924	506537.19	4319879.82	0.00176	418.71	648.69	1.5	ANNUAL	ALL	5
506517.78	4319880.04	0.05702	419.19	648.69	1.5	1-HR	ALL	1ST	13120308	506517.78	4319880.04	0.00812	419.19	648.69	1.5	24-HR	ALL	1ST	13041424	506517.78	4319880.04	0.00168	419.19	648.69	1.5	ANNUAL	ALL	5
506498.37	4319880.25	0.05583	418.6	648.69	1.5	1-HR	ALL	1ST	11011902	506498.37	4319880.25	0.00829	418.6	648.69	1.5	24-HR	ALL	1ST	13041424	506498.37	4319880.25	0.00159	418.6	648.69	1.5	ANNUAL	ALL	5
506478.96	4319880.47	0.05453	417.72	648.69	1.5	1-HR	ALL	1ST	13011024	506478.96	4319880.47	0.008	417.72	648.69	1.5	24-HR	ALL	1ST	13041424	506478.96	4319880.47	0.00148	417.72	648.69	1.5	ANNUAL	ALL	5
506692.06	4319840.6	0.03754	412.81	648.69	1.5	1-HR	ALL	1ST	12021704	506692.06	4319840.6	0.0075	412.81	648.69	1.5	24-HR	ALL	1ST	13020324	506692.06	4319840.6	0.00135	412.81	648.69	1.5	ANNUAL	ALL	5
506672.65	4319840.81	0.03677	413	648.69	1.5	1-HR	ALL	1ST	9121223	506672.65	4319840.81	0.008	413	648.69	1.5	24-HR	ALL	1ST	13020324	506672.65	4319840.81	0.00138	413	648.69	1.5	ANNUAL	ALL	5
506653.24	4319841.03	0.03827	413.28	648.69	1.5	1-HR	ALL	1ST	13122906	506653.24	4319841.03	0.00806	413.28	648.69	1.5	24-HR	ALL	1ST	13020324	506653.24	4319841.03	0.00141	413.28	648.69	1.5	ANNUAL	ALL	5
506633.83	4319841.24	0.03832	413.73	648.69	1.5	1-HR	ALL	1ST	10122703	506633.83	4319841.24	0.00742	413.73	648.69	1.5	24-HR	ALL	1ST	13020324	506633.83	4319841.24	0.00144	413.73	648.69	1.5	ANNUAL	ALL	5
506614.42	4319841.46	0.03944	414.28	648.69	1.5	1-HR	ALL	1ST	13011023	506614.42	4319841.46	0.00606	414.28	648.69	1.5	24-HR	ALL	1ST	13020324	506614.42	4319841.46	0.00148	414.28	648.69	1.5	ANNUAL	ALL	5
506595.01	4319841.68	0.04982	414.87	648.69	1.5	1-HR	ALL	1ST	10120323	506595.01	4319841.68	0.00566	414.87	648.69	1.5	24-HR	ALL	1ST	9022624	506595.01	4319841.68	0.00151	414.87	648.69	1.5	ANNUAL	ALL	5
506575.6	4319841.89	0.0524	415.47	648.69	1.5	1-HR	ALL	1ST	9022619	506575.6	4319841.89	0.00714	415.47	648.69	1.5	24-HR	ALL	1ST	13012924	506575.6	4319841.89	0.00152	415.47	648.69	1.5	ANNUAL	ALL	5
506556.19	4319842.11	0.04885	416.29	648.69	1.5	1-HR	ALL	1ST	11022019	506556.19	4319842.11	0.00818	416.29	648.69	1.5	24-HR	ALL	1ST	13012924	506556.19	4319842.11	0.00151	416.29	648.69	1.5	ANNUAL	ALL	5
506536.78	4319842.32	0.04938	416.45	648.69	1.5	1-HR	ALL	1ST	11022020	506536.78	4319842.32	0.0079	416.45	648.69	1.5	24-HR	ALL	1ST	13012924	506536.78	4319842.32	0.00147	416.45	648.69	1.5	ANNUAL	ALL	5
506517.37	4319842.54	0.04948	416.29	648.69	1.5	1-HR	ALL	1ST	13120308	506517.37	4319842.54	0.00666	416.29	648.69	1.5	24-HR	ALL	1ST	13041424	506517.37	4319842.54	0.00142	416.29	648.69	1.5	ANNUAL	ALL	5
506497.96	4319842.76	0.04873	415.98	648.69	1.5	1-HR	ALL	1ST	11011902	506497.96	4319842.76	0.00696	415.98	648.69	1.5	24-HR	ALL	1ST	13041424	506497.96	4319842.76	0.00136	415.98	648.69	1.5	ANNUAL	ALL	5
506478.55	4319842.97	0.04681	415.58	648.69	1.5	1-HR	ALL	1ST	12022521	506478.55	4319842.97	0.0069	415.58	648.69	1.5	24-HR	ALL	1ST	13041424	506478.55	4319842.97	0.00128	415.58	648.69	1.5	ANNUAL	ALL	5
506691.64	4319803.1	0.03189	412.64	648.69	1.5	1-HR	ALL	1ST	12022019	506691.64	4319803.1	0.00661	412.64	648.69	1.5	24-HR	ALL	1ST	13020324	506691.64	4319803.1	0.00114	412.64	648.69	1.5	ANNUAL	ALL	5
506672.23	4319803.32	0.03199	412.8	648.69	1.5	1-HR	ALL	1ST	13020307	506672.23	4319803.32	0.00688	412.8	648.69	1.5	24-HR	ALL	1ST	13020324	506672.23	4319803.32	0.00116	412.8	648.69	1.5	ANNUAL	ALL	5
506652.82	4319803.53	0.03311	412.98	648.69	1.5	1-HR	ALL	1ST	13122906	506652.82	4319803.53	0.00677	412.98	648.69	1.5	24-HR	ALL	1ST	13020324	506652.82	4319803.53	0.00118	412.98	648.69	1.5	ANNUAL	ALL	5
506633.41	4319803.75	0.03315	413.2	648.69	1.5	1-HR	ALL	1ST	10122703	506633.41	4319803.75	0.00611	413.2	648.69	1.5	24-HR	ALL	1ST	13020324	506633.41	4319803.75	0.00121	413.2	648.69	1.5	ANNUAL	ALL	5
506614	4319803.96	0.03443	413.45	648.69	1.5	1-HR	ALL	1ST	13011023	506614	4319803.96	0.00496	413.45	648.69	1.5	24-HR	ALL	1ST	13020324	506614	4319803.96	0.00124	413.45	648.69	1.5	ANNUAL	ALL	5
506594.59	4319804.18	0.04304	413.72	648.69	1.5	1-HR	ALL	1ST	10120323	506594.59	4319804.18	0.00483	413.72	648.69	1.5	24-HR	ALL	1ST	9022624	506594.59	4319804.18	0.00126	413.72	648.69	1.5	ANNUAL	ALL	5
506575.18	4319804.39	0.04567	413.97	648.69	1.5	1-HR	ALL	1ST	9022619	506575.18	4319804.39	0.00588	413.97	648.69	1.5	24-HR	ALL	1ST	13012924	506575.18	4319804.39	0.00127	413.97	648.69	1.5	ANNUAL	ALL	5
506555.77	4319804.61	0.04342	413.91	648.69	1.5	1-HR	ALL	1ST	11022019	506555.77	4319804.61	0.00681	413.91	648.69	1.5	24-HR	ALL	1ST	13012924	506555.77	4319804.61	0.00126	413.91	648.69	1.5	ANNUAL	ALL	5
506536.36	4319804.83	0.04084	414.24	648.69	1.5	1-HR	ALL	1ST	11022020	506536.36	4319804.83	0.00686	414.24	648.69	1.5	24-HR	ALL	1ST	13012924	506536.36	4319804.83	0.00123	414.24	648.69	1.5	ANNUAL	ALL	5
506516.95	4319805.04	0.04275	414.51	648.69	1.5	1-HR	ALL	1ST	11022020	506516.95	4319805.04	0.00604	414.51	648.69	1.5	24-HR	ALL	1ST	13012924	506516.95	4319805.04	0.0012	414.51	648.69	1.5	ANNUAL	ALL	5
506497.54	4319805.26	0.043	414.66	648.69	1.5	1-HR	ALL	1ST	13120308	506497.54	4319805.26	0.00583	414.66	648.69	1.5	24-HR	ALL	1ST	13041424	506497.54	4319805.26	0.00116	414.66	648.69	1.5	ANNUAL	ALL	5
506478.13	4319805.47	0.04266	414.8	648.69	1.5	1-HR	ALL	1ST	11011902	506478.13	4319805.47	0.00592	414.8	648.69	1.5	24-HR	ALL	1ST	13041424	506478.13	4319805.47	0.00111	414.8	648.69	1.5	ANNUAL	ALL	5
506691.22	4319765.6	0.02811	412.45	648.69	1.5	1-HR	ALL	1ST	9121223	506691.22	4319765.6	0.00583	412.45	648.69	1.5	24-HR	ALL	1ST	13020324	506691.22	4319765.6	0.00098	412.45	648.69	1.5	ANNUAL	ALL	5
506671.81	4319765.82	0.0289	412.57	648.69	1.5	1-HR	ALL	1ST	13122906	506671.81	4319765.82	0.00595	412.57	648.69	1.5	24-HR	ALL	1ST	13020324	506671.81	4319765.82	0.00099	412.57	648.69	1.5	ANNUAL	ALL	5
506652.4	4319766.03	0.02846	412.82	648.69	1.5	1-HR	ALL	1ST	13122906	506652.4	4319766.03	0.00575	412.82	648.69	1.5	24-HR	ALL	1ST	13020324	506652.4	4319766.03	0.00101	412.82	648.69	1.5	ANNUAL	ALL	5
506632.99	4319766.25	0.02932	413.08	648.69	1.5	1-HR	ALL	1ST	13020303	506632.99	4319766.25	0.00512	413.08	648.69	1.5	24-HR	ALL	1ST	13020324	506632.99	4319766.25	0.00103	413.08	648.69	1.5	ANNUAL	ALL	5
506613.58	4319766.47	0.03049	413.26	648.69	1.5	1-HR	ALL	1ST	13011023	506613.58	4319766.47	0.00414	413.26	648.69	1.5	24-HR	ALL	1ST	13020324	506613.58	4319766.47	0.00105	413.26	648.69	1.5	ANNUAL	ALL	5
506594.17	4319766.68	0.03796	413.39	648.69	1.5	1-HR	ALL	1ST	10120323	506594.17	4319766.68	0.00422	413.39	648.69	1.5	24-HR	ALL	1ST	11020724	506594.17	4319766.68	0.00107	413.39	648.69	1.5	ANNUAL	ALL	5
506574.76	4319766.9	0.04043	413.53	648.69	1.5	1-HR	ALL	1ST	9022619	506574.76	4319766.9	0.00496	413.53	648.69	1.5	24-HR	ALL	1ST	13012924	506574.76	4319766.9	0.00108	413.53	648.69	1.5	ANNUAL	ALL	5
506555.35	4319767.11	0.03902	413.39	648.69	1.5	1-HR	ALL	1ST	11022019	506555.35	4319767.11	0.00581	413.39	648.69	1.5	24-HR	ALL	1ST	13012924	506555.35	4319767.11	0.00107	413.39	648.69	1.5	ANNUAL	ALL	5
506535.94	4319767.33	0.03592	413.88	648.69	1.5	1-HR	ALL	1ST	13012905	506535.94	4319767.33	0.00605	413.88	648.69	1.5	24-HR	ALL	1ST	13012924	506535.94	4319767.33	0.00106	413.88	648.69	1.5	ANNUAL	ALL	5
506516.53	4319767.54	0.03848	414.27	648.69	1.5	1-HR	ALL	1ST	11022020	506516.53	4319767.54	0.00555	414.27	648.69	1.5	24-HR	ALL	1ST	13012924	506516.53	4319767.54	0.00103	414.27	648.69	1.5	ANNUAL	ALL	5
506497.12	4319767.76	0.0383	414.47	648.69	1.5	1-HR	ALL	1ST	13120308	506497.12	4319767.76	0.00493	414.47	648.69	1.5	24-HR	ALL	1ST	13041424	506497.12	4319767.76	0.001	414.47	648.69	1.5	ANNUAL	ALL	5
506477.71	4319767.98	0.03723	414.66	648.69	1.5	1-HR	ALL	1ST	11011902	506477.71	4319767.98	0.00511	414.66	648.69	1.5	24-HR	ALL	1ST	13041424	506477.71	4319767.98	0.00097	414.66	648.69	1.5	ANNUAL	ALL	5
506690.8	4319728.1	0.02516	412.38	648.69	1.5	1-HR	ALL	1ST	9121223	506690.8	4319728.1	0.00517	412.38	648.69	1.5	24-HR	ALL	1ST	13020324	506690.8	4319728.1	0.00085	412.38	648.69	1.5	ANNUAL	ALL	5
506671.39	4319728.32	0.02625	412.57	648.69	1.5	1-HR	ALL	1ST	13122906	506671.39	4319728.32	0.00519	412.57	648.69	1.5	24-HR	ALL	1ST	13020324	506671.39	4319728.32	0.00086	412.57	648.69	1.5	ANNUAL	ALL	5
506651.98	4319728.54	0.02596	412.91	648.69	1.5	1-HR	ALL	1ST	10122703	506651.98	4319728.54	0.00494	412.91	648.69	1.5	24-HR	ALL	1ST	13020324	506651.98	4319728.54	0.00088	412.91	648.69	1.5	ANNUAL	ALL	5
506632.57	4319728.75	0.02639	413.07	648.69	1.5	1-HR	ALL	1ST	13020303	506632.57	4319728.75	0.00435	413.07	648.69	1.5	24-HR	ALL	1ST	13020324	506632.57	4319728.75	0.00089	413.07	648.69	1.5	ANNUAL	ALL	5
506613.16	4319728.97	0.02738	413.22	648.69	1.5	1-HR	ALL	1ST	12012703	506613.16	4319728.97	0.00351	413.22	648.69	1.5	24-HR	ALL	1ST	13020324	506613.16	4319728.97	0.00091	413.22	648.69	1.5	ANNUAL	ALL	5
506593.75	4319729.18	0.03391	413.33	648.69	1.5	1-HR	ALL	1ST	10120323	506593.75	4319729.18	0.00375	413.33	648.69	1.5	24-HR	ALL	1ST	11020724	506593.75	4319729.18	0.00093	413.33	648.69	1.5	ANNUAL	ALL	5
506574.34	4319729.4	0.03615	413.35	648.69	1.5	1-HR	ALL	1ST	9022619	506574.34	4319729.4	0.0043	413.35	648.69	1.5	24-HR	ALL	1ST	9022624	506574.34	4319729.4	0.00093	413.35	648.69	1.5	ANNUAL	ALL	5
506554.93	4319729.62	0.03525	413.26	648.69	1.5	1-HR	ALL	1ST	11022019	506554.93	4319729.62	0.00502	413.26	648.69	1.5	24-HR	ALL	1ST	13012924	506554.93	4319729.62	0.00093	413.26	648.69	1.5	ANNUAL	ALL	5
506535.52	4319729.83	0.03218	413.83	648.69	1.5	1-HR	ALL	1ST	13012905	506535.52	4319729.83	0.00536	413.83	648.69	1.5	24-HR	ALL	1ST	13012924	506535.52	4319729.83	0.00092	413.83	648.69	1.5	ANNUAL	ALL	5
506516.11	4319730.05	0.03387	414.05	648.69	1.5	1-HR	ALL	1ST	11022020	506516.11	4319730.05	0.00509	414.05	648.69	1.5	24-HR	ALL	1ST	13012924	506516.11	4319730.05	0.0009	414.05	648.69	1.5	ANNUAL	ALL	5
506496.7	4319730.26	0.03348	414.08	648.69	1.5	1-HR	ALL	1ST	11010820	506496.7	4319730.26	0.00436	414.08	648.69	1.5	24-HR	ALL	1ST	13012924	506496.7	4319730.26	0.00088	414.08	648.69	1.5	ANNUAL	ALL	5
506477.29	4319730.48	0.03387	414.2	648.69	1.5	1-HR	ALL	1ST	13120308	506477.29	4319730.48	0.00442	414.2	648.69	1.5	24-HR	ALL	1ST	13041424	506477.29	4319730.48	0.00085	414.2	648.69	1.5	ANNUAL	ALL	5
506709.38	4319652.89	0.0207	413.77	648.69	1.5	1-HR	ALL	1ST	9121223	506709.38	4319652.89	0.00407	413.77	648.69	1.5	24-HR	ALL	1ST	13020324	506709.38	4319652.89	0.00066	413.77	648.69	1.5	ANNUAL	ALL	5
506689.97	4319653.11	0.02138	414.5	648.69	1.5	1-HR	ALL	1ST	13122906	506689.97	4319653.11	0.00414	414.5	648.69	1.5	24-HR	ALL	1ST	13020324	506689.97	4319653.11	0.00066	414.5	648.69	1.5	ANNUAL	ALL	5
506670.56	4319653.32	0.02124	415.36	648.69	1.5	1-HR	ALL	1ST	13122906	506670.56	4319653.32	0.00406	415.36	648.69	1.5	24-HR	ALL	1ST	13020324	506670.56	4319653.32	0.00067	415.36	648.69	1.5	ANNUAL	ALL	5
506651.15	4319653.54	0.02159	416.15	648.69	1.5	1-HR	ALL	1ST	10122703	506651.15	4319653.54	0.00377	416.15	648.69	1.5	24-HR	ALL	1ST	13020324	506651.15	4319653.54	0.00069	416.15	648.69	1.5	ANNUAL	ALL	5
506631.74	4319653.76	0.02173	416.08	648.69	1.5	1-HR	ALL	1ST	13020303	506631.74	4319653.76	0.00327	416.08	648.69	1.5	24-HR	ALL	1ST	13020324	506631.74	4319653.76	0.0007	416.08	648.69	1.5	ANNUAL	ALL	5
506612.33	4319653.97	0.02309	415.34	648.69	1.5	1-HR	ALL	1ST	12012703	506612.33	4319653.97	0.00285	415.34	648.69	1.5	24-HR	ALL	1ST	11020724	506612.33	4319653.97	0.00071	415.34	648.69	1.5	ANNUAL	ALL	5
506592.92	4319654.19	0.02795	414.4	648.69	1.5	1-HR	ALL	1ST	10120323	506592.92	4319654.19	0.00305	414.4	648.69	1.5	24-HR	ALL	1ST	11020724	506592.92	4319654.19	0.00072	414.4	648.69	1.5	ANNUAL	ALL	5
506573.51	4319654.4	0.0296	413.73	648.69	1.5	1-HR	ALL	1ST	9022619	506573.51	4319654.4	0.00347	413.73	648.69	1.5	24-HR	ALL	1ST	9022624	506573.51	4319654.4	0.00072	413.73	648.69	1.5	ANNUAL	ALL	5
506554.1	4319654.62	0.02904	413.58	648.69	1.5	1-HR	ALL	1ST	11022019	506554.1	4319654.62	0.00386	413.58	648.69	1.5	24-HR	ALL	1ST	13012924	506554.1	4319654.62	0.00072	413.58	648.69	1.5	ANNUAL	ALL	5
506534.69	4319654.84	0.02713	414.03	648.69	1.5	1-HR	ALL	1ST	11022019	506534.69	4319654.84	0.00425	414.03	648.69	1.5	24-HR	ALL	1ST	13012924	506534.69	4319654.84	0.00071	414.03	648.69	1.5	ANNUAL	ALL	5
506515.28	4319655.05	0.02616	414.6	648.69	1.5	1-HR	ALL	1ST	13012905	506515.28	4319655.05	0.00428	414.6	648.69	1.5	24-HR	ALL	1ST	13012924	506515.28	4319655.05	0.0007	414.6	648.69	1.5	ANNUAL	ALL	5
506495.87	4319655.27	0.02825	414.84	648.69	1.5	1-HR	ALL	1ST	11022020	506495.87	4319655.27	0.00392	414.84	648.69	1.5	24-HR	ALL	1ST	13012924	506495.87	4319655.27	0.00069	414.84	648.69	1.5	ANNUAL	ALL	5
506476.46	4319655.48	0.02744	414.63	648.69	1.5	1-HR	ALL	1ST	13120308	506476.46	4319655.48	0.00341	414.63	648.69	1.5	24-HR	ALL	1ST	13120324	506476.46	4319655.48	0.00068	414.63	648.69	1.5	ANNUAL	ALL	5
506708.55	4319577.9	0.03079	429.41	648.69	1.5	1-HR	ALL	1ST	13020307	506708.55	4319577.9	0.00448	429.41	648.69	1.5	24-HR	ALL	1ST	13020324	506708.55	4319577.9	0.00053	429.41	648.69	1.5	ANNUAL	ALL	5
506689.14	4319578.11	0.03129	431.33	648.69	1.5	1-HR	ALL	1ST	9011219	506689.14	4319578.11	0.0046	431.33	648.69	1.5	24-HR	ALL	1ST	13020324	506689.14	4319578.11	0.00052	431.33	648.69	1.5	ANNUAL	ALL	5
506669.73	4319578.33	0.03165	430.78	648.69	1.5	1-HR	ALL	1ST	13020321	506669.73	4319578.33	0.00457	430.78	648.69	1.5	24-HR	ALL	1ST	13020324	506669.73	4319578.33	0.00053	430.78	648.69	1.5	ANNUAL	ALL	5
506650.32	4319578.55	0.02853	426.07	648.69	1.5	1-HR	ALL	1ST	13022422	506650.32	4319578.55	0.004	426.07	648.69	1.5	24-HR	ALL	1ST	13020324	506650.32	4319578.55	0.00057	426.07	648.69	1.5	ANNUAL	ALL	5
506630.91	4319578.76	0.02397	422.68	648.69	1.5	1-HR	ALL	1ST	10020606	506630.91	4319578.76	0.00297	422.68	648.69	1.5	24-HR	ALL	1ST	13020324	506630.91	4319578.76	0.00058	422.68	648.69	1.5	ANNUAL	ALL	5
506611.5	4319578.98	0.01964	420.37	648.69	1.5	1-HR	ALL	1ST	12012703	506611.5	4319578.98	0.00238	420.37	648.69	1.5	24-HR	ALL	1ST	11020724	506611.5	4319578.98	0.00056	420.37	648.69	1.5	ANNUAL	ALL	5
506592.09	4319579.19	0.0235	418.39	648.69	1.5	1-HR	ALL	1ST	10120323	506592.09	4319579.19	0.00255	418.39	648.69	1.5	24-HR	ALL	1ST	11020724	506592.09	4319579.19	0.00057	418.39	648.69	1.5	ANNUAL	ALL	5
506572.68	4319579.41	0.02489	416.44	648.69	1.5	1-HR	ALL	1ST	9022619	506572.68	4319579.41	0.00289	416.44	648.69	1.5	24-HR	ALL	1ST	9022624	506572.68	4319579.41	0.00058	416.44	648.69	1.5	ANNUAL	ALL	5
506553.27	4319579.62	0.02473	415.22	648.69	1.5	1-HR	ALL	1ST	12012619	506553.27	4319579.62	0.00307	415.22	648.69	1.5	24-HR	ALL	1ST	13012924	506553.27	4319579.62	0.00058	415.22	648.69	1.5	ANNUAL	ALL	5
506533.86	4319579.84	0.02405	415.3	648.69	1.5	1-HR	ALL	1ST	11022019	506533.86	4319579.84	0.00344	415.3	648.69	1.5	24-HR	ALL	1ST	13012924	506533.86	4319579.84	0.00057	415.3	648.69	1.5	ANNUAL	ALL	5
506514.45	4319580.06	0.02236	416.28	648.69	1.5	1-HR	ALL	1ST	13012905	506514.45	4319580.06	0.00359	416.28	648.69	1.5	24-HR	ALL	1ST	13012924	506514.45	4319580.06	0.00057	416.28	648.69	1.5	ANNUAL	ALL	5
506495.04	4319580.27	0.02268	417.59	648.69	1.5	1-HR	ALL	1ST	11022020	506495.04	4319580.27	0.00345	417.59	648.69	1.5	24-HR	ALL	1ST	13012924	506495.04	4319580.27	0.00056	417.59	648.69	1.5	ANNUAL	ALL	5
506475.63	4319580.49	0.02365	418.51	648.69	1.5	1-HR	ALL	1ST	11022020	506475.63	4319580.49	0.00309	418.51	648.69	1.5	24-HR	ALL	1ST	13012924	506475.63	4319580.49	0.00055	418.51	648.69	1.5	ANNUAL	ALL	5
506462.36	4320012	0.09951	423.29	648.69	1.5	1-HR	ALL	1ST	12121719	506462.36	4320012	0.00805	423.29	648.69	1.5	24-HR	ALL	1ST	13110224	506462.36	4320012	0.00154	423.29	648.69	1.5	ANNUAL	ALL	5
506426.41	4320012.58	0.08811	423.56	648.69	1.5	1-HR	ALL	1ST	13022320	506426.41	4320012.58	0.00766	423.56	648.69	1.5	24-HR	ALL	1ST	9112724	506426.41	4320012.58	0.00099	423.56	648.69	1.5	ANNUAL	ALL	5
506390.47	4320013.15	0.08248	423.51	648.69	1.5	1-HR	ALL	1ST	10022103	506390.47	4320013.15	0.0061	423.51	648.69	1.5	24-HR	ALL	1ST	12021924	506390.47	4320013.15	0.00073	423.51	648.69	1.5	ANNUAL	ALL	5
506462.06	4319993.25	0.09399	422.23	648.69	1.5	1-HR	ALL	1ST	11011401	506462.06	4319993.25	0.01053	422.23	648.69	1.5	24-HR	ALL	1ST	12022324	506462.06	4319993.25	0.00162	422.23	648.69	1.5	ANNUAL	ALL	5
506426.11	4319993.83	0.0836	422.7	648.69	1.5	1-HR	ALL	1ST	13022320	506426.11	4319993.83	0.00693	422.7	648.69	1.5	24-HR	ALL	1ST	9112724	506426.11	4319993.83	0.00104	422.7	648.69	1.5	ANNUAL	ALL	5
506390.17	4319994.41	0.07623	422.64	648.69	1.5	1-HR	ALL	1ST	10022103	506390.17	4319994.41	0.00581	422.64	648.69	1.5	24-HR	ALL	1ST	12021924	506390.17	4319994.41	0.00076	422.64	648.69	1.5	ANNUAL	ALL	5
506461.76	4319974.51	0.07535	421.5	648.69	1.5	1-HR	ALL	1ST	13012607	506461.76	4319974.51	0.01163	421.5	648.69	1.5	24-HR	ALL	1ST	12022324	506461.76	4319974.51	0.00167	421.5	648.69	1.5	ANNUAL	ALL	5
506425.81	4319975.08	0.07188	421.96	648.69	1.5	1-HR	ALL	1ST	12121719	506425.81	4319975.08	0.00546	421.96	648.69	1.5	24-HR	ALL	1ST	9112724	506425.81	4319975.08	0.00111	421.96	648.69	1.5	ANNUAL	ALL	5
506389.87	4319975.66	0.0563	421.59	648.69	1.5	1-HR	ALL	1ST	13022320	506389.87	4319975.66	0.00473	421.59	648.69	1.5	24-HR	ALL	1ST	9112724	506389.87	4319975.66	0.00085	421.59	648.69	1.5	ANNUAL	ALL	5
506461.46	4319955.76	0.06958	420.82	648.69	1.5	1-HR	ALL	1ST	12022303	506461.46	4319955.76	0.01159	420.82	648.69	1.5	24-HR	ALL	1ST	12022324	506461.46	4319955.76	0.00163	420.82	648.69	1.5	ANNUAL	ALL	5
506443.48	4319956.05	0.0666	420.66	648.69	1.5	1-HR	ALL	1ST	13012607	506443.48	4319956.05	0.00925	420.66	648.69	1.5	24-HR	ALL	1ST	12022324	506443.48	4319956.05	0.00139	420.66	648.69	1.5	ANNUAL	ALL	5
506407.54	4319956.62	0.05655	420.14	648.69	1.5	1-HR	ALL	1ST	12121719	506407.54	4319956.62	0.00436	420.14	648.69	1.5	24-HR	ALL	1ST	9122224	506407.54	4319956.62	0.001	420.14	648.69	1.5	ANNUAL	ALL	5
506371.6	4319957.2	0.04786	419.38	648.69	1.5	1-HR	ALL	1ST	13022320	506371.6	4319957.2	0.00413	419.38	648.69	1.5	24-HR	ALL	1ST	12021924	506371.6	4319957.2	0.00077	419.38	648.69	1.5	ANNUAL	ALL	5
506461.15	4319937.01	0.0633	420.1	648.69	1.5	1-HR	ALL	1ST	12022302	506461.15	4319937.01	0.01066	420.1	648.69	1.5	24-HR	ALL	1ST	12022324	506461.15	4319937.01	0.00157	420.1	648.69	1.5	ANNUAL	ALL	5
506425.21	4319937.59	0.05993	418.55	648.69	1.5	1-HR	ALL	1ST	11011401	506425.21	4319937.59	0.00746	418.55	648.69	1.5	24-HR	ALL	1ST	12022324	506425.21	4319937.59	0.00117	418.55	648.69	1.5	ANNUAL	ALL	5
506389.27	4319938.16	0.05139	417.87	648.69	1.5	1-HR	ALL	1ST	13011119	506389.27	4319938.16	0.00385	417.87	648.69	1.5	24-HR	ALL	1ST	9112724	506389.27	4319938.16	0.00087	417.87	648.69	1.5	ANNUAL	ALL	5
506371.3	4319938.45	0.04899	417.56	648.69	1.5	1-HR	ALL	1ST	13022320	506371.3	4319938.45	0.00381	417.56	648.69	1.5	24-HR	ALL	1ST	9112724	506371.3	4319938.45	0.00076	417.56	648.69	1.5	ANNUAL	ALL	5
506460.85	4319918.26	0.05842	418.94	648.69	1.5	1-HR	ALL	1ST	12022302	506460.85	4319918.26	0.00916	418.94	648.69	1.5	24-HR	ALL	1ST	12022324	506460.85	4319918.26	0.00151	418.94	648.69	1.5	ANNUAL	ALL	5
506424.91	4319918.84	0.05744	417.43	648.69	1.5	1-HR	ALL	1ST	13012607	506424.91	4319918.84	0.00847	417.43	648.69	1.5	24-HR	ALL	1ST	12022324	506424.91	4319918.84	0.00115	417.43	648.69	1.5	ANNUAL	ALL	5
506388.97	4319919.42	0.04769	416.96	648.69	1.5	1-HR	ALL	1ST	13011119	506388.97	4319919.42	0.00427	416.96	648.69	1.5	24-HR	ALL	1ST	9122224	506388.97	4319919.42	0.00086	416.96	648.69	1.5	ANNUAL	ALL	5
506460.55	4319899.52	0.05738	417.78	648.69	1.5	1-HR	ALL	1ST	13022019	506460.55	4319899.52	0.00768	417.78	648.69	1.5	24-HR	ALL	1ST	13041424	506460.55	4319899.52	0.00143	417.78	648.69	1.5	ANNUAL	ALL	5
506424.61	4319900.09	0.05403	416.39	648.69	1.5	1-HR	ALL	1ST	12022305	506424.61	4319900.09	0.00876	416.39	648.69	1.5	24-HR	ALL	1ST	12022324	506424.61	4319900.09	0.00112	416.39	648.69	1.5	ANNUAL	ALL	5
506406.64	4319900.38	0.05208	416.22	648.69	1.5	1-HR	ALL	1ST	13012607	506406.64	4319900.38	0.00693	416.22	648.69	1.5	24-HR	ALL	1ST	12022324	506406.64	4319900.38	0.00097	416.22	648.69	1.5	ANNUAL	ALL	5
506370.69	4319900.96	0.04399	416.77	648.69	1.5	1-HR	ALL	1ST	13011119	506370.69	4319900.96	0.00361	416.77	648.69	1.5	24-HR	ALL	1ST	9122224	506370.69	4319900.96	0.00074	416.77	648.69	1.5	ANNUAL	ALL	5
506460.25	4319880.77	0.05297	416.66	648.69	1.5	1-HR	ALL	1ST	13022019	506460.25	4319880.77	0.00737	416.66	648.69	1.5	24-HR	ALL	1ST	13041424	506460.25	4319880.77	0.00136	416.66	648.69	1.5	ANNUAL	ALL	5
506424.31	4319881.34	0.05041	415.5	648.69	1.5	1-HR	ALL	1ST	12022303	506424.31	4319881.34	0.00837	415.5	648.69	1.5	24-HR	ALL	1ST	12022324	506424.31	4319881.34	0.00108	415.5	648.69	1.5	ANNUAL	ALL	5
506388.37	4319881.92	0.04654	416.37	648.69	1.5	1-HR	ALL	1ST	11011401	506388.37	4319881.92	0.00562	416.37	648.69	1.5	24-HR	ALL	1ST	12022324	506388.37	4319881.92	0.00083	416.37	648.69	1.5	ANNUAL	ALL	5
506459.65	4319843.27	0.04612	415.04	648.69	1.5	1-HR	ALL	1ST	13011024	506459.65	4319843.27	0.00658	415.04	648.69	1.5	24-HR	ALL	1ST	13041424	506459.65	4319843.27	0.0012	415.04	648.69	1.5	ANNUAL	ALL	5
506423.71	4319843.85	0.04274	415.85	648.69	1.5	1-HR	ALL	1ST	13022019	506423.71	4319843.85	0.00647	415.85	648.69	1.5	24-HR	ALL	1ST	12022324	506423.71	4319843.85	0.00101	415.85	648.69	1.5	ANNUAL	ALL	5
506387.76	4319844.43	0.04269	416.27	648.69	1.5	1-HR	ALL	1ST	12022305	506387.76	4319844.43	0.00671	416.27	648.69	1.5	24-HR	ALL	1ST	12022324	506387.76	4319844.43	0.00081	416.27	648.69	1.5	ANNUAL	ALL	5
506459.05	4319805.78	0.04135	415.11	648.69	1.5	1-HR	ALL	1ST	12022521	506459.05	4319805.78	0.00582	415.11	648.69	1.5	24-HR	ALL	1ST	13041424	506459.05	4319805.78	0.00106	415.11	648.69	1.5	ANNUAL	ALL	5
506441.08	4319806.07	0.04026	415.31	648.69	1.5	1-HR	ALL	1ST	13011022	506441.08	4319806.07	0.00556	415.31	648.69	1.5	24-HR	ALL	1ST	13041424	506441.08	4319806.07	0.00099	415.31	648.69	1.5	ANNUAL	ALL	5
506405.13	4319806.64	0.03729	415.75	648.69	1.5	1-HR	ALL	1ST	13022019	506405.13	4319806.64	0.00555	415.75	648.69	1.5	24-HR	ALL	1ST	12022324	506405.13	4319806.64	0.00085	415.75	648.69	1.5	ANNUAL	ALL	5
506369.19	4319807.22	0.03762	416.33	648.69	1.5	1-HR	ALL	1ST	12022305	506369.19	4319807.22	0.006	416.33	648.69	1.5	24-HR	ALL	1ST	12022324	506369.19	4319807.22	0.00069	416.33	648.69	1.5	ANNUAL	ALL	5
506458.45	4319768.28	0.03635	414.77	648.69	1.5	1-HR	ALL	1ST	11011902	506458.45	4319768.28	0.00511	414.77	648.69	1.5	24-HR	ALL	1ST	13041424	506458.45	4319768.28	0.00093	414.77	648.69	1.5	ANNUAL	ALL	5
506422.5	4319768.86	0.03526	415.1	648.69	1.5	1-HR	ALL	1ST	13011022	506422.5	4319768.86	0.00476	415.1	648.69	1.5	24-HR	ALL	1ST	13041424	506422.5	4319768.86	0.00084	415.1	648.69	1.5	ANNUAL	ALL	5
506386.56	4319769.44	0.03292	415.71	648.69	1.5	1-HR	ALL	1ST	13022019	506386.56	4319769.44	0.00483	415.71	648.69	1.5	24-HR	ALL	1ST	12022324	506386.56	4319769.44	0.00072	415.71	648.69	1.5	ANNUAL	ALL	5
506457.85	4319730.79	0.03382	414.13	648.69	1.5	1-HR	ALL	1ST	11011902	506457.85	4319730.79	0.00448	414.13	648.69	1.5	24-HR	ALL	1ST	13041424	506457.85	4319730.79	0.00082	414.13	648.69	1.5	ANNUAL	ALL	5
506421.9	4319731.36	0.03251	414.84	648.69	1.5	1-HR	ALL	1ST	13011024	506421.9	4319731.36	0.00433	414.84	648.69	1.5	24-HR	ALL	1ST	13041424	506421.9	4319731.36	0.00076	414.84	648.69	1.5	ANNUAL	ALL	5
506385.96	4319731.94	0.03193	416.51	648.69	1.5	1-HR	ALL	1ST	13022019	506385.96	4319731.94	0.00387	416.51	648.69	1.5	24-HR	ALL	1ST	13041424	506385.96	4319731.94	0.00068	416.51	648.69	1.5	ANNUAL	ALL	5
506456.64	4319655.8	0.02769	414.6	648.69	1.5	1-HR	ALL	1ST	13120308	506456.64	4319655.8	0.00351	414.6	648.69	1.5	24-HR	ALL	1ST	13041424	506456.64	4319655.8	0.00066	414.6	648.69	1.5	ANNUAL	ALL	5
506438.67	4319656.08	0.02781	414.83	648.69	1.5	1-HR	ALL	1ST	11011902	506438.67	4319656.08	0.00355	414.83	648.69	1.5	24-HR	ALL	1ST	13041424	506438.67	4319656.08	0.00064	414.83	648.69	1.5	ANNUAL	ALL	5
506402.73	4319656.66	0.0268	415.92	648.69	1.5	1-HR	ALL	1ST	12022521	506402.73	4319656.66	0.00348	415.92	648.69	1.5	24-HR	ALL	1ST	13041424	506402.73	4319656.66	0.0006	415.92	648.69	1.5	ANNUAL	ALL	5
506366.78	4319657.24	0.02576	417.46	648.69	1.5	1-HR	ALL	1ST	9010221	506366.78	4319657.24	0.00323	417.46	648.69	1.5	24-HR	ALL	1ST	13041424	506366.78	4319657.24	0.00055	417.46	648.69	1.5	ANNUAL	ALL	5
506455.44	4319580.81	0.02348	418.18	648.69	1.5	1-HR	ALL	1ST	13120308	506455.44	4319580.81	0.00283	418.18	648.69	1.5	24-HR	ALL	1ST	13120324	506455.44	4319580.81	0.00054	418.18	648.69	1.5	ANNUAL	ALL	5
506419.5	4319581.38	0.02332	416.91	648.69	1.5	1-HR	ALL	1ST	11011902	506419.5	4319581.38	0.0029	416.91	648.69	1.5	24-HR	ALL	1ST	13041424	506419.5	4319581.38	0.00052	416.91	648.69	1.5	ANNUAL	ALL	5
506383.55	4319581.96	0.02242	417.14	648.69	1.5	1-HR	ALL	1ST	12022521	506383.55	4319581.96	0.00286	417.14	648.69	1.5	24-HR	ALL	1ST	13041424	506383.55	4319581.96	0.00049	417.14	648.69	1.5	ANNUAL	ALL	5
506339.84	4320036.71	0.06853	423.71	648.69	1.5	1-HR	ALL	1ST	12020524	506339.84	4320036.71	0.00381	423.71	648.69	1.5	24-HR	ALL	1ST	12020524	506339.84	4320036.71	0.00053	423.71	648.69	1.5	ANNUAL	ALL	5
506340.14	4320021.59	0.06987	422.79	648.69	1.5	1-HR	ALL	1ST	12020524	506340.14	4320021.59	0.00388	422.79	648.69	1.5	24-HR	ALL	1ST	12020524	506340.14	4320021.59	0.00055	422.79	648.69	1.5	ANNUAL	ALL	5

506358.5	4320000.97	0.06491	421.95	648.69	1.5	1-HR	ALL	1ST	12022119	506358.5	4320000.97	0.00463	421.95	648.69	1.5	24-HR	ALL	1ST	12021924	506358.5	4320000.97	0.00067	421.95	648.69	1.5	ANNUAL	ALL	5
506337.21	4320053.17	0.07088	424.38	648.69	1.5	1-HR	ALL	1ST	12012601	506337.21	4320053.17	0.00403	424.38	648.69	1.5	24-HR	ALL	1ST	12012624	506337.21	4320053.17	0.0005	424.38	648.69	1.5	ANNUAL	ALL	5
506321.48	4320023.45	0.05231	421.79	648.69	1.5	1-HR	ALL	1ST	12020524	506321.48	4320023.45	0.00291	421.79	648.69	1.5	24-HR	ALL	1ST	12020524	506321.48	4320023.45	0.00059	421.79	648.69	1.5	ANNUAL	ALL	5
506344.49	4319988.5	0.05689	420.6	648.69	1.5	1-HR	ALL	1ST	12022119	506344.49	4319988.5	0.00425	420.6	648.69	1.5	24-HR	ALL	1ST	12021924	506344.49	4319988.5	0.00068	420.6	648.69	1.5	ANNUAL	ALL	5
506318.55	4320055.04	0.06059	422.88	648.69	1.5	1-HR	ALL	1ST	13022722	506318.55	4320055.04	0.0036	422.88	648.69	1.5	24-HR	ALL	1ST	11121524	506318.55	4320055.04	0.0005	422.88	648.69	1.5	ANNUAL	ALL	5
506302.83	4320025.32	0.04187	420.6	648.69	1.5	1-HR	ALL	1ST	12121118	506302.83	4320025.32	0.00252	420.6	648.69	1.5	24-HR	ALL	1ST	10022624	506302.83	4320025.32	0.00057	420.6	648.69	1.5	ANNUAL	ALL	5
506312.13	4319996.65	0.04857	419.37	648.69	1.5	1-HR	ALL	1ST	9021808	506312.13	4319996.65	0.00274	419.37	648.69	1.5	24-HR	ALL	1ST	9021824	506312.13	4319996.65	0.00058	419.37	648.69	1.5	ANNUAL	ALL	5
506330.49	4319976.03	0.0535	419.02	648.69	1.5	1-HR	ALL	1ST	12022119	506330.49	4319976.03	0.00403	419.02	648.69	1.5	24-HR	ALL	1ST	12021924	506330.49	4319976.03	0.00062	419.02	648.69	1.5	ANNUAL	ALL	5
506299.9	4320056.9	0.04705	421.61	648.69	1.5	1-HR	ALL	1ST	10013123	506299.9	4320056.9	0.00288	421.61	648.69	1.5	24-HR	ALL	1ST	11121524	506299.9	4320056.9	0.00055	421.61	648.69	1.5	ANNUAL	ALL	5
506284.17	4320027.18	0.03992	419.66	648.69	1.5	1-HR	ALL	1ST	12012601	506284.17	4320027.18	0.00237	419.66	648.69	1.5	24-HR	ALL	1ST	12122224	506284.17	4320027.18	0.00052	419.66	648.69	1.5	ANNUAL	ALL	5
506293.48	4319998.51	0.04474	418.75	648.69	1.5	1-HR	ALL	1ST	12020524	506293.48	4319998.51	0.00249	418.75	648.69	1.5	24-HR	ALL	1ST	12020524	506293.48	4319998.51	0.00053	418.75	648.69	1.5	ANNUAL	ALL	5
506316.49	4319963.56	0.05003	417.68	648.69	1.5	1-HR	ALL	1ST	12022119	506316.49	4319963.56	0.00379	417.68	648.69	1.5	24-HR	ALL	1ST	12021924	506316.49	4319963.56	0.00057	417.68	648.69	1.5	ANNUAL	ALL	5
506343.89	4319951.01	0.04929	417.77	648.69	1.5	1-HR	ALL	1ST	10022103	506343.89	4319951.01	0.00434	417.77	648.69	1.5	24-HR	ALL	1ST	12021924	506343.89	4319951.01	0.00065	417.77	648.69	1.5	ANNUAL	ALL	5
506281.24	4320058.77	0.03978	420.75	648.69	1.5	1-HR	ALL	1ST	10013123	506281.24	4320058.77	0.00241	420.75	648.69	1.5	24-HR	ALL	1ST	12122224	506281.24	4320058.77	0.00053	420.75	648.69	1.5	ANNUAL	ALL	5
506265.51	4320029.05	0.03709	419.36	648.69	1.5	1-HR	ALL	1ST	13022722	506265.51	4320029.05	0.00233	419.36	648.69	1.5	24-HR	ALL	1ST	11121524	506265.51	4320029.05	0.00048	419.36	648.69	1.5	ANNUAL	ALL	5
506274.82	4320000.38	0.0381	418.52	648.69	1.5	1-HR	ALL	1ST	12020524	506274.82	4320000.38	0.00222	418.52	648.69	1.5	24-HR	ALL	1ST	10022624	506274.82	4320000.38	0.00048	418.52	648.69	1.5	ANNUAL	ALL	5
506284.13	4319971.71	0.04426	418.01	648.69	1.5	1-HR	ALL	1ST	9021808	506284.13	4319971.71	0.00249	418.01	648.69	1.5	24-HR	ALL	1ST	9021824	506284.13	4319971.71	0.00049	418.01	648.69	1.5	ANNUAL	ALL	5
506302.49	4319951.1	0.04661	417.58	648.69	1.5	1-HR	ALL	1ST	12022119	506302.49	4319951.1	0.00356	417.58	648.69	1.5	24-HR	ALL	1ST	12021924	506302.49	4319951.1	0.00052	417.58	648.69	1.5	ANNUAL	ALL	5
506329.89	4319938.54	0.04616	416.68	648.69	1.5	1-HR	ALL	1ST	10022103	506329.89	4319938.54	0.00405	416.68	648.69	1.5	24-HR	ALL	1ST	12021924	506329.89	4319938.54	0.00059	416.68	648.69	1.5	ANNUAL	ALL	5
506357.29	4319925.98	0.04557	417.2	648.69	1.5	1-HR	ALL	1ST	13022320	506357.29	4319925.98	0.00353	417.2	648.69	1.5	24-HR	ALL	1ST	9112724	506357.29	4319925.98	0.00069	417.2	648.69	1.5	ANNUAL	ALL	5
506262.58	4320060.63	0.03821	420.17	648.69	1.5	1-HR	ALL	1ST	13012104	506262.58	4320060.63	0.00239	420.17	648.69	1.5	24-HR	ALL	1ST	10012924	506262.58	4320060.63	0.00049	420.17	648.69	1.5	ANNUAL	ALL	5
506246.86	4320030.91	0.03521	419.28	648.69	1.5	1-HR	ALL	1ST	10013123	506246.86	4320030.91	0.0022	419.28	648.69	1.5	24-HR	ALL	1ST	11121524	506246.86	4320030.91	0.00044	419.28	648.69	1.5	ANNUAL	ALL	5
506256.16	4320002.24	0.03498	418.63	648.69	1.5	1-HR	ALL	1ST	12012601	506256.16	4320002.24	0.00206	418.63	648.69	1.5	24-HR	ALL	1ST	12122224	506256.16	4320002.24	0.00044	418.63	648.69	1.5	ANNUAL	ALL	5
506265.47	4319973.57	0.03981	418.14	648.69	1.5	1-HR	ALL	1ST	12020524	506265.47	4319973.57	0.00221	418.14	648.69	1.5	24-HR	ALL	1ST	12020524	506265.47	4319973.57	0.00045	418.14	648.69	1.5	ANNUAL	ALL	5
506288.48	4319938.63	0.04348	417.9	648.69	1.5	1-HR	ALL	1ST	12022119	506288.48	4319938.63	0.00335	417.9	648.69	1.5	24-HR	ALL	1ST	12021924	506288.48	4319938.63	0.00048	417.9	648.69	1.5	ANNUAL	ALL	5
506315.89	4319926.07	0.0433	417.34	648.69	1.5	1-HR	ALL	1ST	10022103	506315.89	4319926.07	0.00379	417.34	648.69	1.5	24-HR	ALL	1ST	12021924	506315.89	4319926.07	0.00054	417.34	648.69	1.5	ANNUAL	ALL	5
506343.29	4319913.51	0.04238	417.17	648.69	1.5	1-HR	ALL	1ST	13022320	506343.29	4319913.51	0.00328	417.17	648.69	1.5	24-HR	ALL	1ST	9112724	506343.29	4319913.51	0.00062	417.17	648.69	1.5	ANNUAL	ALL	5
506243.93	4320062.5	0.03642	420.36	648.69	1.5	1-HR	ALL	1ST	13012104	506243.93	4320062.5	0.00235	420.36	648.69	1.5	24-HR	ALL	1ST	10012924	506243.93	4320062.5	0.00045	420.36	648.69	1.5	ANNUAL	ALL	5
506234.18	4320014.35	0.03293	418.99	648.69	1.5	1-HR	ALL	1ST	13022722	506234.18	4320014.35	0.00206	418.99	648.69	1.5	24-HR	ALL	1ST	11121524	506234.18	4320014.35	0.00041	418.99	648.69	1.5	ANNUAL	ALL	5
506244.82	4319981.58	0.03395	418.48	648.69	1.5	1-HR	ALL	1ST	12020524	506244.82	4319981.58	0.00195	418.48	648.69	1.5	24-HR	ALL	1ST	10022624	506244.82	4319981.58	0.00041	418.48	648.69	1.5	ANNUAL	ALL	5
506255.46	4319948.82	0.03963	418.36	648.69	1.5	1-HR	ALL	1ST	9021808	506255.46	4319948.82	0.00223	418.36	648.69	1.5	24-HR	ALL	1ST	9021824	506255.46	4319948.82	0.00042	418.36	648.69	1.5	ANNUAL	ALL	5
506292.1	4319918.08	0.04085	417.84	648.69	1.5	1-HR	ALL	1ST	10022103	506292.1	4319918.08	0.00355	417.84	648.69	1.5	24-HR	ALL	1ST	12021924	506292.1	4319918.08	0.00048	417.84	648.69	1.5	ANNUAL	ALL	5
506323.42	4319903.73	0.03749	417.52	648.69	1.5	1-HR	ALL	1ST	13022320	506323.42	4319903.73	0.003	417.52	648.69	1.5	24-HR	ALL	1ST	9112724	506323.42	4319903.73	0.00055	417.52	648.69	1.5	ANNUAL	ALL	5
506354.73	4319889.38	0.04159	417.07	648.69	1.5	1-HR	ALL	1ST	13011119	506354.73	4319889.38	0.00305	417.07	648.69	1.5	24-HR	ALL	1ST	9122224	506354.73	4319889.38	0.00066	417.07	648.69	1.5	ANNUAL	ALL	5
506223.54	4320047.12	0.03326	419.63	648.69	1.5	1-HR	ALL	1ST	13012104	506223.54	4320047.12	0.00207	419.63	648.69	1.5	24-HR	ALL	1ST	10012924	506223.54	4320047.12	0.0004	419.63	648.69	1.5	ANNUAL	ALL	5
506226.99	4320081.62	0.03162	421.12	648.69	1.5	1-HR	ALL	1ST	10012904	506226.99	4320081.62	0.00208	421.12	648.69	1.5	24-HR	ALL	1ST	10012924	506226.99	4320081.62	0.00042	421.12	648.69	1.5	ANNUAL	ALL	5
506191.4	4320034.92	0.02976	419.62	648.69	1.5	1-HR	ALL	1ST	13012104	506191.4	4320034.92	0.00184	419.62	648.69	1.5	24-HR	ALL	1ST	10012924	506191.4	4320034.92	0.00035	419.62	648.69	1.5	ANNUAL	ALL	5
506201.74	4320003.06	0.02971	419.31	648.69	1.5	1-HR	ALL	1ST	13022722	506201.74	4320003.06	0.00185	419.31	648.69	1.5	24-HR	ALL	1ST	11121524	506201.74	4320003.06	0.00035	419.31	648.69	1.5	ANNUAL	ALL	5
506212.09	4319971.21	0.02922	418.72	648.69	1.5	1-HR	ALL	1ST	10022606	506212.09	4319971.21	0.00175	418.72	648.69	1.5	24-HR	ALL	1ST	10022624	506212.09	4319971.21	0.00036	418.72	648.69	1.5	ANNUAL	ALL	5
506222.43	4319939.35	0.03322	418.64	648.69	1.5	1-HR	ALL	1ST	12020318	506222.43	4319939.35	0.00185	418.64	648.69	1.5	24-HR	ALL	1ST	12020324	506222.43	4319939.35	0.00036	418.64	648.69	1.5	ANNUAL	ALL	5
506248	4319900.52	0.03547	418.19	648.69	1.5	1-HR	ALL	1ST	12022119	506248	4319900.52	0.00287	418.19	648.69	1.5	24-HR	ALL	1ST	12021924	506248	4319900.52	0.00038	418.19	648.69	1.5	ANNUAL	ALL	5
506278.45	4319886.57	0.03544	417.75	648.69	1.5	1-HR	ALL	1ST	10022103	506278.45	4319886.57	0.0031	417.75	648.69	1.5	24-HR	ALL	1ST	12021924	506278.45	4319886.57	0.00043	417.75	648.69	1.5	ANNUAL	ALL	5
506308.89	4319872.62	0.0357	417.38	648.69	1.5	1-HR	ALL	1ST	13022320	506308.89	4319872.62	0.00271	417.38	648.69	1.5	24-HR	ALL	1ST	9112724	506308.89	4319872.62	0.00049	417.38	648.69	1.5	ANNUAL	ALL	5
506339.34	4319858.67	0.0366	417.1	648.69	1.5	1-HR	ALL	1ST	13011119	506339.34	4319858.67	0.00298	417.1	648.69	1.5	24-HR	ALL	1ST	9122224	506339.34	4319858.67	0.00059	417.1	648.69	1.5	ANNUAL	ALL	5
506187.96	4320068.1	0.02749	420.24	648.69	1.5	1-HR	ALL	1ST	10012904	506187.96	4320068.1	0.00181	420.24	648.69	1.5	24-HR	ALL	1ST	10012924	506187.96	4320068.1	0.00036	420.24	648.69	1.5	ANNUAL	ALL	5
506153.99	4320038.94	0.0269	419.79	648.69	1.5	1-HR	ALL	1ST	10012904	506153.99	4320038.94	0.00174	419.79	648.69	1.5	24-HR	ALL	1ST	10012924	506153.99	4320038.94	0.00031	419.79	648.69	1.5	ANNUAL	ALL	5
506164.15	4320007.66	0.02615	419.69	648.69	1.5	1-HR	ALL	1ST	10013123	506164.15	4320007.66	0.00156	419.69	648.69	1.5	24-HR	ALL	1ST	10013124	506164.15	4320007.66	0.00031	419.69	648.69	1.5	ANNUAL	ALL	5
506174.3	4319976.39	0.02622	419.54	648.69	1.5	1-HR	ALL	1ST	12012601	506174.3	4319976.39	0.00158	419.54	648.69	1.5	24-HR	ALL	1ST	11121524	506174.3	4319976.39	0.00031	419.54	648.69	1.5	ANNUAL	ALL	5
506184.46	4319945.11	0.02726	419.18	648.69	1.5	1-HR	ALL	1ST	12020524	506184.46	4319945.11	0.00156	419.18	648.69	1.5	24-HR	ALL	1ST	10022624	506184.46	4319945.11	0.00031	419.18	648.69	1.5	ANNUAL	ALL	5
506194.61	4319913.83	0.03077	419.36	648.69	1.5	1-HR	ALL	1ST	9021808	506194.61	4319913.83	0.00173	419.36	648.69	1.5	24-HR	ALL	1ST	9021824	506194.61	4319913.83	0.00032	419.36	648.69	1.5	ANNUAL	ALL	5
506219.72	4319875.71	0.03148	418.64	648.69	1.5	1-HR	ALL	1ST	12022119	506219.72	4319875.71	0.00257	418.64	648.69	1.5	24-HR	ALL	1ST	12021924	506219.72	4319875.71	0.00033	418.64	648.69	1.5	ANNUAL	ALL	5
506249.61	4319862.01	0.03212	418.05	648.69	1.5	1-HR	ALL	1ST	10022103	506249.61	4319862.01	0.00279	418.05	648.69	1.5	24-HR	ALL	1ST	12021924	506249.61	4319862.01	0.00037	418.05	648.69	1.5	ANNUAL	ALL	5
506279.51	4319848.31	0.03132	417.82	648.69	1.5	1-HR	ALL	1ST	13022320	506279.51	4319848.31	0.00239	417.82	648.69	1.5	24-HR	ALL	1ST	9112724	506279.51	4319848.31	0.00042	417.82	648.69	1.5	ANNUAL	ALL	5
506309.4	4319834.61	0.03323	417.33	648.69	1.5	1-HR	ALL	1ST	13011119	506309.4	4319834.61	0.00229	417.33	648.69	1.5	24-HR	ALL	1ST	9112724	506309.4	4319834.61	0.00049	417.33	648.69	1.5	ANNUAL	ALL	5
506339.3	4319820.92	0.03545	416.71	648.69	1.5	1-HR	ALL	1ST	11011401	506339.3	4319820.92	0.00362	416.71	648.69	1.5	24-HR	ALL	1ST	12022324	506339.3	4319820.92	0.00058	416.71	648.69	1.5	ANNUAL	ALL	5
506150.64	4320071.83	0.02133	420.17	648.69	1.5	1-HR	ALL	1ST	12013120	506150.64	4320071.83	0.00157	420.17	648.69	1.5	24-HR	ALL	1ST	11010224	506150.64	4320071.83	0.00031	420.17	648.69	1.5	ANNUAL	ALL	5
506116.61	4320042.87	0.02257	420.74	648.69	1.5	1-HR	ALL	1ST	10012904	506116.61	4320042.87	0.00147	420.74	648.69	1.5	24-HR	ALL	1ST	10012924	506116.61	4320042.87	0.00027	420.74	648.69	1.5	ANNUAL	ALL	5
506126.64	4320012	0.02443	420.42	648.69	1.5	1-HR	ALL	1ST	13012104	506126.64	4320012	0.00151	420.42	648.69	1.5	24-HR	ALL	1ST	10012924	506126.64	4320012	0.00027	420.42	648.69	1.5	ANNUAL	ALL	5
506136.66	4319981.12	0.02427	420.2	648.69	1.5	1-HR	ALL	1ST	10013123	506136.66	4319981.12	0.0015	420.2	648.69	1.5	24-HR	ALL	1ST	11121524	506136.66	4319981.12	0.00027	420.2	648.69	1.5	ANNUAL	ALL	5
506146.69	4319950.24	0.02438	420.18	648.69	1.5	1-HR	ALL	1ST	12012601	506146.69	4319950.24	0.00141	420.18	648.69	1.5	24-HR	ALL	1ST	12012624	506146.69	4319950.24	0.00027	420.18	648.69	1.5	ANNUAL	ALL	5
506156.71	4319919.37	0.02637	420.16	648.69	1.5	1-HR	ALL	1ST	12020524	506156.71	4319919.37	0.00147	420.16	648.69	1.5	24-HR	ALL	1ST	12020524	506156.71	4319919.37	0.00028	420.16	648.69	1.5	ANNUAL	ALL	5
506166.74	4319888.49	0.02877	419.93	648.69	1.5	1-HR	ALL	1ST	9021808	506166.74	4319888.49	0.00162	419.93	648.69	1.5	24-HR	ALL	1ST	9021824	506166.74	4319888.49	0.00028	419.93	648.69	1.5	ANNUAL	ALL	5
506191.52	4319850.86	0.02809	419.41	648.69	1.5	1-HR	ALL	1ST	12022119	506191.52	4319850.86	0.00233	419.41	648.69	1.5	24-HR	ALL	1ST	12021924	506191.52	4319850.86	0.00029	419.41	648.69	1.5	ANNUAL	ALL	5
506221.03	4319837.33	0.0292	418.88	648.69	1.5	1-HR	ALL	1ST	10022103	506221.03	4319837.33	0.00252	418.88	648.69	1.5	24-HR	ALL	1ST	12021924	506221.03	4319837.33	0.00032	418.88	648.69	1.5	ANNUAL	ALL	5
506250.54	4319823.81	0.02738	419.16	648.69	1.5	1-HR	ALL	1ST	13022320	506250.54	4319823.81	0.00212	419.16	648.69	1.5	24-HR	ALL	1ST	9112724	506250.54	4319823.81	0.00036	419.16	648.69	1.5	ANNUAL	ALL	5
506280.05	4319810.29	0.0296	418.95	648.69	1.5	1-HR	ALL	1ST	9012524	506280.05	4319810.29	0.0021	418.95	648.69	1.5	24-HR	ALL	1ST	9112724	506280.05	4319810.29	0.00041	418.95	648.69	1.5	ANNUAL	ALL	5
506309.57	4319796.77	0.0303	418.13	648.69	1.5	1-HR	ALL	1ST	11022605	506309.57	4319796.77	0.00277	418.13	648.69	1.5	24-HR	ALL	1ST	9122224	506309.57	4319796.77	0.00048	418.13	648.69	1.5	ANNUAL	ALL	5
506339.08	4319783.25	0.03381	417.28	648.69	1.5	1-HR	ALL	1ST	13012607	506339.08	4319783.25	0.00476	417.28	648.69	1.5	24-HR	ALL	1ST	12022324	506339.08	4319783.25	0.00057	417.28	648.69	1.5	ANNUAL	ALL	5
506113.33	4320075.56	0.02271	420.9	648.69	1.5	1-HR	ALL	1ST	12013120	506113.33	4320075.56	0.0014	420.9	648.69	1.5	24-HR	ALL	1ST	11010224	506113.33	4320075.56	0.00027	420.9	648.69	1.5	ANNUAL	ALL	5
506079.61	4320045.66	0.01832	421.34	648.69	1.5	1-HR	ALL	1ST	10012904	506079.61	4320045.66	0.00123	421.34	648.69	1.5	24-HR	ALL	1ST	11010224	506079.61	4320045.66	0.00023	421.34	648.69	1.5	ANNUAL	ALL	5
506090.25	4320012.89	0.02303	421.24	648.69	1.5	1-HR	ALL	1ST	10012904	506090.25	4320012.89	0.00147	421.24	648.69	1.5	24-HR	ALL	1ST	10012924	506090.25	4320012.89	0.00024	421.24	648.69	1.5	ANNUAL	ALL	5
506100.88	4319980.13	0.02202	420.91	648.69	1.5	1-HR	ALL	1ST	10013123	506100.88	4319980.13	0.0013	420.91	648.69	1.5	24-HR	ALL	1ST	10013124	506100.88	4319980.13	0.00024	420.91	648.69	1.5	ANNUAL	ALL	5
506111.52	4319947.36	0.02183	421.04	648.69	1.5	1-HR	ALL	1ST	12012601	506111.52	4319947.36	0.00134	421.04	648.69	1.5	24-HR	ALL	1ST	11121524	506111.52	4319947.36	0.00024	421.04	648.69	1.5	ANNUAL	ALL	5
506122.16	4319914.59	0.02382	421.74	648.69	1.5	1-HR	ALL	1ST	10022606	506122.16	4319914.59	0.00139	421.74	648.69	1.5	24-HR	ALL	1ST	10022624	506122.16	4319914.59	0.00023	421.74	648.69	1.5	ANNUAL	ALL	5
506132.8	4319881.83	0.02559	421.21	648.69	1.5	1-HR	ALL	1ST	12020524	506132.8	4319881.83	0.00142	421.21	648.69	1.5	24-HR	ALL	1ST	12020524	506132.8	4319881.83	0.00024	421.21	648.69	1.5	ANNUAL	ALL	5
506143.44	4319849.06	0.02671	420.57	648.69	1.5	1-HR	ALL	1ST	12021822	506143.44	4319849.06	0.00158	420.57	648.69	1.5	24-HR	ALL	1ST	12022124	506143.44	4319849.06	0.00025	420.57	648.69	1.5	ANNUAL	ALL	5
506164.42	4319825.5	0.02492	420.67	648.69	1.5	1-HR	ALL	1ST	12022119	506164.42	4319825.5	0.00213	420.67	648.69	1.5	24-HR	ALL	1ST	12021924	506164.42	4319825.5	0.00026	420.67	648.69	1.5	ANNUAL	ALL	5
506195.73	4319811.15	0.02628	419.84	648.69	1.5	1-HR	ALL	1ST	10022103	506195.73	4319811.15	0.00226	419.84	648.69	1.5	24-HR	ALL	1ST	12021924	506195.73	4319811.15	0.00029	419.84	648.69	1.5	ANNUAL	ALL	5
506227.05	4319796.8	0.0251	420.51	648.69	1.5	1-HR	ALL	1ST	13022320	506227.05	4319796.8	0.00191	420.51	648.69	1.5	24-HR	ALL	1ST	9112724	506227.05	4319796.8	0.00032	420.51	648.69	1.5	ANNUAL	ALL	5
506258.37	4319782.45	0.02726	421.19	648.69	1.5	1-HR	ALL	1ST	9012524	506258.37	4319782.45	0.00194	421.19	648.69	1.5	24-HR	ALL	1ST	9112724	506258.37	4319782.45	0.00036	421.19	648.69	1.5	ANNUAL	ALL	5
506289.69	4319768.1	0.02793	420.94	648.69	1.5	1-HR	ALL	1ST	11022605	506289.69	4319768.1	0.00247	420.94	648.69	1.5	24-HR	ALL	1ST	9122224	506289.69	4319768.1	0.00042	420.94	648.69	1.5	ANNUAL	ALL	5
506321.01	4319753.75	0.03058	419.57	648.69	1.5	1-HR	ALL	1ST	13012607	506321.01	4319753.75	0.00431	419.57	648.69	1.5	24-HR	ALL	1ST	12022324	506321.01	4319753.75	0.0005	419.57	648.69	1.5	ANNUAL	ALL	5
506352.33	4319739.4	0.0301	418.71	648.69	1.5	1-HR	ALL	1ST	12022302	506352.33	4319739.4	0.00494	418.71	648.69	1.5	24-HR	ALL	1ST	12022324	506352.33	4319739.4	0.00059	418.71	648.69	1.5	ANNUAL	ALL	5
506076.01	4320079.29	0.02255	421.14	648.69	1.5	1-HR	ALL	1ST	12013120	506076.01	4320079.29	0.00137	421.14	648.69	1.5	24-HR	ALL	1ST	12013124	506076.01	4320079.29	0.00024	421.14	648.69	1.5	ANNUAL	ALL	5
506004.83	4320053.58	0.0218	422.25	648.69	1.5	1-HR	ALL	1ST	12013120	506004.83	4320053.58	0.00128	422.25	648.69	1.5	24-HR	ALL	1ST	12013124	506004.83	4320053.58	0.00016	422.25	648.69	1.5	ANNUAL	ALL	5
506015.18	4320021.72	0.01998	422.5	648.69	1.5	1-HR	ALL	1ST	10012904	506015.18	4320021.72	0.00122	422.5	648.69	1.5	24-HR	ALL	1ST	10012924	506015.18	4320021.72	0.00016	422.5	648.69	1.5	ANNUAL	ALL	5
506025.52	4319989.86	0.02693	423.75	648.69	1.5	1-HR	ALL	1ST	10012904	506025.52	4319989.86	0.00159	423.75	648.69	1.5	24-HR	ALL	1ST	10012924	506025.52	4319989.86	0.00014	423.75	648.69	1.5	ANNUAL	ALL	5
506035.86	4319958.01	0.02568	424.16	648.69	1.5	1-HR	ALL	1ST	10013123	506035.86	4319958.01	0.00147	424.16	648.69	1.5	24-HR	ALL	1ST	10013124	506035.86	4319958.01	0.00014	424.16	648.69	1.5	ANNUAL	ALL	5
506046.2	4319926.15	0.0251	422.95	648.69	1.5	1-HR	ALL	1ST	13022722	506046.2	4319926.15	0.00147	422.95	648.69	1.5	24-HR	ALL	1ST	11121524	506046.2	4319926.15	0.00015	422.95	648.69	1.5	ANNUAL	ALL	5
506056.55	4319894.3	0.02523	423.07	648.69	1.5	1-HR	ALL	1ST	12012601	506056.55	4319894.3	0.00143	423.07	648.69	1.5	24-HR	ALL	1ST	12012624	506056.55	4319894.3	0.00015	423.07	648.69	1.5	ANNUAL	ALL	5
506066.89	4319862.44	0.02888	424.23	648.69	1.5	1-HR	ALL	1ST	12020524	506066.89	4319862.44	0.0016	424.23	648.69	1.5	24-HR	ALL	1ST	12020524	506066.89	4319862.44	0.00015	424.23	648.69	1.5	ANNUAL	ALL	5
506077.23	4319830.59	0.03017	423.95	648.69	1.5	1-HR	ALL	1ST	12020318	506077.23	4319830.59	0.00168	423.95	648.69	1.5	24-HR	ALL	1ST	12020324	506077.23	4319830.59	0.00015	423.95	648.69	1.5	ANNUAL	ALL	5
506087.57	4319798.73	0.02867	424.2	648.69	1.5	1-HR	ALL	1ST	12021822	506087.57	4319798.73	0.00159	424.2	648.69	1.5	24-HR	ALL	1ST	12022124	506087.57	4319798.73	0.00016	424.2	648.69	1.5	ANNUAL	ALL	5
506107.97	4319775.83	0.02698	424.12	648.69	1.5	1-HR	ALL	1ST	10022103	506107.97	4319775.83	0.00199	424.12	648.69	1.5	24-HR	ALL	1ST	12021924	506107.97	4319775.83	0.00016	424.12	648.69	1.5	ANNUAL	ALL	5
506138.42	4319761.87	0.02837	422.99	648.69	1.5	1-HR	ALL	1ST	10022103	506138.42	4319761.87	0.00209	422.99	648.69	1.5	24-HR	ALL	1ST	12021924	506138.42	4319761.87	0.00019	422.99	648.69	1.5	ANNUAL	ALL	5
506168.87	4319747.92	0.02488	422.83	648.69	1.5	1-HR	ALL	1ST	13022320	506168.87	4319747.92	0.00207	422.83	648.69	1.5	24-HR	ALL	1ST	9112724	506168.87	4319747.92	0.00021	422.83	648.69	1.5	ANNUAL	ALL	5
506199.32	4319733.97	0.03305	425.54	648.69	1.5	1-HR	ALL	1ST	13022320	506199.32	4319733.97	0.00239	425.54	648.69	1.5	24-HR	ALL	1ST	9112724	506199.32	4319733.97	0.00021	425.54	648.69	1.5	ANNUAL	ALL	5
506229.77	4319720.02	0.03484	426.88	648.69	1.5	1-HR	ALL	1ST	12121719	506229.77	4319720.02	0.0021	426.88	648.69	1.5	24-HR	ALL	1ST	9112724	506229.77	4319720.02	0.00024	426.88	648.69	1.5	ANNUAL	ALL	5
506260.21	4319706.07	0.03326	424.36	648.69	1.5	1-HR	ALL	1ST	11022605	506260.21	4319706.07	0.00246	424.36	648.69	1.5	24-HR	ALL	1ST	13110224	506260.21	4319706.07	0.00032	424.36	648.69	1.5	ANNUAL	ALL	5
506290.66	4319692.12	0.02683	421.9	648.69	1.5	1-HR	ALL	1ST	12022305	506290.66	4319692.12	0.00398	421.9	648.69	1.5	24-HR	ALL	1ST	12022324	506290.66	4319692.12	0.00041	421.9	648.69	1.5	ANNUAL	ALL	5
506321.11	4319678.17	0.0254	420.36	648.69	1.5	1-HR	ALL	1ST	12022302	506321.11	4319678.17	0.00408	420.36	648.69	1.5	24-HR	ALL	1ST	12022324	506321.11	4319678.17	0.00048	420.36	648.69	1.5	ANNUAL	ALL	5
506001.39	4320086.75	0.02408	422.72	648.69	1.5	1-HR	ALL	1ST	12013120	506001.39	4320086.75	0.00141	422.72	648.69	1.5	24-HR	ALL	1ST	12013124	506001.39	4320086.75	0.00016	422.72	648.69	1.5	ANNUAL	ALL	5
505930.35	4320060.58	0.02344	423.95	648.69	1.5	1-HR	ALL	1ST	12013120	505930.35	4320060.58	0.00135	423.95	648.69	1.5	24-HR	ALL	1ST	12013124	505930.35	4320060.58	0.00012	423.95	648.69	1.5	ANNUAL	ALL	5
505940.99	4320027.82	0.01841	423.77	648.69	1.5	1-HR	ALL	1ST	12013120	505940.99	4320027.82	0.00108	423.77	648.69	1.5	24-HR	ALL	1ST	12013124	505940.99	4320027.82	0.00012	423.77	648.69	1.5	ANNUAL	ALL	5
505951.63	4319995.05	0.0203	423.87	648.69	1.5	1-HR	ALL	1ST	10012904	505951.63	4319995.05	0.00121	423.87	648.69	1.5	24-HR	ALL	1ST	10012924	505951.63	4319995.05	0.00012	423.87	648.69	1.5	ANNUAL	ALL	5
505962.27	4319962.29	0.02538	425.52	648.69	1.5	1-HR	ALL	1ST	10012904	505962.27	4319962.29	0.00148	425.52	648.69	1.5	24-HR	ALL	1ST	10012924	505962.27	4319962.29	0.00011	425.52	648.69	1.5	ANNUAL	ALL	5
505972.91	4319929.52	0.02345	424.93	648.69	1.5	1-HR	ALL	1ST	10013123	505972.91	4319929.52	0.00134	424.93	648.69	1.5	24-HR	ALL	1ST	10013124	505972.91	4319929.52	0.00011	424.93	648.69	1.5	ANNUAL	ALL	5
505983.54	4319896.75	0.02405	424.47	648.69	1.5	1-HR	ALL	1ST	13022722	505983.54	4319896.75	0.00139	424.47	648.69	1.5	24-HR	ALL	1ST	11121524	505983.54	4319896.75	0.00012	424.47	648.69	1.5	ANNUAL	ALL	5
505994.18	4319863.99	0.02527	425.38	648.69	1.5	1-HR	ALL	1ST	12012601	505994.18	4319863.99	0.00142	425.38	648.69	1.5	24-HR	ALL	1ST	12012624	505994.18	4319863.99	0.00011	425.38	648.69	1.5	ANNUAL	ALL	5
506004.82	4319831.22	0.02577	426.88	648.69	1.5	1-HR	ALL	1ST	12020524	506004.82	4319831.22	0.00143	426.88	648.69	1.5	24-HR	ALL	1ST	12020524	506004.82	4319831.22	0.00011	426.88	648.69	1.5	ANNUAL	ALL	5
506015.46	4319798.46	0.02906	427.78	648.69	1.5	1-HR	ALL	1ST	12020524	506015.46	4319798.46	0.00161	427.78	648.69	1.5	24-HR	ALL	1ST	12020524	506015.46	4319798.46	0.00011	427.78	648.69	1.5	ANNUAL	ALL	5
506026.1	4319765.69	0.03019	428.83	648.69	1.5	1-HR	ALL	1ST	9021808	506026.1	4319765.69	0.00168	428.83	648.69	1.5	24-HR	ALL	1ST	9021824	506026.1	4319765.69	0.00011	428.83	648.69	1.5	ANNUAL	ALL	5
506052.39	4319725.75	0.02683	429.84	648.69	1.5	1-HR	ALL	1ST	10022103	506052.39	4319725.75	0.00172	429.84	648.69	1.5	24-HR	ALL	1ST	12021924	506052.39	4319725.75	0.00011	429.84	648.69	1.5	ANNUAL	ALL	5
506083.71	4319711.4	0.02992	429.18	648.69	1.5	1-HR	ALL	1ST	10022103	506083.71	4319711.4	0.00187	429.18	648.69	1.5	24-HR	ALL	1ST	12021924	506083.71	4319711.4	0.00012	429.18	648.69	1.5	ANNUAL	ALL	5
506115.03	4319697.05	0.02314	426.26	648.69	1.5	1-HR	ALL	1ST	13022320	506115.03	4319697.05	0.00201	426.26	648.69	1.5	24-HR	ALL	1ST	9112724	506115.03	4319697.05	0.00015	426.26	648.69	1.5	ANNUAL	ALL	5
506146.35	4319682.7	0.02875	425.21	648.69	1.5	1-HR	ALL	1ST	13022320	506146.35	4319682.7	0.00203	425.21	648.69	1.5	24-HR	ALL	1ST	9112724	506146.35	4319682.7	0.00017	425.21	648.69	1.5	ANNUAL	ALL	5
506177.67	4319668.35	0.03215	428.25	648.69	1.5	1-HR	ALL	1ST	12121719	506177.67	4319668.35	0.0019	428.25	648.69	1.5	24-HR	ALL	1ST	9112724	506177.67	4319668.35	0.00018	428.25	648.69	1.5	ANNUAL	ALL	5
506208.99	4319654	0.03057	427.47	648.69	1.5	1-HR	ALL	1ST	11022605	506208.99	4319654	0.0021	427.47	648.69	1.5	24-HR	ALL	1ST	13110224	506208.99	4319654	0.00023	427.47	648.69	1.5	ANNUAL	ALL	5
506240.31	4319639.65	0.02894	424.32	648.69	1.5	1-HR	ALL	1ST	9022708	506240.31	4319639.65	0.00306	424.32	648.69	1.5	24-HR	ALL	1ST	12022324	506240.31	4319639.65	0.0003	424.32	648.69	1.5	ANNUAL	ALL	5
506271.63	4319625.3	0.02575	422.52	648.69	1.5	1-HR	ALL	1ST	12022303	506271.63	4319625.3	0.00409	422.52	648.69	1.5	24-HR	ALL	1ST	12022324	506271.63	4319625.3	0.00036	422.52	648.69	1.5	ANNUAL	ALL	5
506302.94	4319610.95	0.02142	420.73	648.69	1.5	1-HR	ALL	1ST	12022302	506302.94	4319610.95	0.00307	420.73	648.69	1.5	24-HR	ALL	1ST	12022324	506302.94	4319610.95	0.00041	420.73	648.69	1.5	ANNUAL	ALL	5
506334.26	4319596.6	0.02232	418.2	648.69	1.5	1-HR	ALL	1ST	9010221	506334.26	4319596.6	0.00268	418.2	648.69	1.5	24-HR	ALL	1ST	13041424	506334.26	4319596.6	0.00045	418.2	648.69	1.5	ANNUAL	ALL	5
505926.76	4320094.22	0.0243	425.25	648.69	1.5	1-HR	ALL	1ST	13122902	505926.76	4320094.22	0.00137	425.25	648.69	1.5	24-HR	ALL	1ST	13122924	505926.76	4320094.22	0.00012	425.25	648.69	1.5	ANNUAL	ALL	5
506339.08	4320071.65	0.07497	425.14	648.69	1.5	1-HR	ALL	1ST	13022722	506339.08	4320071.65	0.00437	425.14	648.69	1.5	24-HR	ALL	1ST	11121524	506339.08	4320071.65	0.0005	425.14	648.69	1.5	ANNUAL	ALL	5
506341.67	4320091.06	0.07773	425.96	648.69	1.5	1-HR	ALL	1ST	13010308	506341.67	4320091.06	0.00437	425.96	648.69	1.5	24-HR	ALL	1ST	10012924	506341.67	4320091.06	0.00049	425.96	648.69	1.5	ANNUAL	ALL	5
506344.26	4320110.47	0.07959	427.01	648.69	1.5	1-HR	ALL	1ST	10012904	506344.26	4320110.47	0.00468	427.01	648.69	1.5	24-HR	ALL	1ST	10012924	506344.26	4320110.47	0.00048	427.01	648.69	1.5	ANNUAL	ALL	5
506320.49	4320074.13	0.06463	423.68	648.69	1.5	1-HR	ALL	1ST	10013123	506320.49	4320074.13	0.00374	423.68	648.69	1.5	24-HR	ALL	1ST	10013124	506320.49	4320074.13	0.00049	423.68	648.69	1.5	ANNUAL	ALL	5
506323.08	4320093.54	0.07183	424.52	648.69	1.5	1-HR	ALL	1ST	10012904	506323.08	4320093.54	0.00428	424.52	648.69	1.5	24-HR	ALL	1ST	10012924	506323.08	4320093.54	0.00049	424.52	648.69	1.5	ANNUAL	ALL	5
506325.67	4320112.95	0.06337	425.34	648.69	1.5	1-HR	ALL	1ST	10012904	506325.67	4320112.95	0.0038	425.34	648.69	1.5	24-HR	ALL	1ST	10012924	506325.67	4320112.95	0.00048	425.34	648.69	1.5	ANNUAL	ALL	5
506301.91	4320076.61	0.05493	422.37	648.69	1.5	1-HR	ALL	1ST	13010308	506301.91	4320076.61	0.00334	422.37	648.69	1.5	24-HR	ALL	1ST	10012924	506301.91	4320076.61	0.00049	422.37	648.69	1.5	ANNUAL	ALL	5
506304.5	4320096.02	0.06103	423.12	648.69	1.5	1-HR	ALL	1ST	10012904	506304.5	4320096.02	0.00371	423.12	648.69	1.5	24-HR	ALL	1ST	10012924	506304.5	4320096.02	0.00048	423.12	648.69	1.5	ANNUAL	ALL	5
506307.09	4320115.43	0.05559	423.79	648.69	1.5	1-HR	ALL	1ST	12013120	506307.09	4320115.43	0.00332	423.79	648.69	1.5	24-HR	ALL	1ST	12013124	506307.09	4320115.43	0.00049	423.79	648.69	1.5	ANNUAL	ALL	5
506283.32	4320079.09	0.04505	421.47	648.69	1.5	1-HR	ALL	1ST	10012904	506283.32	4320079.09	0.0029	421.47	648.69	1.5	24-HR	ALL	1ST	10012924	506283.32	4320079.09	0.00053	421.47	648.69	1.5	ANNUAL	ALL	5
506285.91	4320098.5	0.04869	422.12	648.69	1.5	1-HR	ALL	1ST	10012904	506285.91	4320098.5	0.00304	422.12	648.69	1.5	24-HR	ALL	1ST	10012924	506285.91	4320098.5	0.00048	422.12	648.69	1.5	ANNUAL	ALL	5
506288.5	4320117.91	0.05453	422.67	648.69	1.5	1-HR	ALL	1ST	12013120	506288.5	4320117.91	0.00325	422.67	648.69	1.5	24-HR	ALL	1ST	12013124	506288.5	4320117.91	0.00048	422.67	648.69	1.5	ANNUAL	ALL	5
506264.74	4320081.57	0.03959	420.86	648.69	1.5	1-HR	ALL	1ST	10012904	506264.74	4320081.57	0.00259	420.86	648.69	1.5	24-HR	ALL	1ST	10012924	506264.74	4320081.57	0.0005	420.86	648.69	1.5	ANNUAL	ALL	5
506267.33	4320100.98	0.03439	421.55	648.69	1.5	1-HR	ALL	1ST	12013120	506267.33	4320100.98	0.00248	421.55	648.69	1.5	24-HR	ALL	1ST	11010224	506267.33	4320100.98	0.0005	421.55	648.69	1.5	ANNUAL	ALL	5
506269.92	4320120.39	0.05186	422.22	648.69	1.5	1-HR	ALL	1ST	12013120	506269.92	4320120.39	0.00309	422.22	648.69	1.5	24-HR	ALL	1ST	12013124	506269.92	4320120.39	0.00046	422.22	648.69	1.5	ANNUAL	ALL	5
506246.15	4320084.05	0.0352	421.08	648.69	1.5	1-HR	ALL	1ST	10012904	506246.15	4320084.05	0.00231	421.08	648.69	1.5	24-HR	ALL	1ST	10012924	506246.15	4320084.05	0.00046	421.08	648.69	1.5	ANNUAL	ALL	5
506248.74	4320103.46	0.03676	421.8	648.69	1.5	1-HR	ALL	1ST	12013120	506248.74	4320103.46	0.0023	421.8	648.69	1.5	24-HR	ALL	1ST	11010224	506248.74	4320103.46	0.00046	421.8	648.69	1.5	ANNUAL	ALL	5
506251.33	4320122.87	0.05044	422.53	648.69	1.5	1-HR	ALL	1ST	12013120	506251.33	4320122.87	0.00299	422.53	648.69	1.5	24-HR	ALL	1ST	12013124	506251.33	4320122.87	0.00041	422.53	648.69	1.5	ANNUAL	ALL	5
506230.16	4320105.94	0.04252	422.24	648.69	1.5	1-HR	ALL	1ST	12013120	506230.16	4320105.94	0.00253	422.24	648.69	1.5	24-HR	ALL	1ST	12013124	506230.16	4320105.94	0.00037	422.24	648.69	1.5	ANNUAL	ALL	5
506232.75	4320125.35	0.04867	423.18	648.69	1.5	1-HR	ALL	1ST	12013120	506232.75	4320125.35	0.00286	423.18	648.69	1.5	24-HR	ALL	1ST	12013124	506232.75	4320125.35	0.00037	423.18	648.69	1.5	ANNUAL	ALL	5
506190.4	4320091.49	0.02935	421.37	648.69	1.5	1-HR	ALL	1ST	12013120	506190.4	4320091.49	0.00183	421.37	648.69	1.5	24-HR	ALL	1ST	11010224	506190.4	4320091.49	0.00036	421.37	648.69	1.5	ANNUAL	ALL	5
506192.99	4320110.9	0.04049	422.36	648.69	1.5	1-HR	ALL	1ST	12013120	506192.99	4320110.9	0.00239	422.36	648.69	1.5	24-HR	ALL	1ST	12013124	506192.99	4320110.9	0.00032	422.36	648.69	1.5	ANNUAL	ALL	5
506195.58	4320130.31	0.04241	423.46	648.69	1.5	1-HR	ALL	1ST	13122902	506195.58	4320130.31	0.00242	423.46	648.69	1.5	24-HR	ALL	1ST	9022424	506195.58	4320130.31	0.00031	423.46	648.69	1.5	ANNUAL	ALL	5
506153.23	4320096.45	0.02833	421.24	648.69	1.5	1-HR	ALL	1ST	12013120	506153.23	4320096.45	0.00172	421.24	648.69	1.5	24-HR	ALL	1ST	12013124	506153.23	4320096.45	0.00032	421.24	648.69	1.5	ANNUAL	ALL	5
506155.82	4320115.86	0.03368	422.04	648.69	1.5	1-HR	ALL	1ST	12013120	506155.82	4320115.86	0.00199	422.04	648.69	1.5	24-HR	ALL	1ST	12013124	506155.82	4320115.86	0.00028	422.04	648.69	1.5	ANNUAL	ALL	5
506158.41	4320135.27	0.03778	422.9	648.69	1.5	1-HR	ALL	1ST	9022405	506158.41	4320135.27	0.00232	422.9	648.69	1.5	24-HR	ALL	1ST	13050824	506158.41	4320135.27	0.00028	422.9	648.69	1.5	ANNUAL	ALL	5
506116.06	4320101.41	0.02622	421.39	648.69	1.5	1-HR	ALL	1ST	12013120	506116.06	4320101.41	0.00158	421.39	648.69	1.5	24-HR	ALL	1ST	12013124	506116.06	4320101.41	0.00028	421.39	648.69	1.5	ANNUAL	ALL	5
506118.65	4320120.82	0.02765	421.93	648.69	1.5	1-HR	ALL	1ST	13122902	506118.65	4320120.82	0.00169	421.93	648.69	1.5	24-HR	ALL	1ST	9022424	506118.65	4320120.82	0.00027	421.93	648.69	1.5	ANNUAL	ALL	5
506121.24	4320140.23	0.03443	422.76	648.69	1.5	1-HR	ALL	1ST	9022405	506121.24	4320140.23	0.00231	422.76	648.69	1.5	24-HR	ALL	1ST	13050824	506121.24	4320140.23	0.00025	422.76	648.69	1.5	ANNUAL	ALL	5
506078.89	4320106.37	0.02275	421.62	648.69	1.5	1-HR	ALL	1ST	12013120	506078.89	4320106.37	0.00137	421.62	648.69	1.5	24-HR	ALL	1ST	12013124	506078.89	4320106.37	0.00024	421.62	648.69	1.5	ANNUAL	ALL	5
506081.48	4320125.78	0.02905	422.33	648.69	1.5	1-HR	ALL	1ST	9022405	506081.48	4320125.78	0.00173	422.33	648.69	1.5	24-HR	ALL	1ST	9022424	506081.48	4320125.78	0.00022	422.33	648.69	1.5	ANNUAL	ALL	5
506084.07	4320145.19	0.03103	423.03	648.69	1.5	1-HR	ALL	1ST	9022405	506084.07	4320145.19	0.00232	423.03	648.69	1.5	24-HR	ALL	1ST	13050824	506084.07	4320145.19	0.00022	423.03	648.69	1.5	ANNUAL	ALL	5
506004.54	4320116.29	0.02611	423.4	648.69	1.5	1-HR	ALL	1ST	9022405	506004.54	4320116.29	0.00153	423.4	648.69	1.5	24-HR	ALL	1ST	9022424	506004.54	4320116.29	0.00017	423.4	648.69	1.5	ANNUAL	ALL	5
506007.13	4320135.7	0.02832	424.35	648.69	1.5	1-HR	ALL	1ST	9022405	506007.13	4320135.7	0.00207	424.35	648.69	1.5	24-HR	ALL	1ST	13050824	506007.13	4320135.7	0.00016	424.35	648.69	1.5	ANNUAL	ALL	5
506009.72	4320155.11	0.02946	425.37	648.69	1.5	1-HR	ALL	1ST	9020407	506009.72	4320155.11	0.00255	425.37	648.69	1.5	24-HR	ALL	1ST	13050824	506009.72	4320155.11	0.00016	425.37	648.69	1.5	ANNUAL	ALL	5
505930.2	4320126.21	0.02549	425.31	648.69	1.5	1-HR	ALL	1ST	9022405	505930.2	4320126.21	0.00179	425.31	648.69	1.5	24-HR	ALL	1ST	13050824	505930.2	4320126.21	0.00013	425.31	648.69	1.5	ANNUAL	ALL	5
505932.79	4320145.62	0.02661	426.64	648.69	1.5	1-HR	ALL	1ST	11120201	505932.79	4320145.62	0.00227	426.64	648.69	1.5	24-HR	ALL	1ST	13050824	505932.79	4320145.62	0.00013	426.64	648.69	1.5	ANNUAL	ALL	5
505935.38	4320165.03	0.02801	427.33	648.69	1.5	1-HR	ALL	1ST	11022104	505935.38	4320165.03	0.00244	427.33	648.69	1.5	24-HR	ALL	1ST	13050824	505935.38	4320165.03	0.00013	427.33	648.69	1.5	ANNUAL	ALL	5
506198.66	4320148.44	0.04869	424.61	648.69	1.5	1-HR	ALL	1ST	9022405	506198.66	4320148.44	0.00343	424.61	648.69	1.5	24-HR	ALL	1ST	13050824	506198.66	4320148.44	0.00031	424.61	648.69	1.5	ANNUAL	ALL	5
506161.76	4320155.13	0.0398	423.83	648.69	1.5	1-HR	ALL	1ST	11120201	506161.76	4320155.13	0.00323	423.83	648.69	1.5	24-HR	ALL	1ST	13050824	506161.76	4320155.13	0.00028	423.83	648.69	1.5	ANNUAL	ALL	5
506124.86	4320161.81	0.03595	423.89	648.69	1.5	1-HR	ALL	1ST	9020407	506124.86	4320161.81	0.00307	423.89	648.69	1.5	24-HR	ALL	1ST	13050824	506124.86	4320161.81	0.00025	423.89	648.69	1.5	ANNUAL	ALL	5
506087.96	4320168.5	0.03437	424.15	648.69	1.5	1-HR	ALL	1ST	11022104	506087.96	4320168.5	0.00288	424.15	648.69	1.5	24-HR	ALL	1ST	13050824	506087.96	4320168.5	0.00022	424.15	648.69	1.5	ANNUAL	ALL	5
506014.16	4320181.88	0.03142	425.61	648.69	1.5	1-HR	ALL	1ST	10122602	506014.16	4320181.88	0.00249	425.61	648.69	1.5	24-HR	ALL	1ST	13050824	506014.16	4320181.88	0.00017	425.61	648.69	1.5	ANNUAL	ALL	5
505938.64	4320185.76	0.02864	427.46	648.69	1.5	1-HR	ALL	1ST	12122321	505938.64	4320185.76	0.00219	427.46	648.69	1.5	24-HR	ALL	1ST	13050824	505938.64	4320185.76	0.00013	427.46	648.69	1.5	ANNUAL	ALL	5
506344.82	4320135.08	0.08455	427.59	648.69	1.5	1-HR	ALL	1ST	12013120	506344.82	4320135.08	0.00491	427.59	648.69	1.5	24-HR	ALL	1ST	12013124	506344.82	4320135.08	0.0005	427.59	648.69	1.5	ANNUAL	ALL	5
506326.08	4320134.33	0.07919	425.79	648.69	1.5	1-HR	ALL	1ST	12013120	506326.08	4320134.33	0.00461	425.79	648.69	1.5	24-HR	ALL	1ST	12013124	506326.08	4320134.33	0.0005	425.79	648.69	1.5	ANNUAL	ALL	5
506307.35	4320133.58	0.06988	424.14	648.69	1.5	1-HR	ALL	1ST	12013120	506307.35	4320133.58	0.0041	424.14	648.69	1.5	24-HR	ALL	1ST	12013124	506307.35	4320133.58	0.0005	424.14	648.69	1.5	ANNUAL	ALL	5
506287.95	4320140.61	0.05725	423.08	648.69	1.5	1-HR	ALL	1ST	12013120	506287.95	4320140.61	0.00339	423.08	648.69	1.5	24-HR	ALL	1ST	12013124	506287.95	4320140.61	0.0005	423.08	648.69	1.5	ANNUAL	ALL	5
506269.26	4320139.17	0.05215	422.81	648.69	1.5	1-HR	ALL	1ST	13122902	506269.26	4320139.17	0.00307	422.81	648.69	1.5	24-HR	ALL	1ST	9022424	506269.26	4320139.17	0.00046	422.81	648.69	1.5	ANNUAL	ALL	5
506345.96	4320154.73	0.08668	427.51	648.69	1.5	1-HR	ALL	1ST	13122902	506345.96	4320154.73	0.0053	427.51	648.69	1.5	24-HR	ALL	1ST	13050824	506345.96	4320154.73	0.00056	427.51	648.69	1.5	ANNUAL	ALL	5
506353.06	4320174.9	0.09049	426.9	648.69	1.5	1-HR	ALL	1ST	9020407	506353.06	4320174.9	0.00828	426.9	648.69	1.5	24-HR	ALL	1ST	13050824	506353.06	4320174.9	0.00065	426.9	648.69	1.5	ANNUAL	ALL	5
506329.19	4320163.11	0.08265	426.17	648.69	1.5	1-HR	ALL	1ST	9022405	506329.19	4320163.11	0.00641	426.17	648.69	1.5	24-HR	ALL	1ST	13050824	506329.19	4320163.11	0.00056	426.17	648.69	1.5	ANNUAL	ALL	5
506336.29	4320183.28	0.08636	426.28	648.69	1.5	1-HR	ALL	1ST	10122602	506336.29	4320183.28	0.00754	426.28	648.69	1.5	24-HR	ALL	1ST	13050824	506336.29	4320183.28	0.00061	426.28	648.69	1.5	ANNUAL	ALL	5
506312.42	4320171.49	0.07298	424.99	648.69	1.5	1-HR	ALL	1ST	11120201	506312.42	4320171.49	0.00642	424.99	648.69	1.5	24-HR	ALL	1ST	13050824	506312.42	4320171.49	0.00056	424.99	648.69	1.5	ANNUAL	ALL	5
506308.57	4320151.86	0.06951	424.42	648.69	1.5	1-HR	ALL	1ST	9022405	506308.57	4320151.86	0.00454	424.42	648.69	1.5	24-HR	ALL	1ST	13050824	506308.57	4320151.86	0.00053	424.42	648.69	1.5	ANNUAL	ALL	5
506319.52	4320191.66	0.07958	425.54	648.69	1.5	1-HR	ALL	1ST	12122321	506319.52	4320191.66	0.0062	425.54	648.69	1.5	24-HR	ALL	1ST	13050824	506319.52	4320191.66	0.00058	425.54	648.69	1.5	ANNUAL	ALL	5
506295.65	4320179.87	0.0685	424.38	648.69	1.5	1-HR	ALL	1ST	10122602	506295.65	4320179.87	0.00583	424.38	648.69	1.5	24-HR	ALL	1ST	13050824	506295.65	4320179.87	0.00053	424.38	648.69	1.5	ANNUAL	ALL	5
506291.8	4320160.24	0.0651	423.7	648.69	1.5	1-HR	ALL	1ST	9022405	506291.8	4320160.24	0.00489	423.7	648.69	1.5	24-HR	ALL	1ST	13050824	506291.8	4320160.24	0.00052	423.7	648.69	1.5	ANNUAL	ALL	5
506302.74	4320200.05	0.07151	425.22	648.69	1.5	1-HR	ALL	1ST	12010722	506302.74	4320200.05	0.00557	425.22	648.69	1.5	24-HR	ALL	1ST	9022824	506302.74	4320200.05	0.00054	425.22	648.69	1.5	ANNUAL	ALL	5
506278.87	4320188.26	0.06495	424.35	648.69	1.5	1-HR	ALL	1ST	12122321	506278.87	4320188.26	0.00511	424.35	648.69	1.5	24-HR	ALL	1ST	13050824	506278.87	4320188.26	0.00049	424.35	648.69	1.5	ANNUAL	ALL	5
506275.03	4320168.62	0.05886	423.75	648.69	1.5	1-HR	ALL	1ST	11120201	506275.03	4320168.62	0.00502	423.75	648.69	1.5	24-HR	ALL	1ST	13050824	506275.03	4320168.62	0.00048	423.75	648.69	1.5	ANNUAL	ALL	5
506285.97	4320208.43	0.06592	425.07	648.69	1.5	1-HR	ALL	1ST	9120302	506285.97	4320208.43	0.00562	425.07	648.69	1.5	24-HR	ALL	1ST	9022824	506285.97	4320208.43	0.0005	425.07	648.69	1.5	ANNUAL	ALL	5
506262.1	4320196.64	0.06053	424.97	648.69	1.5	1-HR	ALL	1ST	12122321	506262.1	4320196.64	0.00438	424.97	648.69	1.5	24-HR	ALL	1ST	13050824	506262.1	4320196.64	0.00044	424.97	648.69	1.5	ANNUAL	ALL	5
506258.26	4320177.01	0.05913	424.39	648.69	1.5	1-HR	ALL	1ST	11022104	506258.26	4320177.01	0.00502	424.39	648.69	1.5	24-HR	ALL	1ST	13050824	506258.26	4320177.01	0.00043	424.39	648.69	1.5	ANNUAL	ALL	5
506254.41	4320157.37	0.05605	423.71	648.69	1.5	1-HR	ALL	1ST	9022405	506254.41	4320157.37	0.00421	423.71	648.69	1.5	24-HR	ALL	1ST	13050824	506254.41	4320157.37	0.00043	423.71	648.69	1.5	ANNUAL	ALL	5
506269.2	4320216.81	0.06336	425.66	648.69	1.5	1-HR	ALL	1ST	9020808	506269.2	4320216.81	0.00547	425.66	648.69	1.5	24-HR	ALL	1ST	9022824	506269.2	4320216.81	0.00045	425.66	648.69	1.5	ANNUAL	ALL	5
506245.06	4320203.62	0.05997	426.83	648.69	1.5	1-HR	ALL	1ST	12010722	506245.06	4320203.62	0.00452	426.83	648.69	1.5	24-HR	ALL	1ST	9022824	506245.06	4320203.62	0.00037	426.83	648.69	1.5	ANNUAL	ALL	5
506240.66	4320181.18	0.05899	425.76	648.69	1.5	1-HR	ALL	1ST	10122602	506240.66	4320181.18	0.005	425.76	648.69	1.5	24-HR	ALL	1ST	13050824	506240.66	4320181.18	0.00038	425.76	648.69	1.5	ANNUAL	ALL	5
506236.26	4320158.74	0.05361	424.49	648.69	1.5	1-HR	ALL	1ST	9022405	506236.26	4320158.74	0.00428	424.49	648.69	1.5	24-HR	ALL	1ST	13050824	506236.26	4320158.74	0.00038	424.49	648.69	1.5	ANNUAL	ALL	5
506252.43	4320225.19	0.06027	426.93	648.69	1.5	1-HR	ALL	1ST	9020808	506252.43	4320225.19	0.00514	426.93	648.69	1.5	24-HR	ALL	1ST	9022824	506252.43	4320225.19	0.00039	426.93	648.69	1.5	ANNUAL	ALL	5
506211.57	4320220.69	0.05498	428.51	648.69	1.5	1-HR	ALL	1ST	9020808	506211.57	4320220.69	0.00454	428.51	648.69	1.5	24-HR	ALL	1ST	9022824	506211.57	4320220.69	0.0003	428.51	648.69	1.5	ANNUAL	ALL	5
506207.3	4320198.88	0.0538	428.06	648.69	1.5	1-HR	ALL	1ST	12010722	506207.3	4320198.88	0.00368	428.06	648.69	1.5	24-HR	ALL	1ST	13050824	506207.3	4320198.88	0.0003	428.06	648.69	1.5	ANNUAL	ALL	5
506203.03	4320177.07	0.05304	426.92	648.69	1.5	1-HR	ALL	1ST	11022104	506203.03	4320177.07	0.00466	426.92	648.69	1.5	24-HR	ALL	1ST	13050824	506203.03	4320177.07	0.0003	426.92	648.69	1.5	ANNUAL	ALL	5

506218.88	4320241.96	0.05439	428.34	648.69	1.5	1-HR	ALL	1ST
506178.07	4320237.66	0.04545	427.09	648.69	1.5	1-HR	ALL	1ST
506173.87	4320216.24	0.04648	426.2	648.69	1.5	1-HR	ALL	1ST
506169.68	4320194.82	0.04587	425.28	648.69	1.5	1-HR	ALL	1ST
506165.48	4320173.4	0.04344	424.43	648.69	1.5	1-HR	ALL	1ST
506185.34	4320258.72	0.05039	428.2	648.69	1.5	1-HR	ALL	1ST
506144.55	4320254.56	0.04333	427.51	648.69	1.5	1-HR	ALL	1ST
506140.41	4320233.41	0.04363	427.23	648.69	1.5	1-HR	ALL	1ST
506136.27	4320212.27	0.04283	426.66	648.69	1.5	1-HR	ALL	1ST
506132.12	4320191.13	0.04229	425.65	648.69	1.5	1-HR	ALL	1ST
506151.8	4320275.48	0.04459	428.15	648.69	1.5	1-HR	ALL	1ST
506110.88	4320270.67	0.04084	427.89	648.69	1.5	1-HR	ALL	1ST
506106.48	4320248.24	0.03863	428.89	648.69	1.5	1-HR	ALL	1ST
506102.09	4320225.8	0.03958	427.76	648.69	1.5	1-HR	ALL	1ST
506097.69	4320203.36	0.03829	426.38	648.69	1.5	1-HR	ALL	1ST
506118.25	4320292.25	0.03914	426.54	648.69	1.5	1-HR	ALL	1ST
506043.85	4320304.51	0.03353	427.6	648.69	1.5	1-HR	ALL	1ST
506039.58	4320282.7	0.03533	429.19	648.69	1.5	1-HR	ALL	1ST
506035.3	4320260.89	0.03354	429	648.69	1.5	1-HR	ALL	1ST
506031.03	4320239.07	0.03435	428.06	648.69	1.5	1-HR	ALL	1ST
506026.76	4320217.26	0.03258	426.61	648.69	1.5	1-HR	ALL	1ST
506051.16	4320325.78	0.0316	425.35	648.69	1.5	1-HR	ALL	1ST
505976.7	4320337.73	0.02228	422.9	648.69	1.5	1-HR	ALL	1ST
505972.31	4320315.29	0.02362	423.44	648.69	1.5	1-HR	ALL	1ST
505967.91	4320292.86	0.02411	423.75	648.69	1.5	1-HR	ALL	1ST
505963.52	4320270.42	0.02456	424.11	648.69	1.5	1-HR	ALL	1ST
505959.12	4320247.98	0.02554	424.65	648.69	1.5	1-HR	ALL	1ST
505954.72	4320225.54	0.02816	426.86	648.69	1.5	1-HR	ALL	1ST
505950.33	4320203.11	0.0281	427.57	648.69	1.5	1-HR	ALL	1ST
505984.07	4320359.3	0.02286	422.38	648.69	1.5	1-HR	ALL	1ST
506348.76	4320208.51	0.08637	424.93	648.69	1.5	1-HR	ALL	1ST
506363.71	4320238.99	0.08979	424.4	648.69	1.5	1-HR	ALL	1ST
506331.92	4320216.76	0.07946	425.08	648.69	1.5	1-HR	ALL	1ST
506346.88	4320247.24	0.08021	424.2	648.69	1.5	1-HR	ALL	1ST
506315.09	4320225.02	0.07339	425.46	648.69	1.5	1-HR	ALL	1ST
506330.04	4320255.5	0.07789	425.03	648.69	1.5	1-HR	ALL	1ST
506298.26	4320233.28	0.06888	425.48	648.69	1.5	1-HR	ALL	1ST
506313.21	4320263.76	0.07527	425.96	648.69	1.5	1-HR	ALL	1ST
506281.42	4320241.54	0.06613	425.88	648.69	1.5	1-HR	ALL	1ST
506296.38	4320272.02	0.07111	426.85	648.69	1.5	1-HR	ALL	1ST
506264.59	4320249.8	0.06348	426.66	648.69	1.5	1-HR	ALL	1ST
506279.54	4320280.28	0.06758	427.54	648.69	1.5	1-HR	ALL	1ST
506230.92	4320266.31	0.05597	428.02	648.69	1.5	1-HR	ALL	1ST
506197.26	4320282.83	0.05054	428.83	648.69	1.5	1-HR	ALL	1ST
506212.21	4320313.31	0.0527	429.45	648.69	1.5	1-HR	ALL	1ST
506163.59	4320299.35	0.04579	427.5	648.69	1.5	1-HR	ALL	1ST
506178.54	4320329.83	0.04494	428.05	648.69	1.5	1-HR	ALL	1ST
506129.92	4320315.86	0.03946	425.29	648.69	1.5	1-HR	ALL	1ST
506144.88	4320346.34	0.03958	425.36	648.69	1.5	1-HR	ALL	1ST
506062.59	4320348.9	0.02944	423.37	648.69	1.5	1-HR	ALL	1ST
506077.54	4320379.38	0.02693	422.06	648.69	1.5	1-HR	ALL	1ST
505995.26	4320381.93	0.01854	421.83	648.69	1.5	1-HR	ALL	1ST
506010.21	4320412.41	0.02534	423.68	648.69	1.5	1-HR	ALL	1ST
506357.39	4320269.94	0.08664	425.73	648.69	1.5	1-HR	ALL	1ST
506340.38	4320277.83	0.08202	426.48	648.69	1.5	1-HR	ALL	1ST
506221.33	4320333.09	0.05235	430.84	648.69	1.5	1-HR	ALL	1ST
506187.32	4320348.88	0.04855	429.96	648.69	1.5	1-HR	ALL	1ST
506153.31	4320364.67	0.04312	427.11	648.69	1.5	1-HR	ALL	1ST
506085.28	4320396.25	0.02363	421.55	648.69	1.5	1-HR	ALL	1ST
506229.53	4320397.56	0.05048	430.48	648.69	1.5	1-HR	ALL	1ST
506208.43	4320373.22	0.05018	431.08	648.69	1.5	1-HR	ALL	1ST
506309.38	4320504.39	0.05083	427.01	648.69	1.5	1-HR	ALL	1ST
506277.69	4320494.69	0.04548	427.22	648.69	1.5	1-HR	ALL	1ST
506250.99	4320477.33	0.04867	427.94	648.69	1.5	1-HR	ALL	1ST
506229.29	4320452.29	0.04621	425.86	648.69	1.5	1-HR	ALL	1ST
506207.58	4320427.26	0.0424	424.29	648.69	1.5	1-HR	ALL	1ST
506185.87	4320402.22	0.04402	427.11	648.69	1.5	1-HR	ALL	1ST
506210.52	4320540.68	0.02562	419.47	648.69	1.5	1-HR	ALL	1ST
506189.65	4320516.61	0.02543	419.93	648.69	1.5	1-HR	ALL	1ST
506168.77	4320492.54	0.02525	420.13	648.69	1.5	1-HR	ALL	1ST
506147.9	4320468.46	0.02438	419.79	648.69	1.5	1-HR	ALL	1ST
506127.02	4320444.39	0.02254	419.63	648.69	1.5	1-HR	ALL	1ST
506106.15	4320420.32	0.02244	420.23	648.69	1.5	1-HR	ALL	1ST
506147.5	4320578.03	0.02094	417.18	648.69	1.5	1-HR	ALL	1ST
506125.79	4320553	0.02079	419.54	648.69	1.5	1-HR	ALL	1ST
506104.08	4320527.96	0.02105	419.76	648.69	1.5	1-HR	ALL	1ST
506082.37	4320502.93	0.02019	420.01	648.69	1.5	1-HR	ALL	1ST
506060.67	4320477.89	0.01946	421.27	648.69	1.5	1-HR	ALL	1ST
506038.96	4320452.86	0.02635	423.55	648.69	1.5	1-HR	ALL	1ST

** CONCUNIT ug/m^3
** DEPUNIT g/m^2

10120517	506218.88	4320241.96	0.00405	428.34	648.69	1.5	24-HR	ALL	1ST
9020808	506178.07	4320237.66	0.00393	427.09	648.69	1.5	24-HR	ALL	1ST
9120302	506173.87	4320216.24	0.00387	426.2	648.69	1.5	24-HR	ALL	1ST
12122321	506169.68	4320194.82	0.00331	425.28	648.69	1.5	24-HR	ALL	1ST
11022104	506165.48	4320173.4	0.00366	424.43	648.69	1.5	24-HR	ALL	1ST
11120221	506185.34	4320258.72	0.00324	428.2	648.69	1.5	24-HR	ALL	1ST
10120517	506144.55	4320254.56	0.00311	427.51	648.69	1.5	24-HR	ALL	1ST
9020808	506140.41	4320233.41	0.00367	427.23	648.69	1.5	24-HR	ALL	1ST
9120302	506136.27	4320212.27	0.00332	426.66	648.69	1.5	24-HR	ALL	1ST
12122321	506132.12	4320191.13	0.00314	425.65	648.69	1.5	24-HR	ALL	1ST
11120221	506151.8	4320275.48	0.00271	428.15	648.69	1.5	24-HR	ALL	1ST
11120221	506110.88	4320270.67	0.0026	427.89	648.69	1.5	24-HR	ALL	1ST
10120517	506106.48	4320248.24	0.00318	428.89	648.69	1.5	24-HR	ALL	1ST
9020808	506102.09	4320225.8	0.00331	427.76	648.69	1.5	24-HR	ALL	1ST
12010722	506097.69	4320203.36	0.00261	426.38	648.69	1.5	24-HR	ALL	1ST
10122017	506118.25	4320292.25	0.00306	426.54	648.69	1.5	24-HR	ALL	1ST
10122017	506043.85	4320304.51	0.00216	427.6	648.69	1.5	24-HR	ALL	1ST
11120221	506039.58	4320282.7	0.00218	429.19	648.69	1.5	24-HR	ALL	1ST
10120517	506035.3	4320260.89	0.00257	429	648.69	1.5	24-HR	ALL	1ST
9020808	506031.03	4320239.07	0.00284	428.06	648.69	1.5	24-HR	ALL	1ST
9120302	506026.76	4320217.26	0.00248	426.61	648.69	1.5	24-HR	ALL	1ST
10121702	506051.16	4320325.78	0.00332	425.35	648.69	1.5	24-HR	ALL	1ST
12022524	505976.7	4320337.73	0.00244	422.9	648.69	1.5	24-HR	ALL	1ST
10122017	505972.31	4320315.29	0.00178	423.44	648.69	1.5	24-HR	ALL	1ST
11120221	505967.91	4320292.86	0.00166	423.75	648.69	1.5	24-HR	ALL	1ST
10022219	505963.52	4320270.42	0.002	424.11	648.69	1.5	24-HR	ALL	1ST
9020808	505959.12	4320247.98	0.00223	424.65	648.69	1.5	24-HR	ALL	1ST
9120302	505954.72	4320225.54	0.0022	426.86	648.69	1.5	24-HR	ALL	1ST
12010722	505950.33	4320203.11	0.00179	427.57	648.69	1.5	24-HR	ALL	1ST
10012507	505984.07	4320359.3	0.00309	422.38	648.69	1.5	24-HR	ALL	1ST
9020808	506348.76	4320208.51	0.00765	424.93	648.69	1.5	24-HR	ALL	1ST
10122017	506363.71	4320238.99	0.01041	424.4	648.69	1.5	24-HR	ALL	1ST
9020808	506331.92	4320216.76	0.00707	425.08	648.69	1.5	24-HR	ALL	1ST
10122017	506346.88	4320247.24	0.01039	424.2	648.69	1.5	24-HR	ALL	1ST
10120517	506315.09	4320225.02	0.00629	425.46	648.69	1.5	24-HR	ALL	1ST
10121702	506330.04	4320255.5	0.0101	425.03	648.69	1.5	24-HR	ALL	1ST
10120517	506298.26	4320233.28	0.00545	425.48	648.69	1.5	24-HR	ALL	1ST
10121702	506313.21	4320263.76	0.00976	425.96	648.69	1.5	24-HR	ALL	1ST
11120221	506281.42	4320241.54	0.00464	425.88	648.69	1.5	24-HR	ALL	1ST
10012507	506296.38	4320272.02	0.00939	426.85	648.69	1.5	24-HR	ALL	1ST
11120221	506264.59	4320249.8	0.00433	426.66	648.69	1.5	24-HR	ALL	1ST
10012507	506279.54	4320280.28	0.009	427.54	648.69	1.5	24-HR	ALL	1ST
10122017	506230.92	4320266.31	0.00441	428.02	648.69	1.5	24-HR	ALL	1ST
12022524	506197.26	4320282.83	0.00458	428.83	648.69	1.5	24-HR	ALL	1ST
12021118	506212.21	4320313.31	0.00743	429.45	648.69	1.5	24-HR	ALL	1ST
10121702	506163.59	4320299.35	0.00485	427.5	648.69	1.5	24-HR	ALL	1ST
12021308	506178.54	4320329.83	0.00691	428.05	648.69	1.5	24-HR	ALL	1ST
10121702	506129.92	4320315.86	0.00484	425.29	648.69	1.5	24-HR	ALL	1ST
12021308	506144.88	4320346.34	0.0063	425.36	648.69	1.5	24-HR	ALL	1ST
10012507	506062.59	4320348.9	0.0043	423.37	648.69	1.5	24-HR	ALL	1ST
12021308	506077.54	4320379.38	0.00481	422.06	648.69	1.5	24-HR	ALL	1ST
12021118	505995.26	4320381.93	0.0034	421.83	648.69	1.5	24-HR	ALL	1ST
12021308	506010.21	4320412.41	0.0042	423.68	648.69	1.5	24-HR	ALL	1ST
12021308	506357.39	4320269.94	0.01526	425.73	648.69	1.5	24-HR	ALL	1ST
12021308	506340.38	4320277.83	0.01388	426.48	648.69	1.5	24-HR	ALL	1ST
9022823	506221.33	4320333.09	0.00774	430.84	648.69	1.5	24-HR	ALL	1ST
9022823	506187.32	4320348.88	0.00704	429.96	648.69	1.5	24-HR	ALL	1ST
9022823	506153.31	4320364.67	0.00651	427.11	648.69	1.5	24-HR	ALL	1ST
9022823	506085.28	4320396.25	0.0045	421.55	648.69	1.5	24-HR	ALL	1ST
12020104	506229.53	4320397.56	0.00541	430.48	648.69	1.5	24-HR	ALL	1ST
11011223	506208.43	4320373.22	0.00652	431.08	648.69	1.5	24-HR	ALL	1ST
12021924	506309.38	4320504.39	0.00577	427.01	648.69	1.5	24-HR	ALL	1ST
10121408	506277.69	4320494.69	0.00422	427.22	648.69	1.5	24-HR	ALL	1ST
12011820	506250.99	4320477.33	0.00382	427.94	648.69	1.5	24-HR	ALL	1ST
12012007	506229.29	4320452.29	0.00504	425.86	648.69	1.5	24-HR	ALL	1ST
10122619	506207.58	4320427.26	0.00494	424.29	648.69	1.5	24-HR	ALL	1ST
11022406	506185.87	4320402.22	0.0057	427.11	648.69	1.5	24-HR	ALL	1ST
10121408	506210.52	4320540.68	0.00335	419.47	648.69	1.5	24-HR	ALL	1ST
12012305	506189.65	4320516.61	0.00315	419.93	648.69	1.5	24-HR	ALL	1ST
12012007	506168.77	4320492.54	0.00311	420.13	648.69	1.5	24-HR	ALL	1ST
10122619	506147.9	4320468.46	0.00353	419.79	648.69	1.5	24-HR	ALL	1ST
12020104	506127.02	4320444.39	0.00391	419.63	648.69	1.5	24-HR	ALL	1ST
11011223	506106.15	4320420.32	0.00426	420.23	648.69	1.5	24-HR	ALL	1ST
10121408	506147.5	4320578.03	0.00266	417.18	648.69	1.5	24-HR	ALL	1ST
10122603	506125.79	4320553	0.00252	419.54	648.69	1.5	24-HR	ALL	1ST
12012007	506104.08	4320527.96	0.00258	419.76	648.69	1.5	24-HR	ALL	1ST
10122619	506082.37	4320502.93	0.00288	420.01	648.69	1.5	24-HR	ALL	1ST
11021821	506060.67	4320477.89	0.00319	421.27	648.69	1.5	24-HR	ALL	1ST
11011223	506038.96	4320452.86	0.00395	423.55	648.69	1.5	24-HR	ALL	1ST

** CONCUNIT ug/m^3
** DEPUNIT g/m^2

9022824	506218.88	4320241.96	0.00032	428.34	648.69	1.5	ANNUAL	ALL	5
9022824	506178.07	4320237.66	0.00028	427.09	648.69	1.5	ANNUAL	ALL	5
9022824	506173.87	4320216.24	0.00028	426.2	648.69	1.5	ANNUAL	ALL	5
13050824	506169.68	4320194.82	0.00029	425.28	648.69	1.5	ANNUAL	ALL	5
13050824	506165.48	4320173.4	0.00029	424.43	648.69	1.5	ANNUAL	ALL	5
10120524	506185.34	4320258.72	0.00028	428.2	648.69	1.5	ANNUAL	ALL	5
9022824	506144.55	4320254.56	0.00025	427.51	648.69	1.5	ANNUAL	ALL	5
9022824	506140.41	4320233.41	0.00024	427.23	648.69	1.5	ANNUAL	ALL	5
9022824	506136.27	4320212.27	0.00024	426.66	648.69	1.5	ANNUAL	ALL	5
13050824	506132.12	4320191.13	0.00024	425.65	648.69	1.5	ANNUAL	ALL	5
10120524	506151.8	4320275.48	0.00025	428.15	648.69	1.5	ANNUAL	ALL	5
10120524	506110.88	4320270.67	0.00022	427.89	648.69	1.5	ANNUAL	ALL	5
9022824	506106.48	4320248.24	0.0002	428.89	648.69	1.5	ANNUAL	ALL	5
9022824	506102.09	4320225.8	0.0002	427.76	648.69	1.5	ANNUAL	ALL	5
9022824	506097.69	4320203.36	0.00021	426.38	648.69	1.5	ANNUAL	ALL	5
10012524	506118.25	4320292.25	0.00024	426.54	648.69	1.5	ANNUAL	ALL	5
10012524	506043.85	4320304.51	0.00018	427.6	648.69	1.5	ANNUAL	ALL	5
10120524	506039.58	4320282.7	0.00017	429.19	648.69	1.5	ANNUAL	ALL	5
9022824	506035.3	4320260.89	0.00016	429	648.69	1.5	ANNUAL	ALL	5
9022824	506031.03	4320239.07	0.00016	428.06	648.69	1.5	ANNUAL	ALL	5
9022824	506026.76	4320217.26	0.00017	426.61	648.69	1.5	ANNUAL	ALL	5
10012524	506051.16	4320325.78	0.0002	425.35	648.69	1.5	ANNUAL	ALL	5
10012524	505976.7	4320337.73	0.00018	422.9	648.69	1.5	ANNUAL	ALL	5
10012524	505972.31	4320315.29	0.00017	423.44	648.69	1.5	ANNUAL	ALL	5
10120524	505967.91	4320292.86	0.00016	423.75	648.69	1.5	ANNUAL	ALL	5
9022824	505963.52	4320270.42	0.00016	424.11	648.69	1.5	ANNUAL	ALL	5
9022824	505959.12	4320247.98	0.00015	424.65	648.69	1.5	ANNUAL	ALL	5
9022824	505954.72	4320225.54	0.00014	426.86	648.69	1.5	ANNUAL	ALL	5
13050824	505950.33	4320203.11	0.00013	427.57	648.69	1.5	ANNUAL	ALL	5
10012524	505984.07	4320359.3	0.00019	422.38	648.69	1.5	ANNUAL	ALL	5
9022824	506348.76	4320208.51	0.00074	424.93	648.69	1.5	ANNUAL	ALL	5
10012524	506363.71	4320238.99	0.00088	424.4	648.69	1.5	ANNUAL	ALL	5
9022824	506331.92	4320216.76	0.00066	425.08	648.69	1.5	ANNUAL	ALL	5
10012524	506346.88	4320247.24	0.0008	424.2	648.69	1.5	ANNUAL	ALL	5
9022824	506315.09	4320225.02	0.00059	425.46	648.69	1.5	ANNUAL	ALL	5
10012524	506330.04	4320255.5	0.00069	425.03	648.69	1.5	ANNUAL	ALL	5
9022824	506298.26	4320233.28	0.00054	425.48	648.69	1.5	ANNUAL	ALL	5
10012524	506313.21	4320263.76	0.0006	425.96	648.69	1.5	ANNUAL	ALL	5
9022824	506281.42	4320241.54	0.00049	425.88	648.69	1.5	ANNUAL	ALL	5
10012524	506296.38	4320272.02	0.00052	426.85	648.69	1.5	ANNUAL	ALL	5
10012524	506264.59	4320249.8	0.00043	426.66	648.69	1.5	ANNUAL	ALL	5
10012524	506279.54	4320280.28	0.00046	427.54	648.69	1.5	ANNUAL	ALL	5
10012524	506230.92	4320266.31	0.00035	428.02	648.69	1.5	ANNUAL	ALL	5
10012524	506197.26	4320282.83	0.0003	428.83	648.69	1.5	ANNUAL	ALL	5
10012524	506212.21	4320313.31	0.00032	429.45	648.69	1.5	ANNUAL	ALL	5
10012524	506163.59	4320299.35	0.00027	427.5	648.69	1.5	ANNUAL	ALL	5
10012524	506178.54	4320329.83	0.00029	428.05	648.69	1.5	ANNUAL	ALL	5
10012524	506129.92	4320315.86	0.00026	425.29	648.69	1.5	ANNUAL	ALL	5
10012524	506144.88	4320346.34	0.00028	425.36	648.69	1.5	ANNUAL	ALL	5
10012524	506062.59	4320348.9	0.00023	423.37	648.69	1.5	ANNUAL	ALL	5
10012524	506077.54	4320379.38	0.00025	422.06	648.69	1.5	ANNUAL	ALL	5
10012524	505995.26	4320381.93	0.00021	421.83	648.69	1.5	ANNUAL	ALL	5
10012524	506010.21	4320412.41	0.00019	423.68	648.69	1.5	ANNUAL	ALL	5
10012524	506357.39	4320269.94	0.00082	425.73	648.69	1.5	ANNUAL	ALL	5
10012524	506340.38	4320277.83	0.00071	426.48	648.69	1.5	ANNUAL	ALL	5
10012524	506221.33	4320333.09	0.00032	430.84	648.69	1.5	ANNUAL	ALL	5
10012524	506187.32	4320348.88	0.00029	429.96	648.69	1.5	ANNUAL	ALL	5
10012524	506153.31	4320364.67	0.00028	427.11	648.69	1.5	ANNUAL	ALL	5
10012524	506085.28	4320396.25	0.00028	421.55	648.69	1.5	ANNUAL	ALL	5
10012524	506229.53	4320397.56	0.00037	430.48	648.69	1.5	ANNUAL	ALL	5
10012524	506208.43	4320373.22	0.00032	431.08	648.69	1.5	ANNUAL	ALL	5
10121824	506309.38	4320504.39	0.0007	427.01	648.69	1.5	ANNUAL	ALL	5
10121824	506277.69	4320494.69	0.00055	427.22	648.69	1.5	ANNUAL	ALL	5
10121824	506250.99	4320477.33	0.00047	427.94	648.69	1.5	ANNUAL	ALL	5
10122624	506229.29	4320452.29	0.00044	425.86	648.69	1.5	ANNUAL	ALL	5
10012524	506207.58	4320427.26	0.00041	424.29	648.69	1.5	ANNUAL	ALL	5
10012524	506185.87	4320402.22	0.00034	427.11	648.69	1.5	ANNUAL	ALL	5
10121824	506210.52	4320540.68	0.00048	419.47	648.69	1.5	ANNUAL	ALL	5
10121824	506189.65	4320516.61	0.00044	419.93	648.69	1.5	ANNUAL	ALL	5
10012524	506168.77	4320492.54	0.0004	420.13	648.69	1.5	ANNUAL	ALL	5
10012524	506147.9	4320468.46	0.00037	419.79	648.69	1.5	ANNUAL	ALL	5
10012524	506127.02	4320444.39	0.00034	419.63	648.69	1.5	ANNUAL	ALL	5
10012524	506106.15	4320420.32	0.00032	420.23	648.69	1.5	ANNUAL	ALL	5
10121824	506147.5	4320578.03	0.00036	417.18	648.69	1.5	ANNUAL	ALL	5
10121824	506125.79	4320553	0.00034	419.54	648.69	1.5	ANNUAL	ALL	5
10012524	506104.08	4320527.96	0.00031	419.76	648.69	1.5	ANNUAL	ALL	5
10012524	506082.37	4320502.93	0.00029	420.01	648.69	1.5	ANNUAL	ALL	5
10012524	506060.67	4320477.89	0.00027	421.27	648.69	1.5	ANNUAL	ALL	5
10012524	506038.96	4320452.86	0.00022	423.55	648.69	1.5	ANNUAL	ALL	5

** CONCUNIT ug/m^3
** DEPUNIT g/m^2

ATTACHMENT C
Energy Consumption Calculations

Construction Vehicle Fuel Calculations

California Air Resource Board (ARB). 2021. EMFAC2017 Web Database (v1.0.2). Website: https://arb.ca.gov/emfac/2017/. October 8 ,2021.

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: County
Region: LAKE
Calendar Year: 2022
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. Note 'day' in the unit is operation day.

VMT = Vehicle Miles Traveled
FE = Fuel Economy

			Given						*Calculations*	
Region	Calendar Year	Vehicle Class	Model Year	Speed	Fuel	Population	VMT (mi/day)	Consumption (1000 gallons/day)	FE (mi/gallon)	VMT*FE
LAKE	2022	HHDT	Aggregated	Aggregated	GAS	0.5462514	22.045366	0.0054424	4.05067057	89.29852
LAKE	2022	HHDT	Aggregated	Aggregated	DSL	387.865692	34895.43	5.66927952	6.15517892	214787.6
LAKE	2022	LDA	Aggregated	Aggregated	GAS	28848.7694	1119963.6	37.4191192	29.9302515	33520794
LAKE	2022	LDA	Aggregated	Aggregated	DSL	344.567939	13298.115	0.28660174	46.3992837	617023
LAKE	2022	LDT1	Aggregated	Aggregated	GAS	4488.40442	140290.97	5.70482867	24.5916184	3449982
LAKE	2022	LDT1	Aggregated	Aggregated	DSL	6.1271381	72.377283	0.00294687	24.5607202	1777.638
LAKE	2022	LDT2	Aggregated	Aggregated	GAS	12464.1814	447575.43	19.522933	22.9256244	10260946
LAKE	2022	LDT2	Aggregated	Aggregated	DSL	55.619673	2441.2752	0.0680418	35.8790492	87590.63
LAKE	2022	LHDT1	Aggregated	Aggregated	GAS	1693.72798	50650.319	6.21619463	8.14812305	412705
LAKE	2022	LHDT1	Aggregated	Aggregated	DSL	2080.62566	66831.696	3.86297561	17.3005741	1156227
LAKE	2022	LHDT2	Aggregated	Aggregated	GAS	116.300421	3905.6616	0.53957376	7.23842021	28270.82
LAKE	2022	LHDT2	Aggregated	Aggregated	DSL	570.819878	19472.413	1.25865775	15.470777	301253.4
LAKE	2022	MDV	Aggregated	Aggregated	GAS	10458.2353	346193.25	18.3027966	18.9147733	6548167
LAKE	2022	MDV	Aggregated	Aggregated	DSL	237.054873	9832.1431	0.37474808	26.2366736	257962.7
LAKE	2022	MHDT	Aggregated	Aggregated	GAS	93.6690087	3888.5356	0.82271878	4.72644565	18378.95
LAKE	2022	MHDT	Aggregated	Aggregated	DSL	470.640668	25297.624	2.86910149	8.81726355	223055.8

Worker
Weighted Average Fuel Economy **26.32356**

Vendor
Weighted Average Fuel Economy **11.4887**

Haul
Weighted Average Fuel Economy **6.15385**

Phase 1 Construction Vehicle Fuel Calculations

Construction Schedule

Source: CalEEMod Output

CalEEMod Run	Phase Name	Start Date	End Date	Num Days Week	Num Days
Phase 1	Site Preparation	5/1/2022	5/6/2022	5	5
Phase 1	Grading	5/7/2022	5/18/2022	5	8
Phase 1	Paving	5/19/2022	6/13/2022	5	18
Phase 1	Building Construction	6/14/2022	10/6/2022	5	83
Phase 1	Architectural Coating	10/7/2022	11/1/2022	5	18

Construction Trips and VMT

		Trips per Day		Total Trips	Construction Trip Length in Miles				Trips per Phase			VMT per Phase			Fuel Consumption (gallons)		
CalEEMod Run	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
Phase 1	Site Preparation	18	0	14	10.8	7.3	20	5	90	0	14	972	0	280	36.93	0.00	45.50
Phase 1	Grading	15	0	12	10.8	7.3	20	8	120	0	12	1,296	0	240	49.23	0.00	39.00
Phase 1	Paving	20	4	16	10.8	7.3	20	18	360	72	16	3,888	526	320	147.70	45.75	52.00
Phase 1	Building Construction	58	23	48	10.8	7.3	20	83	4,814	1,909	48	51,991	13,936	960	1,975.08	1,212.99	156.00
Phase 1	Architectural Coating	12	0	2	10.8	7.3	20	18	216	0	2	2,333	0	40	88.62	0.00	6.50

Total Phase 1 Project Construction VMT (miles)

76,781

Total Phase 1 Project Fuel Consumption (gallons)

3,855

Construction Vehicle Fuel Calculations

California Air Resource Board (ARB). 2021. EMFAC2017 Web Database (v1.0.2). Website: https://arb.ca.gov/emfac/2017/. October 8 ,2021.

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: County
Region: LAKE
Calendar Year: 2023
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. Note 'day' in the unit is operation day.

VMT = Vehicle Miles Traveled
FE = Fuel Economy

				Given					*Calculations*	
Region	Calendar Year	Vehicle Class	Model Year	Speed	Fuel	Population	VMT (mi/day)	Consumption (1000 gallons/day)	FE (mi/gallon)	VMT*FE
LAKE	2023	HHDT	Aggregated	Aggregated	GAS	0.456203231	21.29816026	0.005049729	4.217683684	89.8289
LAKE	2023	HHDT	Aggregated	Aggregated	DSL	400.4298278	36169.37193	5.671643169	6.377229817	230660.4
LAKE	2023	LDA	Aggregated	Aggregated	GAS	29434.20868	1141719.944	37.12063226	30.75701772	35115901
LAKE	2023	LDA	Aggregated	Aggregated	DSL	355.6459773	13720.08867	0.287832324	47.66694894	653994.8
LAKE	2023	LDT1	Aggregated	Aggregated	GAS	4385.975578	137682.1671	5.459299375	25.21975032	3472310
LAKE	2023	LDT1	Aggregated	Aggregated	DSL	5.460392193	62.84018462	0.002541937	24.72137369	1553.496
LAKE	2023	LDT2	Aggregated	Aggregated	GAS	12536.92296	447644.1433	18.94714028	23.6259476	10576017
LAKE	2023	LDT2	Aggregated	Aggregated	DSL	61.19677549	2657.87013	0.072141479	36.84246777	97922.49
LAKE	2023	LHDT1	Aggregated	Aggregated	GAS	1632.713785	48446.0497	5.908082898	8.199961061	397255.7
LAKE	2023	LHDT1	Aggregated	Aggregated	DSL	1976.752594	62191.97236	3.576824987	17.38747984	1081362
LAKE	2023	LHDT2	Aggregated	Aggregated	GAS	112.0084189	3762.29871	0.514774664	7.308632255	27497.26
LAKE	2023	LHDT2	Aggregated	Aggregated	DSL	551.6075895	18420.5953	1.183565351	15.56364866	286691.7
LAKE	2023	MDV	Aggregated	Aggregated	GAS	10272.96747	337359.7881	17.36721619	19.42509291	6553245
LAKE	2023	MDV	Aggregated	Aggregated	DSL	246.8474215	10027.71449	0.374438981	26.78063719	268548.6
LAKE	2023	MHDT	Aggregated	Aggregated	GAS	92.24441592	3949.107918	0.825094211	4.786250908	18901.42
LAKE	2023	MHDT	Aggregated	Aggregated	DSL	461.602688	25518.35282	2.806375952	9.092991549	232038.2

Worker
Weighted Average Fuel Economy **27.13673**

Vendor
Weighted Average Fuel Economy **11.45963**

Haul
Weighted Average Fuel Economy **6.375959**

Phase 2 and Phase 3 Construction Vehicle Fuel Calculations

Construction Schedule

Source: CalEEMod Output

CalEEMod Run	Phase Name	Start Date	End Date	Num Days Week	Num Days
Phase 2	Site Preparation	1/1/2023	1/6/2023	5	5
Phase 2	Grading	1/7/2023	1/18/2023	5	8
Phase 2	Paving	1/19/2023	2/13/2023	5	18
Phase 2	Building Construction	2/14/2023	9/6/2023	5	147
Phase 2	Architectural Coating	9/7/2023	10/2/2023	5	18
Phase 3	Site Preparation	10/3/2023	10/16/2023	5	10
Phase 3	Grading	10/17/2023	11/13/2023	5	20
Phase 3	Paving	11/14/2023	12/11/2023	5	20
Phase 3	Building Construction	12/12/2023	10/28/2024	5	230
Phase 3	Architectural Coating	10/29/2024	11/25/2024	5	20

Construction Trips and VMT

		Trips per Day		Total Trips	Construction Trip Length in Miles				Trips per Phase			VMT per Phase			Fuel Consumption (gallons)		
CalEEMod Run	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
Phase 2	Site Preparation	18	0	14	10.8	7.3	20	5	90	0	14	972	0	280	35.82	0.00	43.91
Phase 2	Grading	15	0	12	10.8	7.3	20	8	120	0	12	1,296	0	240	47.76	0.00	37.64
Phase 2	Building Construction	20	4	16	10.8	7.3	20	18	360	72	16	3,888	526	320	143.27	45.87	50.19
Phase 2	Paving	106	41	36	10.8	7.3	20	147	15,582	6,027	36	168,286	43,997	720	6,201.40	3,839.31	112.92
Phase 2	Architectural Coating	21	0	2	10.8	7.3	20	18	378	0	2	4,082	0	40	150.44	0.00	6.27
Phase 3	Site Preparation	18	0	14	10.8	7.3	20	10	180	0	14	1,944	0	280	71.64	0.00	43.91
Phase 3	Grading	15	0	12	10.8	7.3	20	20	300	0	12	3,240	0	240	119.40	0.00	37.64
Phase 3	Building Construction	15	4	12	10.8	7.3	20	20	300	80	12	3,240	584	240	119.40	50.96	37.64
Phase 3	Paving	150	60	18	10.8	7.3	20	230	34,500	13,800	18	372,600	100,740	360	13,730.47	8,790.86	56.46
Phase 3	Architectural Coating	30	0	2	10.8	7.3	20	20	600	0	2	6,480	0	40	238.79	0.00	6.27

Total Phase 2 Project Construction VMT (miles)
224,647

Total Phase 3 Project Construction VMT (miles)
489,988

Total Phase 2 Project Fuel Consumption (gallons)
10,715

Total Phase 3 Project Fuel Consumption (gallons)
23,303

Construction Equipment Fuel Calculation—Phase 1

Source: CalEEMod Output

Construction Schedule

Construction Area	Phase Type	Start Date	End Date	Num Days Week	Num Days
Phase 1	Site Preparation	5/1/2022	5/6/2022	5	5
Phase 1	Grading	5/7/2022	5/18/2022	5	8
Phase 1	Paving	5/19/2022	6/13/2022	5	18
Phase 1	Building Construction	6/14/2022	10/6/2022	5	83
Phase 1	Architectural Coating	10/7/2022	11/1/2022	5	18

Construction Equipment (Phase 1)

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of Days	HP Hours	Fuel (gallons/HP-	Diesel Fuel Usage
Site Preparation	Rubber Tired Dozers	3	8	247	0.40	5	11,856.00	0.0205133	243.21
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37	5	5,742.40	0.0190266	109.26
Grading	Excavators	1	8	158	0.38	8	3,842.56	0.0197573	75.92
Grading	Graders	1	8	187	0.41	8	4,906.88	0.0212148	104.10
Grading	Rubber Tired Dozers	1	8	247	0.40	8	6,323.20	0.0205133	129.71
Grading	Tractors/Loaders/Backhoes	3	8	97	0.37	8	6,890.88	0.0190266	131.11
Paving	Cement and Mortar Mixers	2	6	9	0.56	18	1,088.64	0.0286104	31.15
Paving	Pavers	1	8	130	0.42	18	7,862.40	0.0215272	169.26
Paving	Paving Equipment	2	6	132	0.36	18	10,264.32	0.0183326	188.17
Paving	Rollers	2	6	80	0.38	18	6,566.40	0.0194042	127.42
Paving	Tractors/Loaders/Backhoes	1	8	97	0.37	18	5,168.16	0.0190266	98.33
Building Construction	Cranes	3	6.5	231	0.29	83	108,423.32	0.0148849	1,613.87
Building Construction	Forklifts	9	7.4	89	0.20	83	98,394.84	0.0208047	2,047.08
Building Construction	Generator Sets	3	7.4	84	0.74	83	114,536.02	0.0423576	4,851.47
Building Construction	Tractors/Loaders/Backhoes	6	9.7	97	0.37	83	173,370.23	0.0190266	3,298.64
Building Construction	Welders	3	7.4	46	0.45	83	38,141.82	0.0258355	985.41
Architectural Coating	Air Compressors	1	6	78	0.48	18	4,043.52	0.0275358	111.34

Total Phase 1 Construction Equipment Fuel Consumption (gallons) **14,315.43**

Notes:

Equipment assumptions are provided in the CalEEMod output files.

Source of usage estimates: California Air Resource Board (ARB). 2021. OFFROAD2017 (v1.0.1) Emissions Inventory for Lake County

Website: https://www.arb.ca.gov/orion/. Accessed October 10, 2021.

Construction Equipment Fuel Calculation—Phase 2

Source: CalEEMod Output

Construction Schedule

Construction Area	Phase Type	Start Date	End Date	Num Days Week	Num Days
Phase 2	Site Preparation	1/1/2023	1/6/2023	5	5
Phase 2	Grading	1/7/2023	1/18/2023	5	8
Phase 2	Paving	1/19/2023	2/13/2023	5	18
Phase 2	Building Construction	2/14/2023	9/6/2023	5	147
Phase 2	Architectural Coating	9/7/2023	10/2/2023	5	18

Construction Equipment (Phase 2)

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of Days	HP Hours	Fuel (gallons/HP-	Diesel Fuel Usage
Site Preparation	Rubber Tired Dozers	3	8	247	0.40	5	11,856.00	0.0205133	243.21
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37	5	5,742.40	0.0190266	109.26
Grading	Excavators	1	8	158	0.38	8	3,842.56	0.0197573	75.92
Grading	Graders	1	8	187	0.41	8	4,906.88	0.0212148	104.10
Grading	Rubber Tired Dozers	1	8	247	0.40	8	6,323.20	0.0205133	129.71
Grading	Tractors/Loaders/Backhoes	3	8	97	0.37	8	6,890.88	0.0190266	131.11
Paving	Cement and Mortar Mixers	2	6	9	0.56	18	1,088.64	0.0286104	31.15
Paving	Pavers	1	8	130	0.42	18	7,862.40	0.0215272	169.26
Paving	Paving Equipment	2	6	132	0.36	18	10,264.32	0.0183326	188.17
Paving	Rollers	2	6	80	0.38	18	6,566.40	0.0194042	127.42
Paving	Tractors/Loaders/Backhoes	1	8	97	0.37	18	5,168.16	0.0190266	98.33
Building Construction	Cranes	2	5.5	231	0.29	147	108,322.83	0.0148849	1,612.37
Building Construction	Forklifts	6	6.3	89	0.20	147	98,907.48	0.0208047	2,057.74
Building Construction	Generator Sets	2	6.3	84	0.74	147	115,132.75	0.0423576	4,876.75
Building Construction	Tractors/Loaders/Backhoes	6	5.5	97	0.37	147	174,102.39	0.0190266	3,312.57
Building Construction	Welders	2	6.3	46	0.45	147	38,340.54	0.0258355	990.55
Architectural Coating	Air Compressors	1	6	78	0.48	18	4,043.52	0.0275358	111.34

Total Phase 2 Construction Equipment Fuel Consumption (gallons) **14,368.94**

Notes:

Equipment assumptions are provided in the CalEEMod output files.

Source of usage estimates: California Air Resource Board (ARB). 2021. OFFROAD2017 (v1.0.1) Emissions Inventory for Lake County.

Website: https://www.arb.ca.gov/orion/. Accessed October 10, 2021.

Construction Equipment Fuel Calculation—Phase 3

Source: CalEEMod Output

Construction Schedule

Construction Area	Phase Type	Start Date	End Date	Num Days Week	Num Days
Phase 3	Site Preparation	10/3/2023	10/16/2023	5	10
Phase 3	Grading	10/17/2023	11/13/2023	5	20
Phase 3	Paving	11/14/2023	12/11/2023	5	20
Phase 3	Building Construction	12/12/2023	10/28/2024	5	230
Phase 3	Architectural Coating	10/29/2024	11/25/2024	5	20

Construction Equipment (Phase 3)

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of Days	HP Hours	Fuel (gallons/HP-	Diesel Fuel Usage
Site Preparation	Rubber Tired Dozers	3	8	247	0.40	10	23,712.00	0.0205133	486.41
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37	10	11,484.80	0.0190266	218.52
Grading	Excavators	1	8	158	0.38	20	9,606.40	0.0197573	189.80
Grading	Graders	1	8	187	0.41	20	12,267.20	0.0212148	260.25
Grading	Rubber Tired Dozers	1	8	247	0.40	20	15,808.00	0.0205133	324.27
Grading	Tractors/Loaders/Backhoes	3	8	97	0.37	20	17,227.20	0.0190266	327.77
Paving	Cement and Mortar Mixers	2	6	9	0.56	20	1,209.60	0.0286104	34.61
Paving	Pavers	1	8	130	0.42	20	8,736.00	0.0215272	188.06
Paving	Paving Equipment	2	6	132	0.36	20	11,404.80	0.0183326	209.08
Paving	Rollers	2	6	80	0.38	20	7,296.00	0.0194042	141.57
Paving	Tractors/Loaders/Backhoes	1	8	97	0.37	20	5,742.40	0.0190266	109.26
Building Construction	Cranes	3	7	231	0.29	230	323,561.70	0.0148849	4,816.17
Building Construction	Forklifts	9	8	89	0.20	230	294,768.00	0.0208047	6,132.57
Building Construction	Generator Sets	3	8	84	0.74	230	343,123.20	0.0423576	14,533.88
Building Construction	Tractors/Loaders/Backhoes	6	7	97	0.37	230	346,697.40	0.0190266	6,596.47
Building Construction	Welders	3	8	46	0.45	230	114,264.00	0.0258355	2,952.06
Architectural Coating	Air Compressors	1	6	78	0.48	20	4,492.80	0.0275358	123.71

Total Phase 3 Construction Equipment Fuel Consumption (gallons) **37,644.45**

Notes:

Equipment assumptions are provided in the CalEEMod output files.

Source of usage estimates: California Air Resource Board (ARB). 2021. OFFROAD2017 (v1.0.1) Emissions Inventory for Lake County

Website: https://www.arb.ca.gov/orion/. Accessed October 10, 2021.

Construction Equipment Fuel Calculation

OFFROAD2017 (v1.0.1) Emissions Inventory
Region Type: County
Region: Lake
Calendar Year: 2022
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)
Lake	2022	Construction and Mining - Bore/Drill Rigs	Aggregated	300	Diesel	1202.1117	46738.4889	0.025719952
Lake	2022	Construction and Mining - Cranes	Aggregated	300	Diesel	4286.6045	287984.2662	0.014884857
Lake	2022	Construction and Mining - Excavators	Aggregated	175	Diesel	12745.0724	645082.5709	0.019757273
Lake	2022	Construction and Mining - Graders	Aggregated	175	Diesel	7784.2571	366926.5638	0.021214755
Lake	2022	Construction and Mining - Misc - Cement And Mortar Mixers	Aggregated	25	Diesel	76.6500	2679.1000	0.028610354
Lake	2022	Construction and Mining - Misc - Concrete/Industrial Saws	Aggregated	50	Diesel	58.4000	1324.9500	0.044077135
Lake	2022	Construction and Mining - Pavers	Aggregated	175	Diesel	1684.8709	78267.0537	0.021527205
Lake	2022	Construction and Mining - Paving Equipment	Aggregated	175	Diesel	716.1892	39066.4850	0.018332574
Lake	2022	Construction and Mining - Rollers	Aggregated	100	Diesel	4065.8881	209536.3676	0.019404212
Lake	2022	Construction and Mining - Rough Terrain Forklifts	Aggregated	100	Diesel	10422.8383	500984.2840	0.020804721
Lake	2022	Construction and Mining - Rubber Tired Dozers	Aggregated	300	Diesel	564.5130	27519.3937	0.020513278
Lake	2022	Construction and Mining - Scrapers	Aggregated	300	Diesel	4683.9464	188210.4802	0.024886746
Lake	2022	Construction and Mining - Tractors/Loaders/Backhoes	Aggregated	300	Diesel	6872.2164	361190.1966	0.019026586
Lake	2022	Light Commercial - Misc - Air Compressors	Aggregated	50	Diesel	1580.4500	57396.2500	0.027535771
Lake	2022	Light Commercial - Misc - Welders	Aggregated	50	Diesel	7274.4500	281568.3000	0.025835472
Lake	2022	Light Commercial - Misc - Generator Sets	Aggregated	50	Diesel	23662.9500	558647.1000	0.042357599

Operational Fuel Calculation—Project-generated Operational Trips

California Air Resource Board (ARB). 2021. EMFAC2017 Web Database (v1.0.2). Website: https://arb.ca.gov/emfac/2017/. Accessed October 9, 2021.

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: County
Region: LAKE
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. Note 'day' in the unit is operation day.

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
LAKE	2024	LDA	Aggregated	Aggregated	GAS	30013.06357	1161405.519	36.7232447	31.62589603	36730490.18
LAKE	2024	LDA	Aggregated	Aggregated	DSL	364.9227346	14077.97293	0.287080278	49.03845364	690362.0227
								Weighted Average Fuel Economy		**31.83443449**
LAKE	2024	LDT1	Aggregated	Aggregated	GAS	4293.339064	135384.1985	5.227637811	25.89777705	3506149.789
LAKE	2024	LDT1	Aggregated	Aggregated	DSL	4.886412912	55.00707536	0.002206934	24.92465913	1371.032603
LAKE	2024	LDT2	Aggregated	Aggregated	GAS	12609.41416	447479.9706	18.36435694	24.36676504	10903639.3
LAKE	2024	LDT2	Aggregated	Aggregated	DSL	66.64096202	2859.932218	0.075600508	37.82953683	108189.9112
LAKE	2024	MDV	Aggregated	Aggregated	GAS	10072.32597	328842.0274	16.44624745	19.99495802	6575182.534
LAKE	2024	MDV	Aggregated	Aggregated	DSL	255.879876	10177.48142	0.371845598	27.37018128	278559.5114
								Weighted Average Fuel Economy		**23.11107703**
LAKE	2024	LHDT1	Aggregated	Aggregated	GAS	1575.876226	46398.97776	5.617119025	8.260280324	383268.563
LAKE	2024	LHDT1	Aggregated	Aggregated	DSL	1872.917359	57800.01201	3.304527099	17.49115994	1010989.255
LAKE	2024	LHDT2	Aggregated	Aggregated	GAS	107.9676905	3629.330178	0.491142639	7.389564432	26819.1692
LAKE	2024	LHDT2	Aggregated	Aggregated	DSL	531.899547	17410.98746	1.110927616	15.67247696	272873.2999
LAKE	2024	MHDT	Aggregated	Aggregated	GAS	91.42202775	4011.592397	0.825237779	4.861135176	19500.89291
LAKE	2024	MHDT	Aggregated	Aggregated	DSL	477.3458303	25850.63979	2.820394141	9.165612499	236936.9472
LAKE	2024	HHDT	Aggregated	Aggregated	GAS	0.399563025	21.51407296	0.004896795	4.393500825	94.5220973
LAKE	2024	HHDT	Aggregated	Aggregated	DSL	415.3624526	37552.27437	5.80836828	6.465202026	242783.0403
								Weighted Average Fuel Economy		**11.38322022**
LAKE	2024	MCY	Aggregated	Aggregated	GAS	2509.354606	13125.23035	0.36818167	35.64878812	467898.5557
								Weighted Average Fuel Economy		**35.64878812**
LAKE	2024	MH	Aggregated	Aggregated	GAS	353.7299526	2558.415965	0.547172354	4.675703998	11962.39575
LAKE	2024	MH	Aggregated	Aggregated	DSL	129.6791283	1008.707627	0.104658759	9.638062217	9721.986867
LAKE	2024	SBUS	Aggregated	Aggregated	GAS	9.309840222	443.6864546	0.046819954	9.476439328	4204.567768
LAKE	2024	SBUS	Aggregated	Aggregated	DSL	71.74853424	2261.227642	0.275868297	8.19676515	18534.75193
LAKE	2024	OBUS	Aggregated	Aggregated	GAS	21.79053582	765.4391483	0.159389912	4.802306119	3675.873105
LAKE	2024	OBUS	Aggregated	Aggregated	DSL	5.949967792	693.7505048	0.102879794	6.743311596	4678.175823
								Weighted Average Fuel Economy		**6.826568269**

Operational Fuel Calculation—Project Full Buildout Operational Trips (Page 2 of 2)

Total Operational VMT

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market with Gas Pumps	3,286.00	3,286.00	3286.00	1,762,624	1,762,624
Fast Food Restaurant with Drive Thru	1,396.00	1,396.00	1396.00	1,304,318	1,304,318
High Turnover (Sit Down Restaurant)	359.00	392.00	456.00	438,083	438,083
Hotel	585.00	573.00	417.00	1,062,604	1,062,604
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Regional Shopping Center	1,830.00	2,236.00	1023.00	3,108,109	3,108,109
Total	7,456.00	7,883.00	6,578.00	7,675,737	7,675,737

	Annual VMT (miles)
Total Operational VMT	**7,675,737**

By Vehicle Type

	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Project Buildout	0.464659	0.064863	0.191817	0.155973	0.051760	0.009603	0.008536	0.006240	0.000416	0.000000	0.037661	0.001217	0.007255

Phase 1 Residential Land Uses

	Fraction of 1	Percent of Vehicle Trips	Annual VMT	Average Fuel Economy (miles/gallon)	Average Daily Fuel Consumption (gallons)	Total Annual Fuel Consumption (gallons)	Daily VMT
Passenger Cars (LDA)	0.4647	46.5	3,566,600	31.83	306.9	112,036	9772
Light Trucks and Medium Vehicles (LDT1, LDT2, and MDV)	0.4127	41.3	3,167,416	23.11	375.5	137,052	8678
Light-Heavy to Heavy-Heavy Diesel Trucks	0.0761	7.6	584,423	11.38	140.7	51,341	1601
Motorcycles	0.0377	3.8	289,076	35.65	22.2	8,109	792
Other	0.0089	0.9	68,222	6.83	27.4	9,994	187
Total	**—**	**100**	**7,675,737**	**—**	**872.7**	**318,531**	**21,029**

Project Operations Natural Gas Use

Source: CalEEMod Output

kBTU/yr = kilo-British Thermal Units/year

	Natural Gas Use (kBTU/yr)
Convenience Market with Gas Pumps	43961
Fast Food Restaurant with Drive Thru	214471
High Turnover (Sit Down Restaurant)	370976
Hotel	2089720
Other Asphalt Surfaces	0
Parking Lot	0
Recreational Swimming Pool	0
Regional Shopping Center	346147
Project Total	**3,065,275 kBTU/yr**

Project Operations Electricity Use

Source: CalEEMod Output

kWh/yr = kilowatt hours per year

Phase 1	Electricity Use (kWh/yr)
Convenience Market with Gas Pumps	79,918
Fast Food Restaurant with Drive Thru	44,659
High Turnover (Sit Down Restaurant)	77,248
Hotel	736,890
Other Asphalt Surfaces	0
Parking Lot	186,154
Recreational Swimming Pool	0
Regional Shopping Center	629,270
Phase 1 Total	**1,754,139 kWh/yr**

ATTACHMENT D
Additional Supporting Information

Lakeport Shopping Center Project Construction Assumptions

Construction Phase

Phase 1

Phase Name	Start Date	End Date	Days/Week	Construction Days
Site Preparation	5/1/2022	5/6/2022	5	5
Grading	5/7/2022	5/18/2022	5	8
Paving	5/19/2022	6/13/2022	5	18
Building Construction	6/14/2022	10/6/2022	5	83
Architectural Coating	10/7/2022	11/1/2022	5	18

Phase 2

Phase Name	Start Date	End Date	Days/Week	Construction Days
Site Preparation	1/1/2023	1/6/2023	5	5
Grading	1/7/2023	1/18/2023	5	8
Paving	1/19/2023	2/13/2023	5	18
Building Construction	2/14/2023	9/6/2023	5	147
Architectural Coating	9/7/2023	10/2/2023	5	18

Phase 3

Phase Name	Start Date	End Date	Days/Week	Construction Days
Site Preparation	10/3/2023	10/16/2023	5	10
Grading	10/17/2023	11/13/2023	5	20
Paving	11/14/2023	12/11/2023	5	20
Building Construction	12/12/2023	10/28/2024	5	230
Architectural Coating	10/29/2024	11/25/2024	5	20

OffRoad Equipment

Phase 1

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	1	8	158	0.38
Grading	Graders	1	8	187	0.41
Grading	Rubber Tired Dozers	1	8	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8	97	0.37
Paving	Cement and Mortar Mixers	2	6	9	0.56
Paving	Pavers	1	8	130	0.42
Paving	Paving Equipment	2	6	132	0.36
Paving	Rollers	2	6	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8	97	0.37
Building Construction	Cranes	3	6.5	231	0.29
Building Construction	Forklifts	9	7.4	89	0.20
Building Construction	Generator Sets	3	7.4	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	9.7	97	0.37
Building Construction	Welders	3	7.4	46	0.45
Architectural Coating	Air Compressors	1	6	78	0.48

Phase 2

PhaseName	OffRoadEquipmentType	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	1	8	158	0.38
Grading	Graders	1	8	187	0.41
Grading	Rubber Tired Dozers	1	8	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8	97	0.37
Paving	Cement and Mortar Mixers	2	6	9	0.56
Paving	Pavers	1	8	130	0.42
Paving	Paving Equipment	2	6	132	0.36
Paving	Rollers	2	6	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8	97	0.37
Building Construction	Cranes	2	5.5	231	0.29
Building Construction	Forklifts	6	6.3	89	0.20
Building Construction	Generator Sets	2	6.3	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	5.5	97	0.37
Building Construction	Welders	2	6.3	46	0.45
Architectural Coating	Air Compressors	1	6	78	0.48

Phase 3

PhaseName	OffRoadEquipmentType	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	1	8	158	0.38
Grading	Graders	1	8	187	0.41
Grading	Rubber Tired Dozers	1	8	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8	97	0.37
Paving	Pavers	2	8	130	0.42
Paving	Paving Equipment	2	8	132	0.36
Paving	Rollers	2	8	80	0.38
Building Construction	Cranes	1	7	231	0.29
Building Construction	Forklifts	3	8	89	0.20
Building Construction	Generator Sets	1	8	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37
Building Construction	Welders	1	8	46	0.45
Architectural Coating	Air Compressors	1	6	78	0.48

Construction Trips and VMT

Phase 1

Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length
Site Preparation	18	0	14	10.8	7.3	20
Grading	15	0	12	10.8	7.3	20
Building Construction	20	4	16	10.8	7.3	20
Paving	58	23	48	10.8	7.3	20
Architectural Coating	12	0	2	10.8	7.3	20

Phase 2

Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length
Site Preparation	18	0	14	10.8	7.3	20
Grading	15	0	12	10.8	7.3	20
Paving	20	4	16	10.8	7.3	20
Building Construction	106	41	36	10.8	7.3	20
Architectural Coating	21	0	2	10.8	7.3	20

Phase 3

Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length
Site Preparation	18	0	14	10.8	7.3	20
Grading	15	0	12	10.8	7.3	20
Paving	15	4	12	10.8	7.3	20
Building Construction	150	60	18	10.8	7.3	20
Architectural Coating	30	0	2	10.8	7.3	20

Hauling trips were added to each phase for mobilization/demobilization of off-road equipment.

Calculations for Adjustments to Conserve Default HP Hours (Phase 1)

	Duration	
	CalEEMod Defaults	Revisions to Match Schedule
Building Construction	230	83

CalEEMod Defaults						Revisions						Cross-Check	
Building Construction						**Building Construction**							
Equipment	**Amount**	**Usage Hours**	**Horsepower**	**Load Factor**	**HP Hours**	**Equipment**	**Amount**	**Usage Hours**	**Horsepower**	**Load Factor**	**HP Hours**	**Goal HP Hours**	**Difference**
Cranes	1	7.0	231	0.29	107,854	Cranes	3	6.47	231	0.29	107,854	107,854	-
Forklifts	3	8.0	89	0.20	98,256	Forklifts	9	7.39	89	0.20	98,256	98,256	-
Generator Sets	1	8.0	84	0.74	114,374	Generator Sets	3	7.39	84	0.74	114,374	114,374	-
Tractors/Loaders/Backhoes	3	7.0	97	0.37	173,349	Tractors/Loaders/Backhoes	6	9.70	97	0.37	173,349	173,349	-
Welders	1	8.0	46	0.45	38,088	Welders	3	7.39	46	0.45	38,088	38,088	-
				Total	**531,921**					**Total**	**531,921**	531,921	-

Adjusted construction equipment usage to match CalEEMod default total building construction HP hours.

Calculations for Adjustments to Conserve Default HP Hours (Phase 2)

	Duration	
	CalEEMod Defaults	Revisions to Match Schedule
Building Construction	230	147

CalEEMod Defaults						Revisions						Cross-Check	
Building Construction						**Building Construction**							
Equipment	**Amount**	**Usage Hours**	**Horsepower**	**Load Factor**	**HP Hours**	**Equipment**	**Amount**	**Usage Hours**	**Horsepower**	**Load Factor**	**HP Hours**	**Goal HP Hours**	**Difference**
Cranes	1	7.0	231	0.29	107,854	Cranes	2	5.48	231	0.29	107,854	107,854	-
Forklifts	3	8.0	89	0.20	98,256	Forklifts	6	6.26	89	0.20	98,256	98,256	-
Generator Sets	1	8.0	84	0.74	114,374	Generator Sets	2	6.26	84	0.74	114,374	114,374	-
Tractors/Loaders/Backhoes	3	7.0	97	0.37	173,349	Tractors/Loaders/Backhoes	6	5.48	97	0.37	173,349	173,349	-
Welders	1	8.0	46	0.45	38,088	Welders	2	6.26	46	0.45	38,088	38,088	-
				Total	**531,921**					**Total**	**531,921**	531,921	-

Adjusted construction equipment usage to match CalEEMod default total building construction HP hours.

APPENDIX C

Biological Resources Assessment and Wetland Delineation

BIOLOGICAL RESOURCES ASSESSMENT
FOR THE

±14.90-ACRE LAKEPORT SHOPPING CENTER STUDY AREA

CITY OF LAKEPORT, LAKE COUNTY, CALIFORNIA

Prepared for:
AGC Design Concept, Inc.
28524 Constellation Road
Valencia, CA 91355

Prepared by:

Salix consulting, inc.
11601 Blocker Drive, Ste. 100
Auburn, California 95603
(530) 888-0130

OCTOBER 2019

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FIGURES

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Biological Resources Assessment
for the
±14.90-ACRE LAKEPORT SHOPPING CENTER STUDY AREA

INTRODUCTION

Project Location

Salix Consulting, Inc. (Salix) has prepared a Biological Resources Assessment for the ±14.90-acre Lakeport Shopping Center study area located in the vicinity of Lakeport Blvd and highway 29, in Lake County, California. The study area is bounded by Todd Road along the western edge and Parallel Dr along the eastern edge. It is bounded on the south and southwest by residential properties, on the north and southeast by commercial properties. The approximate coordinates for the center of the property are: 39°01'48.62" N and 122° 55'28.17" W. It is situated in Section 25, Township 14 North, Range 10 West on the Lakeport, California 7.5-minute USGS topographic quadrangle (Figure 1).

Project Setting

The site occurs in the southern end of the city of Lakeport near the northwest shore of Clear Lake, at elevations ranging from approximately 1,359 feet along the eastern edge to 1,406 feet along the western edge. The study area was previously an orchard, but the trees were removed prior to our assessment, and the site is now primarily a ruderal grassland. A fast-food restaurant is located directly north of the study area, while Hospice Services of Lake County and a private residential property split the southern boundary (Figure 2).

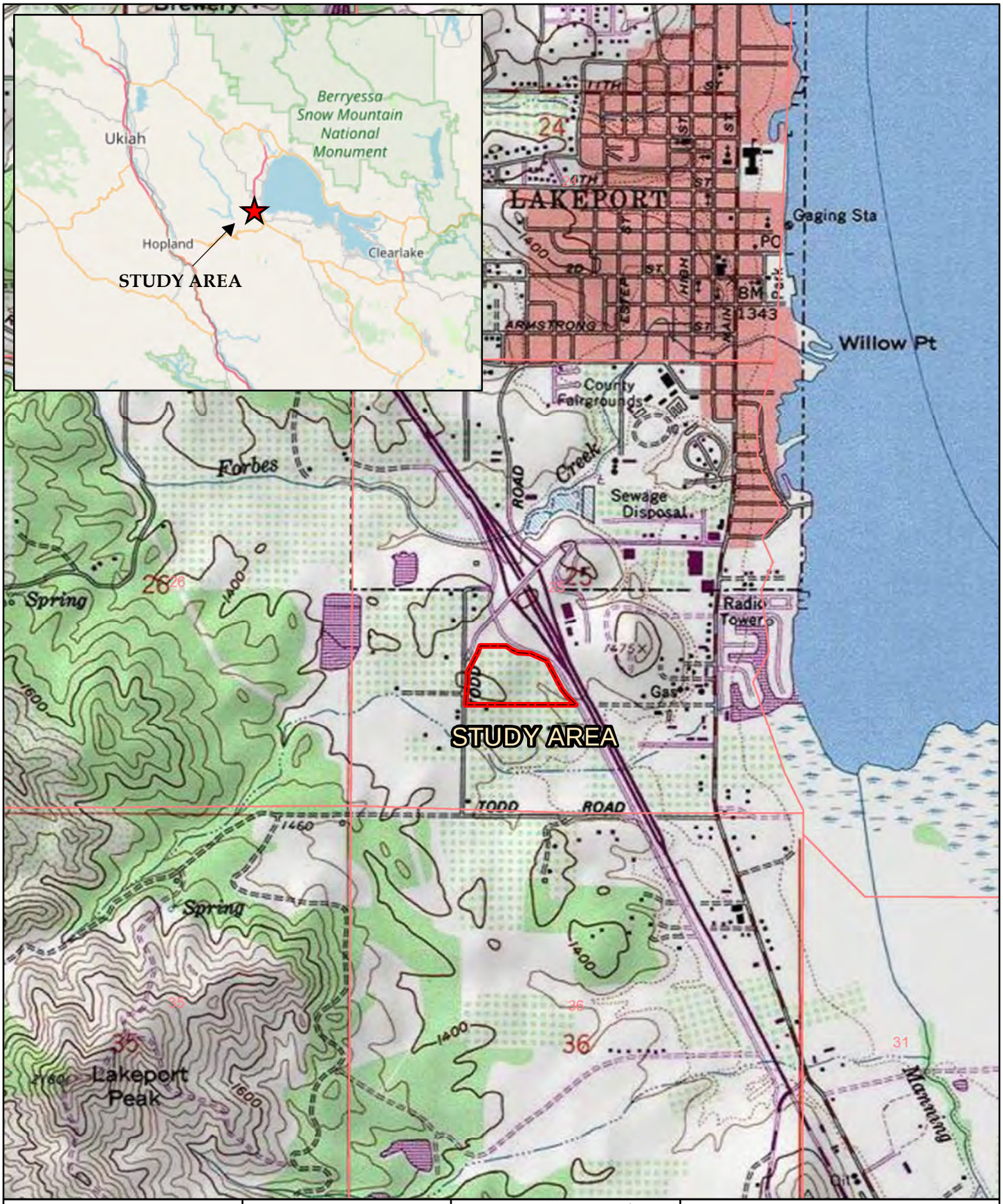
Objectives of Biological Resources Assessment

- Identify and describe the biological communities present in the study area;
- Evaluate and identify if any sensitive habitats or special-status plant and animal species exist or could exist on the site;
- Conduct an analysis to determine if waters of the U.S. are present, and
- Provide conclusions and recommendations.

METHODS

Literature Review

For this analysis, Salix biologists reviewed aerial photographs, USGS maps, and engineering drawings of the proposed tentative map. In addition, the site was flown with an unmanned aerial vehicle (UAV) to obtain an orthomosaic aerial photograph as well as oblique photos of the site. Standard publications were reviewed to provide information on life history, habitat requirements, and distribution of regionally occurring animal species.



Salix consulting, inc.

N

0 1,000 2,000

Feet

Source Maps: USGS Topographic Map
Lakeport Quad 1:24,000
S25 T14N R10W

Figure 1

SITE AND VICINITY MAP

Lakeport Shopping Center

Lakeport, Lake County, CA

Salix consulting, inc.

N

0 150 300

Feet

Project Parcel
(±14.90 acres)

Imagery: 9-09-19 Salix Consulting

Figure 2

AERIAL MAP

Lakeport Shopping Center

Lakeport, Lake County, CA

Special-Status Species Reports

To assist with the determination of which special-status species could occur within or near the study area, Salix biologists queried the California Natural Diversity Data Base (CDFW 2019), the California Native Plant Society Inventory (CNPS 2019), and the USFWS Information for Planning and Consultation (USFWS IPaC 2019) database for reported occurrences of special-status fish, wildlife, and plant species in the region surrounding the study area. The five-quadrangle search area included the Lakeport, Upper Lake, Lucerne, Highland Springs and Kelseyville USGS quadrangles. In addition, Salix biologists reviewed the California Department of Fish and Wildlife list of Species of Special Concern for the project vicinity.

For the purposes of this report, special-status species are those that fall into one or more of the following categories:

- Listed as endangered or threatened under the federal Endangered Species Act (or candidate species, or formally proposed for listing);
- Listed as endangered or threatened under the California Endangered Species Act (or proposed for listing);
- Designated as rare, protected, or fully protected pursuant to California Fish and Game Code;
- Designated a Species of Special Concern by the California Department of Fish and Wildlife, or
- Designated as Ranks 1, 2, or 3 on lists maintained by the California Native Plant Society.

Field Assessments

Field assessments of the study area were conducted by Salix Principal Biologist Jeff Glazner and Associate Biologist Joelle Soch on September 9, 2019. All areas of the property were walked and evaluated to characterize existing conditions, to assess the potential for sensitive plant and wildlife resources to occur, and to determine if waters of the U.S. were present onsite. During the field assessment, biological communities were mapped and assessed for the potential to support special-status species. Plants and animals observed were documented, and ground photos were taken. The Unmanned Aerial Vehicle (UAV) was utilized to obtain an orthomosaic aerial photo, which is used in this document.

Plants observed are listed in Appendix A; animals observed are listed in the *Wildlife Occurrence and Use* section below. Plant names are according to The Jepson Manual: Vascular Plants of California, Second Edition (Baldwin et. al. 2012) and updated literature that supersedes the Jepson Manual. Standard manuals were used as needed to identify wildlife species observed.

Biological Communities

The site is mostly a ruderal grassland. Nearly all of the site was formerly an orchard; the trees had recently pulled out and left in place. A second habitat type, blackberry scrub, is present along the northern property line and Parallel Drive (Figure 3). Aerial photos of the property are presented in Figure 4a, and ground photos of the property are presented in Figures 4b and 4c. Potential waters of the U.S. are embedded within the ruderal grassland and are mapped in the wetland delineation to be submitted under separate cover. These areas are discussed briefly below under "Potential Waters of the U.S."

Ruderal

Nearly the entire site is ruderal grassland. Because the site was formerly an orchard (a non-natural habitat), and the orchard was recently eliminated, the site continues to be manipulated and disturbed. Vegetation throughout the site is weedy with common species being Italian thistle (*Carduus pycnocephalus),* yellow star thistle (*Centaurea solstitialis),* prickly lettuce (*Lactuca serriola),* long-beaked hawkbit (*Leontodon saxatilis),* common madia (*Madia elegans),* Spanish lotus (*Acmispon americanus),* sharppoint fluvellin (*Kickxia elatine),* ripgut grass (*Bromus diandrus*), wild oat (*Avena fatua),* and Italian ryegrass (*Festuca perennis).*

Blackberry Scrub

The site contains a small area of woody vegetation in one cluster along the northern boundary. Himalayan blackberry (*Rubus armeniacus*) forms a dense shrub layer, and some trees are present including a few blue oak (*Quercus douglasii*) and valley oak (*Q. lobata*), along with a large arroyo willow (*Salix lasiolepis*). A few arroyo willow also occur along the southeastern boundary. Northern California black walnut occurs in the study area but in the form of stump sprouts from remnant orchard trees.

Potential Waters of the U.S

A wetland delineation has been conducted on the site and is submitted under separate cover. Approximately 0.33 acre of potential waters of the U.S. have been identified on the site in the form of a wetland swale. The wetland swale is a very minor wetland feature that is saturated during the wet season and dry the remainder of the year. It supports a weak wetland community of Italian ryegrass, dense-flower spike-primrose (*Epilobium densiflorum*), and patches of tall nutsedge (*Cyperus eragrostis*) and annual beardgrass (*Polypogon monspeliensis*).

Salix consulting, inc.

N

0 100 200

Feet

Project Parcel (±14.90 acres)

Imagery: 9-09-19 Salix Consulting

Figure 3

HABITAT MAP

Lakeport Shopping Center

Lakeport, Lake County, CA

Looking southeast over eastern area of site. *Photo date: 9-09-19.*

Looking northwest over site. *Photo date: 9-09-19.*

Salix consulting, inc.

Figure 4a

SITE PHOTOS

Lakeport Shopping Center

Lakeport, Lake County, CA

Looking southeast from Todd Rd over eastern area of site and wetland swale. *Photo date: 9-09-19.*

Looking east along southern property line over wetland swale.
Photo date: 9-09-19.

Salix consulting, inc.

Figure 4b

SITE PHOTOS
Lakeport Shopping Center
Lakeport, Lake County, CA

Looking west along southern fence-line from southwestern corner of site. *Photo date: 9-09-19.*

Looking northeast from southwest corner of site: uphill view of site's western area. *Photo date: 9-09-19.*

Salix consulting, inc.

Figure 4c

SITE PHOTOS

Lakeport Shopping Center

Lakeport, Lake County, CA

Wildlife Occurrence and Use

Due to the disturbed nature of the site, quality habitat and species diversity are mostly lacking. However, the site does provide habitat for common animals in the region. The ruderal grassland provides foraging habitat for a variety of resident and migratory songbirds, upland birds, raptors, and small to mid-sized mammals. Trees provide suitable nesting habitat for many species. Resident and migratory songbirds may nest on the property. Mid-sized mammals such as coyote would forage and prey on smaller resident mammals.

Animal species observed include mourning dove (*Zenaida macroura),* black phoebe (*Sayornis nigricans),* lesser goldfinch (*Spinus psaltria),* turkey vulture (*Cathartes aura*), northwestern fence lizard (*Sceloporus occidentalis occidentalis*), mule deer (*Odocoileus hemionus*), western gray squirrel (*Sciurus griseus*), and black-tailed jackrabbit (*Lepus californicus).*

Special-Status Species

To determine potentially-occurring special-status species, the standard databases from the USFWS, CDFW, and CNPS (as described in *Special-Status Species Reports*, page 4 above) were queried and reviewed. These searches provided a list of regionally occurring species and were used to determine which species have some potential to occur within or near the study area. Appendix B lists potentially-occurring special-status plants, and Appendix C lists special-status animals compiled from our queries as described above. The field survey and the best professional judgment of Salix biologists were used to further refine the tables in Appendices B and C. Additionally, plant species found on the CNPS List 4 are not considered further in the document. Figure 5a and 5b shows the approximate locations of reported occurrences of CNDDB special-status plants and wildlife within a five-mile radius of the study area.

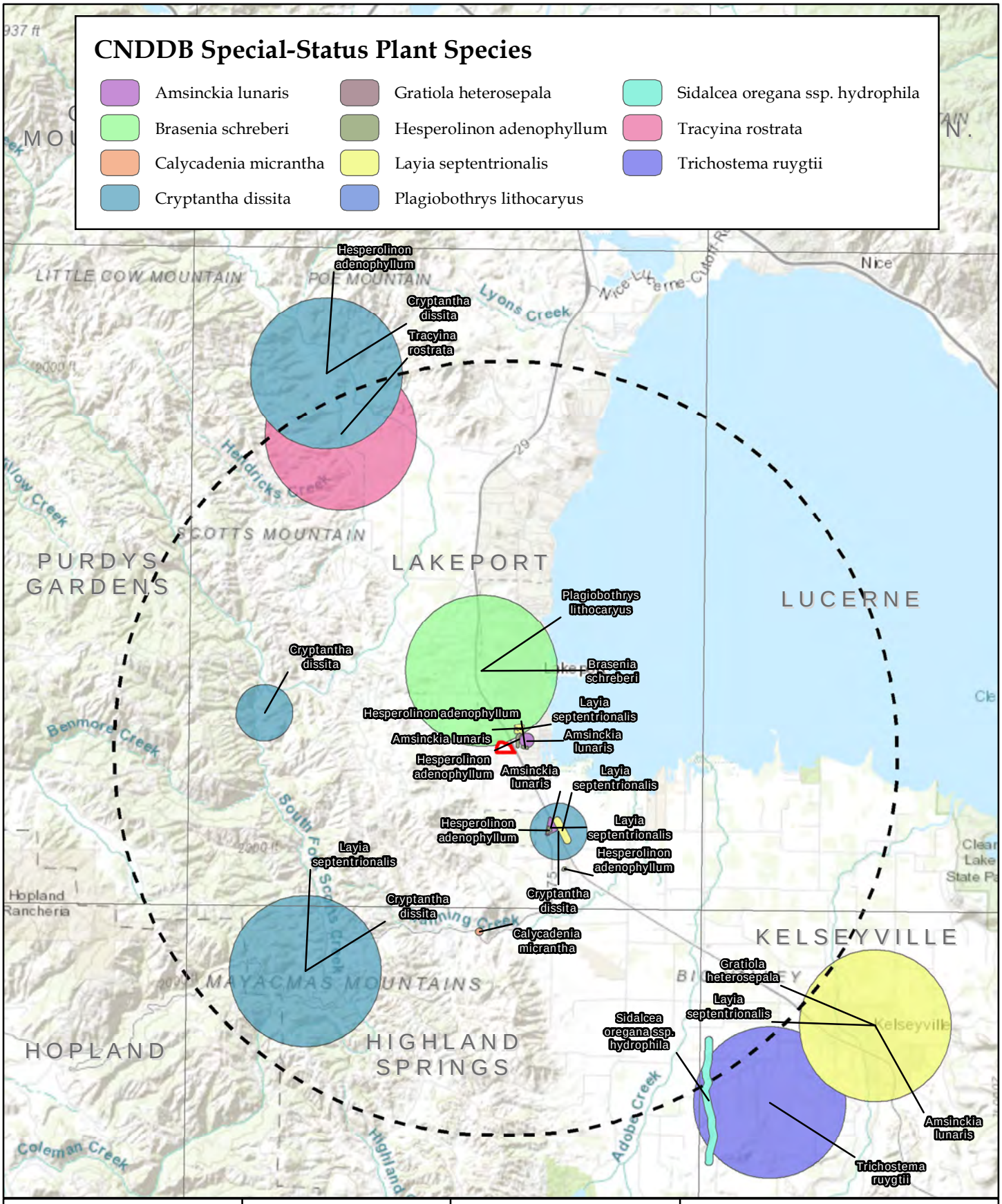
Plants

Of the 28 potentially-occurring plant species identified in the CNDDB query (Appendix B), 11 were identified as occurring within or near a five-mile radius of the study area (Figure 5a), but none of these were determined to have any potential for occurring onsite due to the absence of suitable habitats or substrates.

Of the 28 potentially-occurring plant species identified in Appendix B, 12 species were eliminated from further consideration due to the absence of serpentine or volcanic substrates and other soil requirements.

These include:

- Small-flowered calycadenia (*Calycadenia micrantha*)
- Hall's harmonia (*Harmonia hallii*)
- Colusa layia (*Layia septentrionalis*)
- Mount Diablo cottonweed (*Micropus amphibolus*).
- Bent-flowered fiddleneck (*Amsinckia lunaris)*



Salix consulting, inc.

Figure 5a

CNDDB OCCURRENCES MAP

Lakeport Shopping Center

Lakeport, Lake County, CA

- Serpentine cryptantha (*Cryptantha dissita)*
- Jewelflower (*Streptanthus hesperidis)*
- Konocti manzanita (*Arctostaphylos manzanita elegans)*
- Raiche's manzanita (*Arctostaphylos stanfordiana raichei)*
- Glandular dwarf flax (*Hesperolinon adenophyllum)*
- Two-carpellate western flax (*Hesperolinon bicarpellatum)* and
- Brandegee's eriastrum (*Eriastrum brandegeeae)*
- Napa bluecurls (*Trichostema ruygtii*)

Thirteen (13) other species identified in Appendix B were also determined to have no potential for occurring onsite due to the absence of suitable wet habitats or vernal pools.

These include:

- Burke's goldfields (*Lasthenia burkei*)
- Mayacmas popcornflower (*Plagiobothrys lithocaryus*)
- Watershield *(Brasenia schreberi*)
- Legenere (*Legenere limosa*)
- Bristly sedge (*Carex comosa*)
- Marsh checkerbloom (*Sidalcea oregana ssp. hydrophila*)
- Bogg's Lake hedge-hyssop (*Gratiola heterosepala*)
- Slender Orcutt grass (*Orcuttia tenuis*)
- Few-flowered navarretia (*Navarretia leucocephala ssp. pauciflora*)
- Many-flowered navarretia (*Navarretia leucocephala ssp. plieantha*)
- Eel-grass pondweed (*Potamogeton zosteriformis*) and
- Bolander's horkelia (*Horkelia bolanderi*)

Finally, three (3) of the 28 potentially-occurring plant species identified in Appendix B were determined to have no potential for occurring onsite due to the absence of woodland or forest habitat and to the highly disturbed nature of the site.

These include:

- Beaked tracyina (*Tracyina rostrata*)
- Anthony Peak lupine (*Lupinus antoninus*) and
- Cobb Mountain lupine (*Lupinus sericatus*)

In summary, 28 special-status plants are known from the region surrounding the study area (Appendix B), and 11 of these plants are known from within a five-mile radius and are shown in Figures 5a. All of the plant species identified in Appendix B require

habitats or substrates that do not occur within the study area. The wetland swale that traverses the site from the northwest corner to the southeast corner was examined on September 9, 2019, in consideration of its potential to support special-status species that occur in wetland swales. It was determined that this feature does not provide suitable habitat for any of the wetland species listed in Appendix B. Therefore, all twenty-eight were determined to have no potential for occurring onsite and were eliminated from further consideration.

Animals

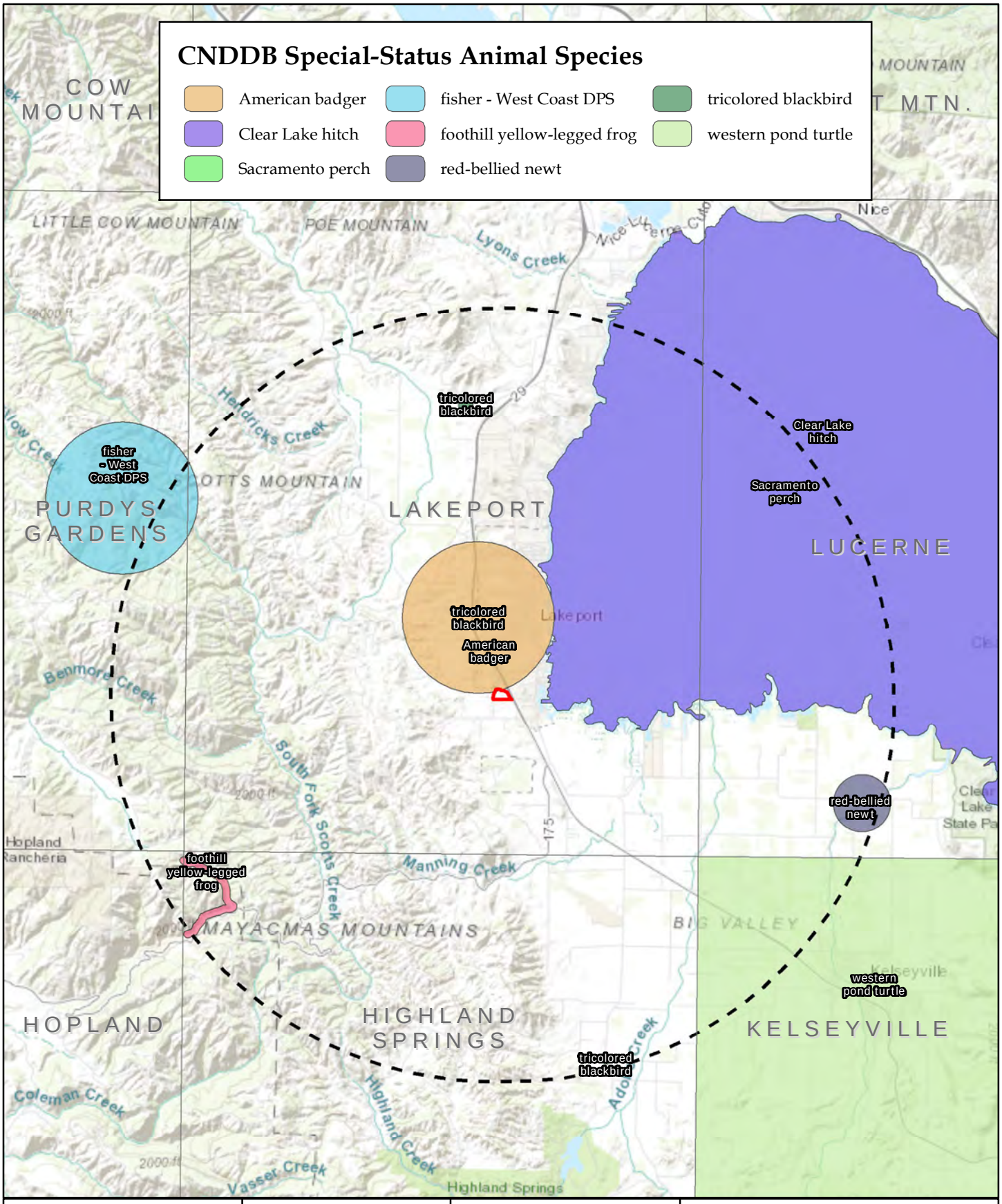
Of the 13 animal species identified in the CNDDB and USFWS queries (Appendix C), eight (8) were identified as occurring within or near the five-mile radius of the study area (Figure 5b). All of the species occurring within a 5-mile radius were determined to have no potential for occurring onsite due to the absence of suitable aquatic and/or nesting habitat or due to being located outside of the species' known range. These include:

- American badger (*Taxidea taxus)*
- Clear Lake hitch (*Lavinia exilicauda chi)*
- Sacramento perch (*Archoplites interruptus)*
- Fisher - West Coast DPS (*Pekania pennanti)*
- Foothill yellow-legged frog (*Rana boylii)*
- Red-bellied newt (*Taricha rivularis)*
- Tricolored blackbird (*Agelaius tricolor)*
- Western pond turtle (*Actinemys marmorata)*

Five (5) other species identified in the CNDDB query but not reported to occur within a 5-mile radius were also determined to have no potential for occurring onsite due to the absence of suitable habitat or due to the site being located outside of the species' known range. These include:

- Delta smelt (*Hypomesus transpacificus)*
- Northern spotted owl (*Strix occidentalis caurina)*
- California red-legged frog (*Rana draytonii)*
- Townsend's big-eared bat (*Corynorhinus townsendii townsendii)*
- Purple martin - *Progne subis*

Of the 13 special-status animals identified through the CNDDB query and other literature as occurring within the broader region surrounding the study area, eight (8) were identified as occurring within a five-mile radius of the study area. These 13 species were determined to have no potential for occurring onsite due to the absence of suitable habitat such as vernal pool or other wet/aquatic habitats, a host plant, or suitable nesting habitat. In one case (delta smelt), the site is located outside of the species' known range.



Salix consulting, inc.

N

0 5,000 10,000

Feet

5 Mile Radius

Study Area

Figure 5b

CNDDB OCCURRENCES MAP

Lakeport Shopping Center

Lakeport, Lake County, CA

In particular, the study area lacks any perennial aquatic habitat such as lakes, sloughs, rivers, streams and ponds that would support Clear Lake hitch, Sacramento perch, California red-legged frog, western pond turtle, foothill yellow-legged frog, or red-bellied newt.

In addition, the site is highly disturbed and lacks the dense woodland or vegetation habitat that would be necessary breeding and nesting habitat for the northern spotted owl and the tricolored blackbird. The disturbed nature of the site also precludes the dense shrub or forest habitat necessary to support the American badger and the fisher. No suitable cavity habitat (such as bridges, snags, caves, tunnels or abandoned buildings) occurs on the site to provide necessary nesting habitat for the purple martin or roosting/maternity habitat for Townsend's big-eared bat.

RECOMMENDATIONS

Waters of the United States

The site contains areas being evaluated as potential waters of the U.S. If these areas are deemed to be waters of the U.S. and any are proposed to be filled by the proposed project, a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers would be required. In addition, a Clean Water Act Section 401 water quality certification from the Regional Water Quality Control Board would be required.

Streams, Pond, and Riparian Habitat

Impacts to the bed, bank, or channel of streams or ponds require a Lake & Streambed Alteration Agreement (LSAA) from the California Department of Fish and Wildlife (CDFW). The site does not contain any areas under the jurisdiction of CDFW.

Tree Conservation

The Lakeport Municipal Code (Title 17.21) governs the "preservation of native trees, including oak, redwood, willow, and cottonwood." A few blue oak and valley oak (along with a large arroyo willow) are present in the blackberry scrub on the northern boundary of the site. The applicant should consult with the City Planning Department to determine what, if any, provisions of the Regulations for Tree Preservation are applicable.

Special-Status Plants

The study area contains no suitable habitats for special-status plant species that may occur in the region. This was confirmed during the field assessment. No further studies are recommended.

Special-Status Wildlife

Nesting Raptors and Migratory Birds

The site may provide suitable nesting habitat for some common raptors known from the region, and for other birds protected by the Migratory Bird Treaty Act. Take of any active raptor nest is prohibited under California Fish and Game Code sections 3503, 3503.5, and 3513. If tree removal or other ground disturbance takes place during the breeding/nesting season (February 1 through August 31), disturbance of nesting activities could occur. To avoid impacts to nesting birds, disturbance should occur outside of the typical nesting season. If disturbance occurs at any time during the nesting season, CDFW typically requires that a pre-construction survey be conducted by a qualified biologist within one week prior to initiation of proposed development activities. If active nests are found during the pre-construction survey, buffer zones will be established around any identified nests, and the nests will be monitored by a qualified biologist until the offspring have fledged. Consultation with the City of Lakeport Planning Department is recommended.

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Appendix A.
Plant Species Observed Within the Lakeport Shopping Center Study Area

Appendix A

Lakeport Shopping Center - Plants Observed, Summer 2019

Angiosperms - Dicots

Amaranthaceae - Amaranth Family

Amaranthus blitoides	Mat amaranth

Apiaceae (Umbelliferae) - Carrot Family

**Daucus carota*	Queen Anne's lace
**Torilis arvensis*	Field hedgeparsley

Asteraceae (Compositae) - Sunflower Family

Baccharis pilularis	Coyote brush
Calycadenia pauciflora	Calycadenia
**Carduus pycnocephalus*	Italian thistle
**Centaurea solstitialis*	Yellow starthistle
Euthamia occidentalis	Western goldenrod
**Lactuca serriola*	Prickly lettuce
**Leontodon saxatilis*	Long-beaked hawkbit
Madia elegans	Common madia

Brassicaceae (Cruciferae) - Mustard Family

**Raphanus sativus*	Wild radish

Chenopodiaceae - Goosefoot Family

**Chenopodium album*	White pigweed

Convolvulaceae - Morning-Glory Family

**Convolvulus arvensis*	Bindweed

Dipsacaceae - Teasel Familly

**Dipsacus fullonum*	Fuller's teasel

Euphorbiaceae - Spurge Family

Croton setiger	Turkey mullein

Fabaceae (Leguminosae) - Legume Family

Acmispon americanus	Spanish lotus
**Genista monspessulana*	French broom
**Trifolium hirtum*	Rose clover
**Vicia villosa*	Winter vetch

Fagaceae - Oak Family

Quercus douglasii	Blue oak
Quercus lobata	Valley oak

Hypericaceae - St. John's Wort Family

**Hypericum perforatum subsp. perforatum*	Klamathweed

Juglandaceae - Walnut Family

Juglans hindsii	Northern California black walnut

Lamiaceae (Labiatae) - Mint Family

**Mentha pulegium*	Pennyroyal

* Indicates a non-native species

Onagraceae - Evening Primrose Family

Epilobium brachycarpum	Summer cottonweed
Epilobium densiflorum	Dense-flower spike-primrose

Plantaginaceae - Plantain Family

**Kickxia elatine*	Sharppoint fluvellin
**Plantago lanceolata*	English plantain

Polygonaceae - Buckwheat Family

**Rumex crispus*	Curly dock

Rosaceae - Rose Family

**Rubus armeniacus*	Himalayan blackberry

Salicaceae - Willow Family

Salix lasiolepis	Arroyo willow

Solanaceae - Nightshade Family

**Nicotiana acuminata var. multiflora*	Manyflower tobacco

Vitaceae - Grape Family

Vitis californica	California wild grape

Angiosperms -Monocots

Cyperaceae - Sedge Family

Cyperus eragrostis	Tall flatsedge

Poaceae (Gramineae) - Grass Family

**Avena fatua*	Wild oat
**Briza maxima*	Rattlesnake grass
**Bromus diandrus*	Ripgut grass
**Bromus hordeaceus*	Soft chess
**Cortaderia jubata*	Urguayan pampas grass
**Cynosurus echinatus*	Hedgehog dogtail
**Dactylis glomerata*	Orchard grass
**Elymus caput-medusae*	Medusahead
Elymus glaucus	Blue wildrye
**Festuca perennis*	Italian ryegrass
Hordeum jubatum	Foxtail barley
**Hordeum marinum subsp. gussoneanum*	Mediterranean barley
**Phalaris aquatica*	Harding grass
**Polypogon monspeliensis*	Annual beard grass
**Triticum aestivum*	Wheat

* Indicates a non-native species

Appendix B.
Potentially-Occurring Special-Status Plants in the Region of the Lakeport Shopping Center Study Area

Appendix B

Lakeport Shopping Center Potentially-Occurring Special-Status Plant Species

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
Asteraceae (Compositae)				
Calycadenia micrantha Small-flowered calycadenia	Fed: - State: - CNPS: Rank 1B.2	June-September	Chaparral; meadows and seeps; valley and foothill grasslands (roadsides, talus, sometimes serpentine).	None. Site lacks suitable substrate and habitat.
Harmonia hallii Hall's harmonia	Fed: - State: - CNPS: Rank 1B.	April-May	Chaparral (serpentinite).	None. No suitable habitat present on site.
Lasthenia burkei Burke's goldfields	Fed: FE State: CE CNPS: Rank 1B.1	April-June	Meadows (mesic); vernal pools.	None. No suitable habitat present on site.
Layia septentrionalis Colusa layia	Fed: - State: - CNPS: Rank 1B.2	April-May	Chaparral; cismontane woodland, valley and foothill grassland; [sandy, serpentinite].	None. No suitable habitat present on site.
Micropus amphibolus Mount Diablo cottonweed	Fed: - State: - CNPS: Rank 3.2	March-May	Broad-leaf upland forest; cismontane woodland; valley and foothill grassland. [rocky]	None. No suitable habitate present on site. Site lacks rocky substrate.
Tracyina rostrata Beaked tracyina	Fed: - State: - CNPS: Rank 1B.	May-June	Cismontane woodland; valley and foothill grassland.	None. Site formerly an orchard, presently too distrubed to support species.

Appendix B

Lakeport Shopping Center Potentially-Occurring Special-Status Plant Species

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
Boraginaceae				
Amsinckia lunaris Bent-flowered fiddleneck	Fed: - State: - CNPS: Rank 1B.2	March-June	Coastal bluff scrub; cismontane woodland; valley and foothill grassland. [gravelly slopes, often serpentine]	None. Site lacks suitable substrate.
Cryptantha dissita Serpentine cryptantha	Fed: - State: - CNPS: Rank 1B.2	April-June	Chaparral (serpentinite).	None. Site lacks suitable substrate.
Plagiobothrys lithocaryus Mayacmas popcornflower	Fed: - State: - CNPS: Rank 1A.	April-May	Chaparral; cismontane woodland; valley and foothill grassland; [mesic].	None. Site lacks suitable wet habitat. Presumed extinct.
Brassicaceae (Cruciferae)				
Streptanthus hesperidis Jewelflower	Fed: - State: - CNPS: Rank 1B.2	May-July	Serpentinite, rocky. Chaparral (openings). Cismontane woodland	None. None. Site lacks suitable substrate and habitat.
Cabombaceae				
Brasenia schreberi Watershield	Fed: State: CNPS: Rank 2B.3	June-September	Marshes and swamps. [freshwater]	None. No suitable habitat present on site.
Campanulaceae				
Legenere limosa Legenere	Fed: - State: - CNPS: Rank 1B.1	April-June	Vernal pools and seasonal wetlands.	None. No suitable habitat present on site.

Appendix B

Lakeport Shopping Center Potentially-Occurring Special-Status Plant Species

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
Cyperaceae				
Carex comosa Bristly sedge	Fed: - State: - CNPS: Rank 2B.1	May-September	Marshes and swamps.	None. No suitable habitat present on site.
Ericaceae				
Arctostaphylos manzanita elegans Konocti manzanita	Fed: - State: - CNPS: Rank 1B.3	March-May	Chaparral, Cismontane woodland, Lower Montane coniferous forest. Volcanic.	None. Site lacks suitable substrate and habitat.
Arctostaphylos stanfordiana raichei Raiche's manzanita	Fed: - State: - CNPS: Rank 1B.	February-April	Chaparral (often serpentinite).	None. Site lacks suitable substrate and habitat.
Fabaceae (Leguminosae)				
Lupinus antoninus Anthony Peak lupine	Fed: - State: - CNPS: Rank 1B.	May-July	Lower montane coniferous forest; upper montane coniferous forest.	None. No suitable habitat present on site.
Lupinus sericatus Cobb Mountain lupine	Fed: - State: - CNPS: Rank 1B.2	March-June	Chaparral; cismontane woodland; lower coniferous forest.	None. No suitable habitat present on site.
Lamiaceae (Labiatae)				
Trichostema ruygtii Napa bluecurls	Fed: - State: - CNPS: Rank 1B.2	June-October	Chaparral. Cismontane woodland. Lower montane coniferous forest.Valley and foothill grassland. Vernal pools.	None. No suitable habitat present on site.

Appendix B

Lakeport Shopping Center Potentially-Occurring Special-Status Plant Species

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
Linaceae				
Hesperolinon adenophyllum Glandular dwarf flax	Fed: - State: - CNPS: Rank 1B.	May-August	Chaparral; valley and foothill grassland; [serpentinite].	None. None. Site lacks suitable substrate and habitat.
Hesperolinon bicarpellatum Two-carpellate western flax	Fed: - State: - CNPS: Rank 1B.2	May-July	Chaparral (serpentinite).	None. None. Site lacks suitable substrate and habitat.
Malvaceae				
Sidalcea oregana hydrophila Marsh checkerbloom	Fed: - State: - CNPS: Rank 1B.	July-August	Meadows; riparian forest [mesic].	None. No suitable habitat present on site.
Plantaginaceae				
Gratiola heterosepala Bogg's Lake hedge-hyssop	Fed: - State: CE CNPS: Rank 1B.2	April-August	Vernal pools.	None. No suitable habitat present on site.
Poaceae (Gramineae)				
Orcuttia tenuis Slender Orcutt grass	Fed: FT State: CE CNPS: Rank 1B.1	May-September	Vernal pools.	None. No suitable habitat present on site.
Polemoniaceae				
Eriastrum brandegeeae Brandegee's eriastrum	Fed: - State: - CNPS: Rank 1B.1	May-August	Chaparral; cismontane woodland; [volcanic].	None. None. Site lacks suitable substrate and habitat.

Appendix B

Lakeport Shopping Center Potentially-Occurring Special-Status Plant Species

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
Navarretia leucocephala pauciflora Few-flowered navarretia	Fed: FE State: CT CNPS: Rank 1B.1	June-June	Vernal pools (volcanic ash flow).	None. No suitable habitat present on site.
Navarretia leucocephala plieantha Many-flowered navarretia	Fed: FE State: CE CNPS: Rank 1B.2	May-June	Vernal pools (volcanic ash flow).	None. No suitable habitat present on site.
Potamogetonaceae				
Potamogeton zosteriformis Eel-grass pondweed	Fed: - State: - CNPS: Rank 2B.	June-July	Marshes and swamps (assorted freshwater).	None. No suitable habitat present on site.
Rosaceae				
Horkelia bolanderi Bolander's horkelia	Fed: - State: - CNPS: Rank 1B.	June-August	Lower montane coniferous forest; meadows (edges, vernally mesic); valley and foothill grassland (edge habitats).	None. No suitable habitat present on site.

***Status**

Federal:
FE - Federal Endangered
FT - Federal Threatened
FPE - Federal Proposed Endangered
FPT - Federal Proposed Threatened
FC - Federal Candidate
FSS - Forest Service Sensitive
FSW - Forest Service Watchlist

State:
CE - California Endangered
CT - California Threatened
CR - California Rare
CSC - California Species of Special Concern

CNPS (California Native Plant Society - List.RED Code):
Rank 1A - Extinct
Rank 1B - Plants rare, threatened, or endangered in California and elsewhere
Rank 2A- Plants extinct in California, but more common elsewhere
Rank 2B - Plants rare, threatened, or endangered in California, more common elsewhere
Rank 3 - Plants about which more information is needed, a review list
Rank 4 - Plants of limited distribution, a watch list
RED Code
1 - Seriously endangered (>80% of occurrences threatened)
2 - Fairly endangered (20 to 80% of occurrences threatened)
3 - Not very endangered (<20% of occurrences threatened)

Appendix C.
Potentially-Occurring Special-Status Animals in the Region of the Lakeport Shopping Center Study Area

Appendix C

Lakeport Shopping Center Potentially-Occuring Special-Status Animal Species

	Status*	Habitat	Probability on Project Site
Fish			
Delta smelt *Hypomesus transpacificus*	Fed: FT State: CT Other: -	Endemic to the Sacramento-San Joaquin Delta in coastal and brackish waters. Occurs seasonally in Suisun and San Pablo bays. Spawning usually occurs in dead-end sloughs and shallow channels.	None. Site outside of range of species.
Sacramento perch *Archoplites interruptus*	Fed: - State: CSC Other:	Historically found in slow-moving rivers, sloughs, and ponds in the Central Valley.	None. No suitable habitat present on site.
Clear Lake hitch *Lavinia exilicauda chi*	Fed: - State: CT Other:	Found in lakes, sloughs, and slow-moving sections of rivers and streams.Found in both warm and cool water. Considerable salt tolerance.	None. No suitable habitat (lakes, sloughs, rivers or streams) present on site.
Amphibians			
Red-bellied newt *Taricha rivularis*	Fed: - State: SSC Other:	Found in California along the coast from Bodega in Sonoma County, inland to Lower Lake, and north to Honeydew, Humboldt County. It lives in coastal woodlands, especially in redwood forests.	None. No suitable habitat (coastal woodlands) present on site.
California red-legged frog *Rana draytonii*	Fed: FT State: SSC Other: -	Occurs in lowlands and foothills in deeper pools and slow-moving streams, usually with emergent wetland vegetation. Requires 11-20 weeks of permanent water for larval development.	None. No suitable habitat (pools or streams) present on site.
Foothill yellow-legged frog *Rana boylii*	Fed: - State: CC Other: *	Found in partially shaded, shallow streams with rocky substrates. Needs some cobble-sized rocks as a substrate for egg laying. Requires water for 15 weeks for larval transformation.	None. No suitable habitat (shallow streams with rocky substrates) present on site.
Reptiles			
Western pond turtle *Actinemys marmorata*	Fed: - State: SSC Other: -	Inhabits ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs suitable basking sites and upland habitat for egg laying.	None. No suitable wet habitat (ponds, marshes, rivers, streams or irrigation ditches) present on site.

Appendix C

Lakeport Shopping Center Potentially-Occuring Special-Status Animal Species

	Status*	Habitat	Probability on Project Site
Birds			
Northern spotted owl *Strix occidentalis caurina*	Fed: FT State: CT Other: -	Dense, old growth, multi-layered, mixed conifer, redwood, and Douglas fir habitats with large trees and snags. Sea level to 7,600 feet.	None. No suitable breeding habitat (dense mixed conifer forest) present on site.
Purple martin *Progne subis*	Fed: - State: SSC Other: *	Breeds in riparian woodland, oak woodland, open coniferous forests. Secondary cavity nester. Requires nest sites close to open foraging areas of water or land.	None. No suitable breeding habitat (riparian woodland, oak woodland or coniferous forest) present on site.
Tricolored blackbird *Agelaius tricolor*	Fed: - State: CT Other: CSC	Colonial nester in dense cattails, tules, brambles or other dense vegetation. Requires open water, dense vegetation, and open grassy areas for foraging.	None. No suitable breeding habitat (open water with dense vegetation) present on site.
Mammals			
Townsend's big-eared bat *Corynorhinus townsendii townsendii*	Fed: - State: - Other: SSC	Found in a variety of habitats. Most common in mesic sites with forest or woodland component. Roosting and maternity sites in caves, mines, lava tubes, tunnels, and buildings. Gleans insects from brush or trees and feeds along habitat edges.	None. No suitable roosting/breeding habitat (snags, tree cavities, caves, tunnels or abandoned buildings) present on site.
Fisher - West Coast DPS *Pekania pennanti*	Fed: FPT State: CC Other: SSC	Occurs in intermediate to large-tree stage coniferous forests and riparian woodlands with a high percent level of canopy closure. .	None. No suitable habitat (forest or woodlands with a high percent level of canopy closure) present on site.
American badger *Taxidea taxus*	Fed: - State: CSC Other: -	Occurs in dry, open soils in herbaceous, shrub, and forest habitats. Needs friable, uncultivated soil. Preys on rodents.	None. No suitable habitat present on site.

Appendix C

Lakeport Shopping Center Potentially-Occuring Special-Status Animal Species

	Status*	Habitat	Probability on Project Site

***Status**

Federal:	State:	Other:
FE - Federal Endangered	CE - California Endangered	Some species have protection under the other designations, such as the California Department of Forestry Sensitive Species, Bureau of Land Management Sensitive Species, U.S.D.A. Forest Service Sensitive Species, and the Migratory Bird Treaty Act. Raptors and their nests are protected by provisions of the California Fish and Game Code. Certain areas, such as wintering areas of the monarch butterfly, may be protected by policies of the California Department of Fish and Game.
FT - Federal Threatened	CT - California Threatened	
FPE - Federal Proposed Endangered	CR - California Rare	
FPT - Federal Proposed Threatened	CC - California Candidate	
FC - Federal Candidate	CFP - California Fully Protected	
FPD - Federal Proposed for Delisting	CSC - California Species of Special Concern	WL - CDFG Watch List

WETLAND DELINEATION
FOR THE

±14.90-ACRE LAKEPORT SHOPPING CENTER STUDY AREA

LAKE COUNTY, CALIFORNIA

Prepared for:
AGC Design Concept, Inc.
28524 Constellation Road
Valencia, CA 91355

Prepared by:

Salix consulting, inc.
11601 Blocker Drive, Ste. 100
Auburn, California 95603
(530) 888-0130

OCTOBER 2019

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APPENDICES

WETLAND DELINEATION
FOR THE
±14.90-ACRE LAKEPORT SHOPPING CENTER STUDY AREA

INTRODUCTION

Location and Setting

Salix Consulting, Inc. (Salix) prepared a wetland delineation for the ±14.90-acre Lakeport Shopping Center study area located in the vicinity of Lakeport Blvd and Highway 29, in Lake County, California. The study area is bounded by Todd Road along the western edge and Parallel Drive along the eastern edge. It is bounded on the south and southwest by residential properties, on the north and southeast by commercial properties. The approximate coordinates for the center of the property are: 39°01'48.62" N and 122° 55'28.17" W. It is situated in Section 25, Township 14 North, Range 10 West on the Lakeport, California 7.5-minute USGS topographic quadrangle (Figure 1).

The site occurs in the southern end of the city of Lakeport near the northwest shore of Clear Lake Valley at elevations ranging from approximately 1,359 feet along the eastern edge to 1,406 feet along the western edge. The study area was previously used as an orchard, but the orchard trees were removed prior to the survey, and the site is now primarily ruderal. A fast-food restaurant is located directly north of the study area, while Hospice Services of Lake County and a private residential property split the southern boundary. (Figure 2).

CONTACT INFORMATION

Applicant:
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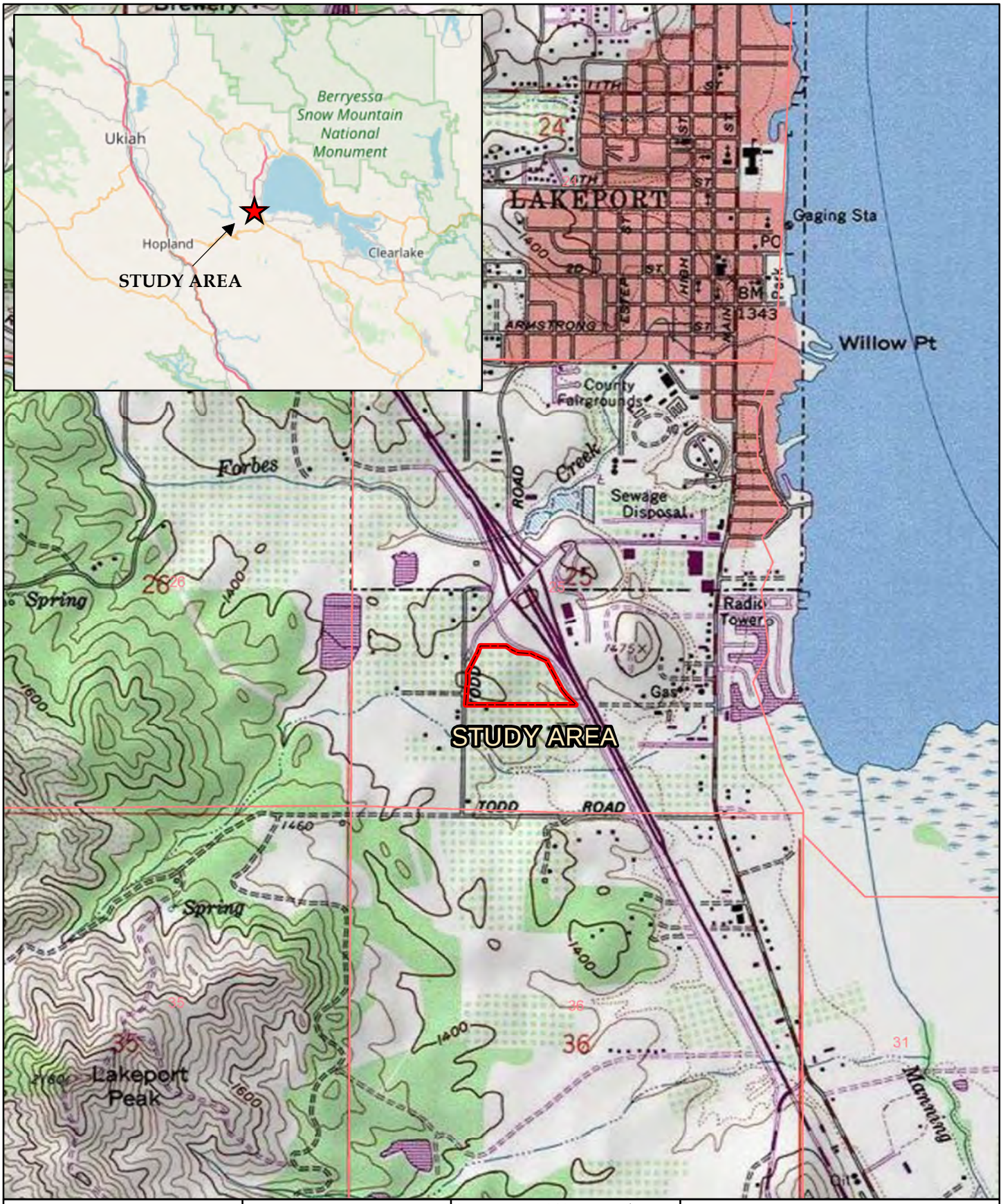
Valencia, CA 91355
Phone: (661) 295-1111
Contact: Alex Cuevas

Delineated by:
Salix Consulting, Inc.
11601 Blocker Drive, Suite 100
Auburn, California 95603
Phone: (530) 888-0130
Contact: Jeff Glazner



Salix consulting, inc.

N

0 1,000 2,000

Feet

Source Maps: USGS Topographic Map
Lakeport Quad 1:24,000
S25 T14N R10W

Figure 1

SITE AND VICINITY MAP

Lakeport Shopping Center

Lakeport, Lake County, CA

Salix consulting, inc.

N

0 150 300

Feet

Project Parcel
(±14.90 acres)

Imagery: 9-09-19 Salix Consulting

Figure 2

AERIAL MAP

Lakeport Shopping Center

Lakeport, Lake County, CA

METHODOLOGY

Waters of the United States were delineated on September 9, 2019 by Jeff Glazner and Joelle Soch using the 1987 Corps Manual (Environmental Laboratory 1987) as amended by the Arid West Regional Supplement (U.S. Army Corps of Engineers 2008).

The site was observed on foot and flown with an unmanned aerial vehicle (UAV) to obtain an orthomosaic aerial photograph as well as oblique photos of the parcel. Potential waters of the U.S. were evaluated and mapped according to the manual. Three parameter data sheets (Appendix A) were filled out at seven (7) locations as indicated on the Wetland Delineation Map. Features were mapped using a Trimble GeoXT 6000 GPS (submeter).

Information on soils of the study area was obtained from the U.S. Department of Agriculture – National Resource Conservation Service's online Web Soil Survey (NRCS 2019). In the field, a Munsell Color chart was used to determine moist soil colors. Appendix B is a list of plants observed during the delineation, along with the scientific name and wetland status of each species. Where a plant species observed has a wetland indicator status (not UPL), plant nomenclature follows Lichvar et.al. (2016). Otherwise, species names are aligned with the *The Jepson Manual* (Baldwin et.al. 2012).

Field data collected with the GPS were differentially corrected and were used to create a Wetland Delineation Map using Arc GIS software. The Corps of Engineers Aquatic Resources spreadsheet is included in Appendix C.

FINDINGS

Climate

The study area has a Mediterranean climate with cool, wet winters and hot, dry summers. The average high temperature is 71°, with the hottest months being July and August, averaging 93° and 91°, respectively. The low temperatures for these months averages 40° each month. The coolest months are December and January, averaging a high of 52-54° each month and a low temperature of 30-34° each month. Annual precipitation averages 26 inches, nearly all of which occurs as rainfall between October and April. The wettest months are December, January, and February, each averaging more than 5 inches of rainfall (Weatherbase 2019).

Soils

One soil unit has been mapped within the study area (Figure 3) – Manzanita loam 5 to 15 percent slopes (NRCS 2019):

Manzanita loam, 5 to 15 percent slopes (160)

The Manzanita component makes up 85 percent of the map unit. Slopes are 5 to 15 percent. This component is on river valleys, terraces. The parent material consists of alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low.

Salix consulting, inc.

Figure 3

SOIL COMPONENTS

Lakeport Shopping Center

Lakeport, Lake County, CA

Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R014XD085CA Clayey Terrace (blue Oak/annual Grass) ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria.

Hydrology

The site occurs in the Manning Creek-Frontal Clear Lake HUC12 (180201160306) part of the greater Upper Cache HUC8 watershed (18020116). Surface water trends toward a wetland swale which transects the site in a south-easterly direction before exiting to a drainage in the southeastern corner of the site. From the site, water flows south in the drainage for approximately 270 feet, where it enters a culvert and flows east underneath highway 29. From there, water continues east for approximately half a mile before draining into Clear Lake.

Vegetation

The site is mostly a ruderal grassland. Nearly all of the site was formerly an orchard; the trees had recently pulled out and left in place. A second habitat type, blackberry scrub, is present along the northern property line and Parallel Drive.

Ruderal

The ruderal grassland contains mostly weedy species including common madia (*Madia elegans*), Italian thistle (*Carduus pycnocephalus),* medusahead (*Elymus caput-medusae*), Italian ryegrass (*Festuca perennis*), wild oat (*Avena fatua*), ripgut grass (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), sharppoint fluvellin (*Kickxia elatine),* English plantain (*Plantago lanceolata*), turkey mullein (*Croton setiger*), curly dock (*Rumex crispus*), pricky lettuce (*Lactuca serriola*), and yellow starthistle (*Centaurea solstitialis*).

The site contains a small amount of woody vegetation, primarily concentrated in one small area along the northern boundary. Trees in this area include Blue Oak, Valley Oak and Arroyo willow. A small amount of Arroyo willow also occurs along the southeastern boundary. A small amount of northern California black walnut was observed sprouting in the study area and is likely a remnant from grafts used for orchard trees that previously occupied the property.

Blackberry Scrub

The site contains a small area of woody vegetation in one cluster along the northern boundary. Himalayan blackberry (*Rubus armeniacus*) forms a dense shrub layer, and some trees are present including a few blue oak (*Quercus douglasii*) and valley oak (*Q. lobata*), along with a large arroyo willow (*Salix lasiolepis*). A few arroyo willow also occur along the southeastern boundary. Northern California black walnut occurs in the study area but in the form of stump sprouts from remnant orchard trees.

Waters of the United States

One category of potential waters of the United States have been mapped on the study area, wetland swale. Table 1 provides an acreage summary of waters of the United States on the site. Figures 4a through 4c show representative site photographs; Figure 5 is the wetland delineation map.

Table 1.
Waters of the United States

Type	Acreage
Wetland Type:	
Wetland Swale	±0.33

Wetland Swale

A wetland swale flows from northwest to southeast across the eastern portion of the study area. The swale originates near Todd Road and carries low velocity wet season water through the property. It is quite compromised from historic land uses (embedded in an orchard), although it does not show signs of recent disturbance. The swale supports both wetland and upland species. The two primary species in the swale are Italian ryegrass (a facultative species) and common madia (an upland species). One facultative wetland species that consistently occurs along the swale is dense-flower spike-primrose (*Epilobium densiflorum).* Also found in patchy distribution is and obligate wetland species, pennyroyal (*Mentha pulgium*). Fuller's teasel (*Dipsacus fullonum*) (facultative) is abundant in patchy areas as well.

Looking northwest over site. *Photo date: 9-09-19.*

Looking southeast over eastern area of site and wetland swale.
Photo date: 9-09-19.

Salix consulting, inc.

Figure 4a

SITE PHOTOS

Lakeport Shopping Center

Lakeport, Lake County, CA

Looking east over study area and wetland swale.
Photo date: 9-09-19.

Looking southwest at northwestern road berm. Small culvert drains onto site (near arrow.) *Photo date: 9-09-19.*

Salix consulting, inc.

Figure 4b

SITE PHOTOS

Lakeport Shopping Center

Lakeport, Lake County, CA

Looking west along southern property line over wetland area. *Photo date: 9-09-19.*

Looking southeast over area supporting Himalayan blackberry, arroyo willow and valley oak. Area is not a wetland. *Photo date: 9-09-19.*

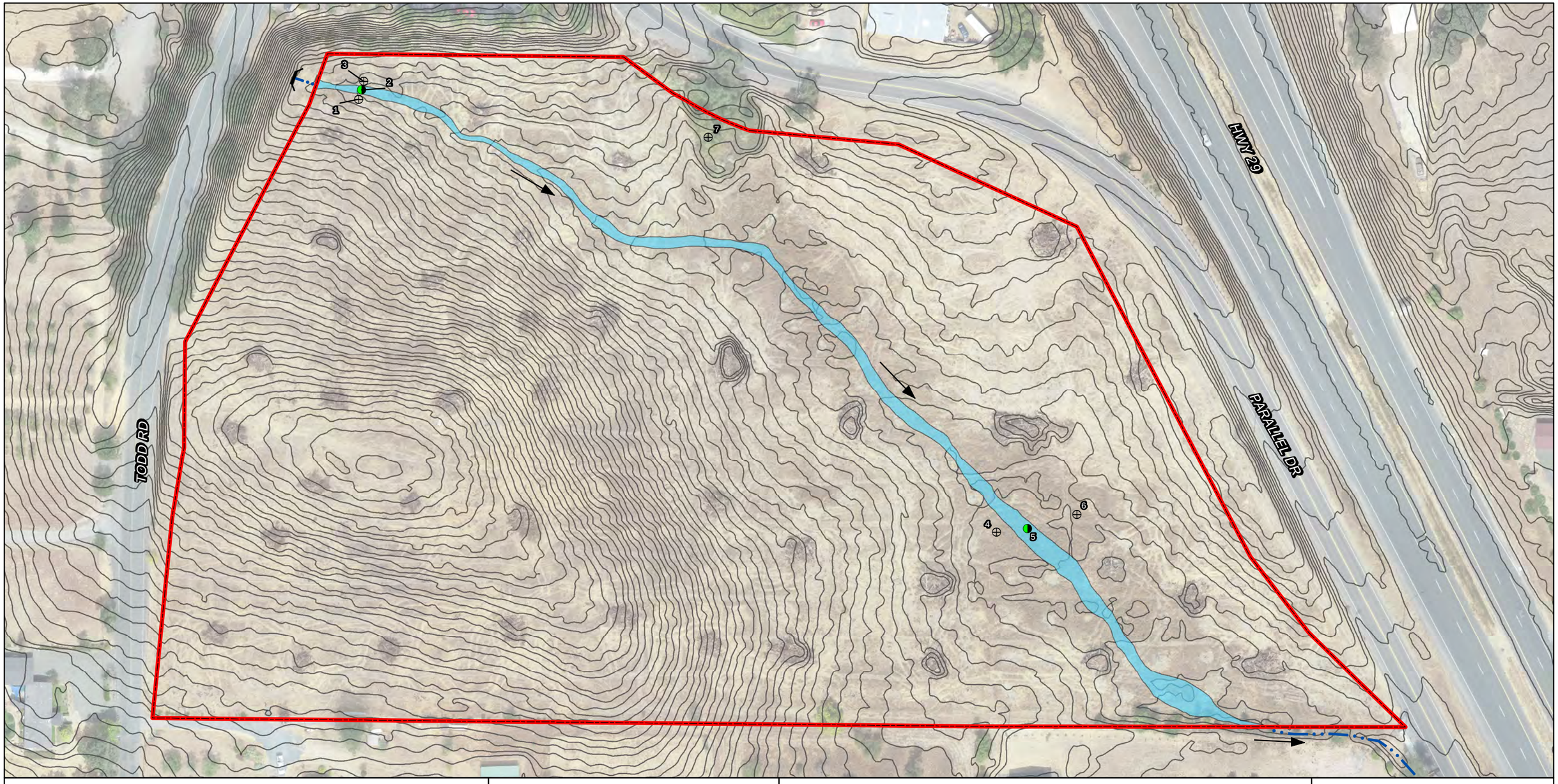
Salix consulting, inc.

Figure 4c

SITE PHOTOS

Lakeport Shopping Center

Lakeport, Lake County, CA



Prepared By:

Salix consulting, inc.

Prepared For:

AGC Design Concept, Inc.
28524 Constellation Road
Valencia, CA 91355

DELINEATED BY: J. Glazner & J. Soch September 2019
DRAWN BY: H. Gallant & J. Soch

COORDINATE SYSTEM: NAD83 CA State Plane II (U.S FT)
IMAGERY: 9-9-19 Salix Consulting, Inc.

- Project Parcel (±14.90 acres)
- ⊕ Upland Data Point
- Wetland Data Point
- 1-Ft Contours*

Waters of the U.S.

Wetlands	Acreage
Wetland Swale	
WS-1	0.33
Total	**0.33**

Figure 5

WETLAND DELINEATION

Lakeport Shopping Center

Lakeport, Lake County, CA

October 11, 2019

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Appendix A.
Wetland Data Sheets

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Lakeport Shopping Center City/County: Lakeport/Lake Sampling Date: 09/09/19

Applicant/Owner: Alex Cuevas State: CA Sampling Point: 01

Investigator(s): Jeff Glazner Section, Township, Range: Section 25, Township 14 North, Range 10 West

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 3

Subregion (LRR): LRRC Lat: 39.03104966 Long: -122.92558714 Datum: NAD83

Soil Map Unit Name: 160 - Manzanita Loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:

Just above swale bottom. Comparison to data point 02 in bottom of swale.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Madia elegans	25	x	UPL
2. Unknown grass	12		FAC
3. Festuca perennis	15		FAC
4. Bromus hordeaceus	15		FACU
5. Bromus diandrus	15		UPL
6. Elymus caput-medusae	15		UPL
7.			
8.			
	97 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	27	x 3 =	81
FACU species	15	x 4 =	60
UPL species	55	x 5 =	275
Column Totals:	97 (A)		416 (B)

Prevalence Index = B/A = 4.29

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

Grassy, slope with high percentage of tarweed

SOIL

Sampling Point: 01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-12	5YR 4/2	95	5YR 4/6	5	C	M	Silty Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

Soils lack structure in upper 12". Redox appears to be relict.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Slope above swale.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Lakeport Shopping Center City/County: Lakeport/Lake Sampling Date: 09/09/19

Applicant/Owner: Alex Cuevas State: CA Sampling Point: 02

Investigator(s): Jeff Glazner Section, Township, Range: Section 25, Township 14 North, Range 10 West

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 1-2

Subregion (LRR): LRRC Lat: 39.03107637 Long: -122.92557668 Datum: NAD83

Soil Map Unit Name: 160 - Manzanita Loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ✓ No ✓
Hydric Soil Present?	Yes ✓	No ____	
Wetland Hydrology Present?	Yes ✓	No ____	

Remarks:

Data point in swale bottom. Much of annual vegetation unidentifiable but presumed hydric. Wetland decision based on redoximorphic features in soil and presumed prolonged saturation in swale bottom.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Festuca perennis	50	x	FAC
2. Madia elegans	20	x	UPL
3. Rumex crispus	10		FAC
4. Bromus diandrus	10		UPL
5. Bromus hordeaceus	10		FACU
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 1 % Cover of Biotic Crust 20

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	60	x 3 =	180
FACU species	10	x 4 =	40
UPL species	30	x 5 =	150
Column Totals:	100 (A)		370 (B)

Prevalence Index = B/A = 3.7

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

Primarily Festuca perennis swale.

SOIL

Sampling Point: 02

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-12	7.5YR 4/2	80	5YR 4/6	20	C	M	Silty Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ✓ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

Prominent redox, but hydric soil indicators not clearly met. Swale bottom shows evidence of prolonged saturation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ✓ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ✓ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): _____

Water Table Present? Yes ___ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Data point in flow-line of swale, evidence of prolonged saturation.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Lakeport Shopping Center City/County: Lakeport/Lake Sampling Date: 09/09/19

Applicant/Owner: Alex Cuevas State: CA Sampling Point: 03

Investigator(s): Jeff Glazner Section, Township, Range: Section 25, Township 14 North, Range 10 West

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 1-2

Subregion (LRR): LRRC Lat: 39.03109974 Long: -122.92556881 Datum:

Soil Map Unit Name: 160 - Manzanita Loam NWI classification: NAD83

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:

Data point just upslope of swale bottom in upland landscape position.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Festuca perennis	15		FAC
2. Madia elegans	25	x	UPL
3. Unknown grass	12		FAC
4. Bromus hordeaceus	15		FACU
5. Bromus diandrus	15		UPL
6. Elymus caput-medusae	15		UPL
7.			
8.			
	97 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 1 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species ____	x 1 =	____
FACW species ____	x 2 =	____
FAC species 27	x 3 =	81
FACU species 15	x 4 =	60
UPL species 55	x 5 =	275
Column Totals: 97 (A)		416 (B)

Prevalence Index = B/A = 4.2

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

Weedy.

SOIL

Sampling Point: 03

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-2	7.5 YR 4/3	90	7.5 YR 5/8	10	C	M	Silty Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

Redox does not represent annual hydrological regime and appears to be relict.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

On slope above swale. Upland comparison to data point 02.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Lakeport Shopping Center City/County: Lakeport/Lake Sampling Date: 09/09/19

Applicant/Owner: Alex Cuevas State: CA Sampling Point: 04

Investigator(s): Jeff Glazner Section, Township, Range: Section 25, Township 14 North, Range 10 West

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 2

Subregion (LRR): LRRC Lat: 39.02984019 Long: -122.92325183 Datum: NAD83

Soil Map Unit Name: 160 - Manzanita Loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:

In broad lower end of swale adjacent to flowline. Upland comparison to data point 05.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Madia elegans	25	x	UPL
2. Vicia villosa	20	x	UPL
3. Kickxia elatine	10		UPL
4. Bromus hordeaceus	10		FACU
5. Epilobium brachycarpum	5		UPL
6. Festuca Perrenis	10		FAC
7. Elymus caput-medusae	10		UPL
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 4 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	10	x 4 =	40
UPL species	70	x 5 =	350
Column Totals:	90 (A)		420 (B)

Prevalence Index = B/A = 4.67

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

Weedy.

SOIL

Sampling Point: 04

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-12	7.5YR 4/3	100%					Silty Loam	Higher silt content than upswale.

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

Soils lack redox.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Location just lateral to swale bottom; lacks evidence of prolonged saturation.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Lakeport Shopping Center City/County: Lakeport/Lake Sampling Date: 09/09/19

Applicant/Owner: Alex Cuevas State: CA Sampling Point: 05

Investigator(s): Jeff Glazner Section, Township, Range: Section 25, Township 14 North, Range 10 West

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 1

Subregion (LRR): LRRC Lat. 39.02985139 Long: -122.92314026 Datum: NAD83

Soil Map Unit Name: 160 - Manzanita Loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Swale bottom at lower end of study area. Wetland hydrology presumed based on land-form and high amount of Epilobium densiflorum. Many annual plant species not identifiable at this time.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Madia elegans	25	x	UPL
2. Epilobium densiflorum	15		FACW
3. Dipsacus fullonum	15		FAC
4. Festuca perennis	20	x	FAC
5. Kickxia elatine	10		UPL
6. Bromus hordeaceus	5		FACU
7. Rumex crispus	5		FAC
8.			
	95 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	40	x 3 =	120
FACU species	5	x 4 =	20
UPL species	35	x 5 =	175
Column Totals:	95 (A)		345 (B)

Prevalence Index = B/A = 3.63

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

Epilobium densiflorum common along flow-line.

SOIL

Sampling Point: 05

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-12	10YR 5/3	90	5YR 3/4	10	C	M	Silty Loam	Higher silt content.

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ✓ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

Weak evidence of hydric soils. Presumed wetland occurs along the thalweg but non wetland and even weaker redox laterally.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ✓ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): _____

Water Table Present? Yes ___ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Lowest landscape position, shows evidence of prolonged saturation.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Lakeport Shopping Center City/County: Lakeport/Lake Sampling Date: 09/09/19

Applicant/Owner: Alex Cuevas State: CA Sampling Point: 06

Investigator(s): Jeff Glazner Section, Township, Range: Section 25, Township 14 North, Range 10 West

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 2

Subregion (LRR): LRRC Lat: 39.02989349 Long: -122.92296072 Datum: NAD83

Soil Map Unit Name: 160 - Manzanita Loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:

In broad lower end of swale adjacent to flowline. Upland comparison to point 05.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Madia elegans	40	x	UPL
2. Elymus caput-medusae	20	x	UPL
3. Cynosurus echinatus	5		UPL
4. Festuca perennis	20	x	FAC
5. Rumex crispus	10		FAC
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 2 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	60	x 5 =	300
Column Totals:	90 (A)		390 (B)

Prevalence Index = B/A = 4.3

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

Weedy.

SOIL

Sampling Point: 06

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-12	7.5YR 4/3	95	7.5YR 4/6	5	C	M	Silty Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Lacks evidence of prolonged saturation.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Lakeport Shopping Center City/County: Lakeport/Lake Sampling Date: 09/09/19

Applicant/Owner: Alex Cuevas State: CA Sampling Point: 07

Investigator(s): Jeff Glazner Section, Township, Range: Section 25, Township 14 North, Range 10 West

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 4

Subregion (LRR): LRRC Lat: 39.03095258 Long: -122.92431494 Datum: NAD83

Soil Map Unit Name: 160 - Manzanita Loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____ No ✓	
Wetland Hydrology Present?	Yes ____ No ✓	

Remarks:

Suspect area of woody hydrophytes. Area lacks evidence of prolonged saturation. Soils course and well-drained.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus lobata	5		FACU
2.			
3.			
4.			
	5 = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. Rubus armeniacus	80	x	FAC
2. Salix lasiolepis	60	x	FACW
3.			
4.			
5.			
	140 = Total Cover		
Herb Stratum (Plot size: ____)			
1. Baccharis pilularis	5		UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	5 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 1 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks:

Area dominated by woody species. Rubus covers nearly entire area.

SOIL

Sampling Point: 07

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-12	7.5YR 4/3	100					Course lo	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

Unconsolidated course soil, maybe fill. Lacks native soil profile. No evidence of redox.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Well-drained soil, lacks evidence of prolonged saturation.

Appendix B.
Plant Species Observed

Appendix B - Lakeport Shopping Center Plants Observed w-Wetland Status

Taxon	Common Name	Wetland Status
Acmispon americanus	Spanish lotus	UPL
Amaranthus blitoides	Mat amaranth	FACU
Avena fatua	Wild oat	UPL
Baccharis pilularis	Coyote brush	UPL
Briza maxima	Rattlesnake grass	FAC
Bromus diandrus	Ripgut grass	UPL
Bromus hordeaceus	Soft chess	FACU
Calycadenia pauciflora	Calycadenia	UPL
Carduus pycnocephalus	Italian thistle	UPL
Centaurea solstitialis	Yellow starthistle	UPL
Chenopodium album	White pigweed	FACU
Convolvulus arvensis	Bindweed	UPL
Cortaderia jubata	Urguayan pampas grass	FACU
Croton setiger	Turkey mullein	UPL
Cynosurus echinatus	Hedgehog dogtail	UPL
Cyperus eragrostis	Tall flatsedge	FACW
Dactylis glomerata	Orchard grass	FACU
Daucus carota	Queen Anne's lace	UPL
Dipsacus fullonum	Fuller's teasel	FAC
Elymus caput-medusae	Medusahead	UPL
Elymus glaucus	Blue wildrye	FACU
Epilobium brachycarpum	Summer cottonweed	UPL
Epilobium densiflorum	Dense-flower spike-primrose	FACW
Euthamia occidentalis	Western goldenrod	FACW
Festuca perennis	Italian ryegrass	FAC
Genista monspessulana	French broom	UPL
Hordeum jubatum	Foxtail barley	FAC
Hordeum marinum subsp. gussoneanum	Mediterranean barley	FAC
Hypericum perforatum subsp. perforatum	Klamathweed	FACU
Juglans hindsii	Northern California black walnut	FAC
Kickxia elatine	Sharppoint fluvellin	UPL
Lactuca serriola	Prickly lettuce	FACU
Leontodon saxatilis	Long-beaked hawkbit	FACU
Madia elegans	Common madia	UPL
Mentha pulegium	Pennyroyal	OBL
Nicotiana acuminata var. multiflora	Manyflower tobacco	UPL
Phalaris aquatica	Harding grass	FACU
Plantago lanceolata	English plantain	FAC

Taxon	Common Name	Wetland Status
Polypogon monspeliensis	Annual beard grass	FACW
Quercus douglasii	Blue oak	UPL
Quercus lobata	Valley oak	FACU
Raphanus sativus	Wild radish	UPL
Rubus armeniacus	Himalayan blackberry	FAC
Rumex crispus	Curly dock	FAC
Salix lasiolepis	Arroyo willow	FACW
Torilis arvensis	Field hedgeparsley	UPL
Trifolium hirtum	Rose clover	UPL
Triticum aestivum	Wheat	UPL
Vicia villosa	Winter vetch	UPL
Vitis californica	California wild grape	FACU

Appendix C.
USACOE Aquatic Resources Spreadsheet

UACOE Aquatic Resources Spreadsheet -- Lakeport Shopping Center

Waters_Name	State	Cowardin_Code	HGM_Code	Meas_Type	Amount	Units	Waters_Type	Latitude	Longitude	Local_Waterway
WS-1	CALIFORNIA	PEM2	SLOPE	Area	0.33	ACRE	DELINEATE	39.03014599	-122.9236767	Clear Lake

APPENDIX D

Cultural Resources Correspondence

DETERMINATION OF ELIGIBILITY AND EFFECT FOR THE LAKEPORT HUB PROJECT, CITY OF LAKEPORT, LAKE COUNTY, CALIFORNIA

Prepared by

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El Dorado Hills, CA 95762
(916) 939-2405

Prepared for

New Vista Developers, LLC
3774 Jamestown Road
Fremont, California 94538
(408) 533-5393

November 13, 2019
(Job #19-082)

INTRODUCTION

The proposed Lakeport HUB Project is located on a 15.5-acre site designated as C-2 Major Retail per the City's Zoning Map designations. This property is planned to house a variety of tenants including retail, commercial, gas station, restaurants, and a hotel. The proposed improvements include a total of 10 buildings on 8 separate parcels (Figures 1 and 2).

The project area is bounded on the west by Todd Road and on the north and east by Parallel Drive. The project area is located in the southwest quarter of section 25, Township 14 north, Range 10 west, mapped on the Lakeport United States Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 3).

The proposed project has the potential to affect the entire 15.5-acre parcel outside of the area of delineated wetlands, so the horizontal APE should be considered to be the boundaries of the parcel as shown on Figure 2. The maximum depth of excavation could be to a depth of approximately 55 feet.

Melinda A. Peak, senior historian/archeologist with Peak & Associates, Inc. served as principal investigator for the study, with Neal Neuenschwander, senior archeologist, completing the field survey (resumes, Appendix 1).

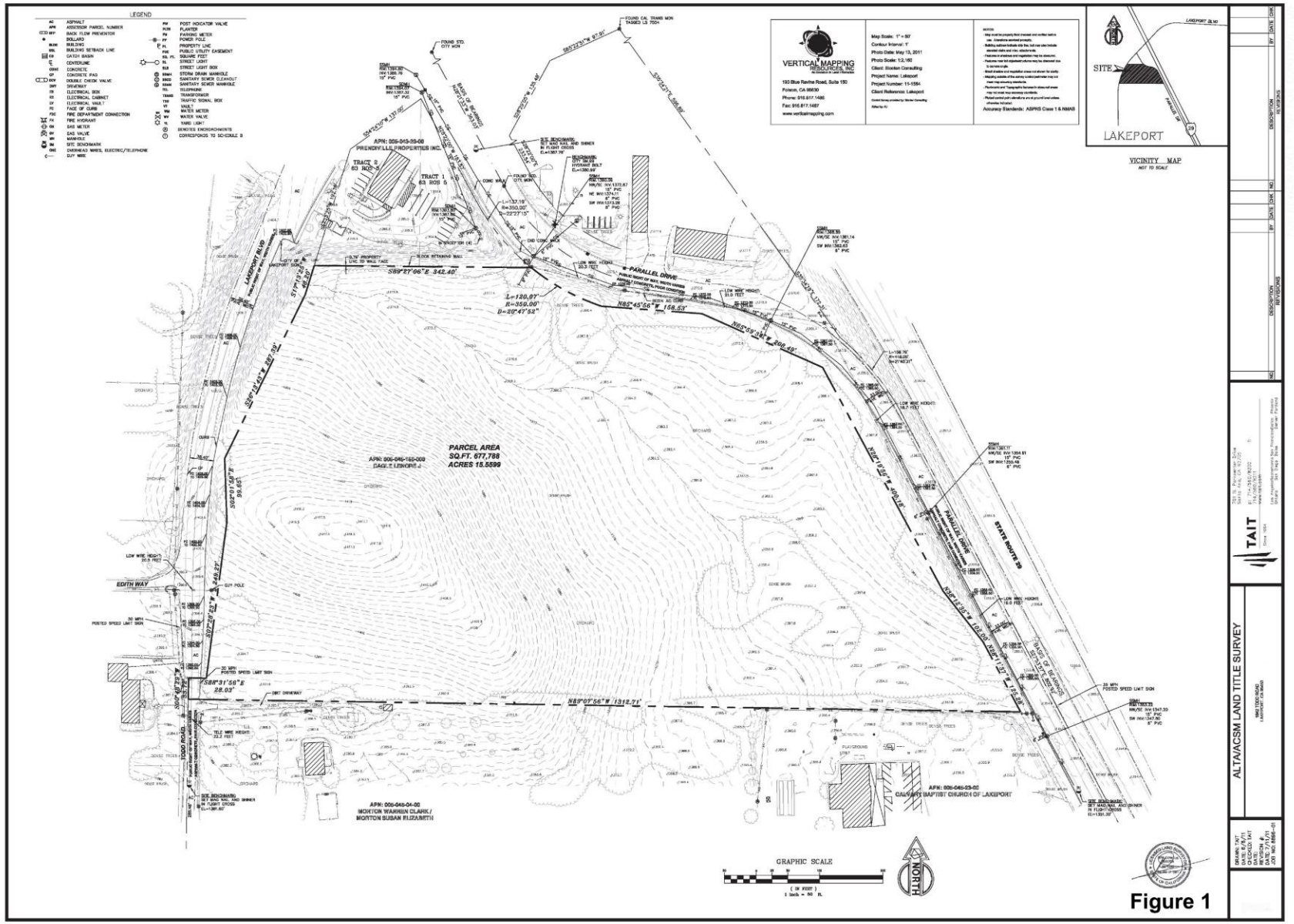
REGULATORY CONTEXT

The Section 106 review process is implemented using a five step procedure: 1) identification and evaluation of historic properties; 2) assessment of the effects of the undertaking on properties that are eligible for the National Register; 3) consultation with the State Historic Preservation Office (SHPO) and other agencies for the development of a memorandum of agreement (MOA) that addresses the treatment of historic properties; 4) receipt of Advisory Council on Historic Preservation comments on the MOA or results of consultation; and 5) the project implementation according to the conditions of the MOA.

The Section 106 compliance process may not consist of all the steps above, depending on the situation. For example, if identification and evaluation result in the documented conclusion that no properties included in or eligible for inclusion are present, the process ends with the identification and evaluation step.

FRAMEWORK FOR EVALUATION

Decisions regarding management of cultural resources hinge on determinations of their significance (36 CFR 60.2). As part of this decision-making process the National Park Service has identified components which must be considered in the evaluation process, including:


LEGEND
VERTICAL MAPPING RESOURCES, INC.
193 Blue Ravine Road, Suite 150
Folsom, CA 95630
Phone: 916.817.1486
Fax: 916.817.1487
www.verticalmapping.com
Map Scale: 1" = 50'
Contour Interval: 1'
Photo Date: May 13, 2011
Photo Scale: 1:2,160
Client: Stocken Consulting
Project Name: Lakeport
Project Number: 11-1594
Client Reference: Lakeport
Accuracy Standards: ASPRS Class 1 & NMAS
VICINITY MAP
NOT TO SCALE
LAKEPORT BLVD
SITE
LAKEPORT
APN: 005-043-35-00
PRIENDLY LLC PROPERTIES INC.
TRACT 2
63 MOS 5
TRACT 1
63 MOS 5
PARCEL AREA
SQ.FT. 677,788
ACRES 15.5599
APN: 005-045-160-000
EAGLE LENDING
PARALLEL DRIVE
STATE ROUTE 29
EDITH WAY
DIRT DRIVEWAY
APN: 005-045-04-00
MORTON WARREN CLARK /
MORTON SUSAN ELIZABETH
APN: 005-045-23-00
CALVARY BAPTIST CHURCH OF LAKEPORT
S89°27'06"E 342.40'
N89°07'56"W 1312.71'
L=120.07'
R=350.00'
D=20°47'52"
GRAPHIC SCALE
(IN FEET)
1 Inch = 50 Ft.
NORTH
Figure 1
TAIT
ALTA/ACSM LAND TITLE SURVEY

Other Waters					
Segment	Possible Water of U.S.?	Width (feet)	Length (feet)	Area (ft^2)	Area (acres)
A	Yes	21.0	1,409	29,577	**0.679**

Project Name:	Elliott Property – APN 005-045-150
Project Contact:	Lenore J. Cagle P.O. Box 6234 Auburn, CA 95604

Figure 2

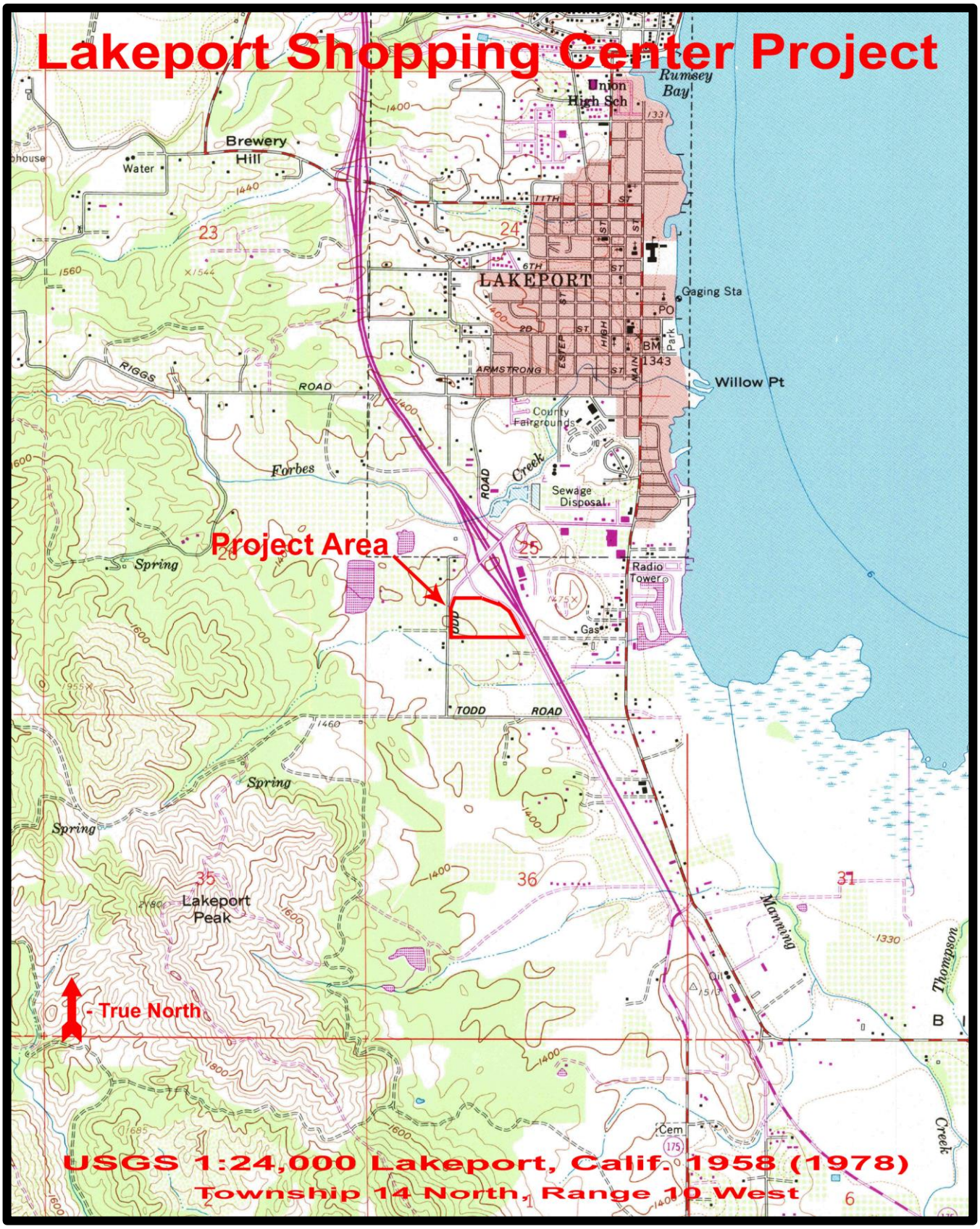

Lakeport Shopping Center Project
Project Area
- True North
USGS 1:24,000 Lakeport, Calif. 1958 (1978)
Township 14 North, Range 10 West
LAKEPORT
Brewery Hill
Water
Union High Sch
Rumsey Bay
Willow Pt
Gaging Sta
PO
BM 1343
County Fairgrounds
Sewage Disposal
Radio Tower
Gas
Forbes
Creek
Spring
Lakeport Peak
Manning
Thompson
Cem
RIGGS ROAD
TODD ROAD
11TH ST
6TH ST
20 ST
HIGH ST
ESTEP
MAIN ST
ARMSTRONG
23
24
25
26
35
36
37
1
2
6

Figure 3

- o criteria for significance;
- o historic context; and
- o integrity.

Criteria for Significance

Significance of cultural resources is measured against the National Register criteria for evaluation:

> The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and,
>
> (a) that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> (b) that are associated with the lives of persons significant in our past; or
>
> (c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> (d) that have yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

Historic Context

The historic context is a narrative statement "that groups information about a series of historic properties based on a shared theme, specific time period, and geographical area." To evaluate resources in accordance with federal guidelines, these sites must be examined to determine whether they are examples of a defined "property type." The property type is a "grouping of individual properties based on shared physical or associative characteristics." Through this evaluation, each site is viewed as a representative of a class of similar properties rather than as a unique phenomenon.

A well-developed historical context helps determine the association between property types and broad patterns of American history. Once this linkage is established, each resource's potential to address specific research issues can be explicated.

Integrity

For a property to be eligible for listing in the National Register it must meet one of the criteria for significance (36 CFR 60.4 [a, b, c, or d]) and retain integrity. Integrity is defined as "the authenticity

of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's historic or prehistoric period."

The following discussion is derived from National Register Bulletin 15 ("How to Apply the National Register Criteria for Evaluation").

Within the concept of integrity, there are seven aspects or qualities that define integrity in various combinations. The seven aspects are: location, design, setting, materials, workmanship, feeling, and association. To retain historic integrity, a property will possess several or usually most of these aspects. The retention of specific aspects is necessary for a property to convey this significance. Determining which of the seven aspects are important involves knowing why, where and when the property is significant.

The prescribed steps in assessing integrity are as follows:

- define the essential physical features that must be present for a property to represent its significance;
- determine whether the essential physical features are visible enough to convey their significance;
- determine whether the property needs to be compared with similar properties; and,
- determine, based on the significance and essential physical features, which aspects of integrity are particularly vital to the property being nominated and if they are present.

Ultimately, the question of integrity is answered by whether or not the property retains the identity for which it is significant.

All properties change over time. It is not necessary for a property to retain all its historic physical features or characteristics. However, the property must retain the essential physical features that enable it to convey its historic identity. The essential physical features are those features that define why a property is significant.

A property's historic significance depends on certain aspects of integrity. Determining which of the aspects is most important to a particular property requires an understanding of the property's significance and its essential physical features. For example, a property's historic significance can be related to its association with an important event, historical pattern or person. A property that is significant for its historic association is eligible for listing if it retains the essential physical features that made up its character or appearance during the period of its association with the important event, historical pattern, or person.

A property important for association with an event, historical pattern, or person ideally might retain some features of all seven aspects of integrity. Integrity of design and workmanship, however, might not be as important to the significance, and would not be relevant if the property were an archeological site. A basic integrity test for a property associated with an important event or person is whether a

historical contemporary would recognize the property as it exists today. For archeological sites that are eligible under criteria A and B, the seven aspects of integrity can be applied in much the same way as they are to buildings, structures, or objects.

In sum, the assessment of a resource's National Register eligibility hinges on meeting two conditions:

- the site must possess the potential to be eligible for listing in the National Register under one of the evaluation criteria either individually or as a contributing element of a district based on the historic context that is established; and

- the site must possess sufficient integrity, i.e. it must retain the qualities that make it eligible for the National Register.

For the National Register, "a district possesses a significant concentration, linkage, or continuity of ... objects united historically or aesthetically by plan or physical development." The identity of a district derives from the relationship of its resources, which can be an arrangement of functionally related properties.

California Register of Historical Resources

For the purposes of CEQA, an historical resource is a resource listed in, or determined eligible for listing in the California Register of Historical Resources (CRHR).

When a project will impact a site, it needs to be determined whether the site is an historical resource, which is defined as any site which:

(A.) Is historically or archeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political or cultural annals of California; and

(B) Meets any of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2. Is associated with the lives of persons important in our past;

3. 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

4. Has yielded, or may be likely to yield, information important in prehistory or history.

CULTURAL HISTORY

Ethnography

Seven distinct and mutually unintelligible language divisions existed within this Pomoan language family, some more divergent than German and English (McLendon and Oswalt 1978:274). The seven groups identified by linguists are: Southeastern, Eastern, Northeastern, Northern, Central, Southern, and Kashaya Pomo.

Eastern Pomo

The Eastern Pomo controlled the territory that encompassed most of the northwestern portion of Clear Lake, extending north to Horse Mountain and south to Cobb Mountain (McLendon and Oswalt 1978:286). The proposed Martin Street Senior Apartment project is located within the western territory of the Eastern Pomo and eastern territory of the Northern Pomo to the west. The project area was considered as an Eastern and Northern Pomo amalgamation area. The Eastern Pomo village of *xabenapo*, apparently located along Kelsey Creek somewhere near Kelseyville, was the major village center for the area (McLendon and Oswalt 1978:278).

The Eastern Pomo made their permanent villages back from the shoreline of Clear Lake along streams feeding the lake. These springs were the spawning area for several varieties of fish making the camp locations ideal for spring fish harvesting. The permanent village served as a base from which small groups could travel to establish temporary camps on the lake shore and in the hills on an annual cycle. This annual cycle was well adapted to the specific environment of the Eastern Pomo (McLendon and Lowy 1978:308-310).

There was one principal settlement that housed a chief recognized by all group members. Other subsidiary villages were linked by political ties to the main community. All members of a group were at liberty to hunt, fish, and gather wild foods. Territorial boundaries were definite and property rights were established. In times of resource abundance, these rights could be, and were relaxed, allowing mutually acceptable freedom of land use. In general, Indians of the region were peaceful and relationships were amicable among the diverse peoples. Feuds and wars are known from stories and legends, but these battles do not appear to be of major consequence (Kroeber 1925:228-229).

Basketry among the Pomo became an art form that was unsurpassed by other Native American peoples. However, other art forms did not reach this excellence. The Pomo were the principal distributors of shell bead money to other Indian groups in central California. The raw shells were obtained from the coast, especially from the Coast Miwok. The shells were broken, shaped, and the edges ground to a circular configuration. The value was computed by the size, thickness, and quality of the finish. Trade was an stablished part of the economic system, with the Pomo receiving shell, bows, and some sea mammal furs and distributing obsidian, magnesite, and fish (Kroeber 1925:257).

Northern Pomo

The Northern Pomo territory ran from the Pacific coast inland to the western shores of Clear Lake. This included Bachelor Valley, although Bachelor Valley appeared to have a number of Eastern Pomo present as well (McLendon and Oswalt 1978:283-285). Bachelor Valley, located a few miles west and north of the project area was under the control of the *kayaw* village/tribelet.

There was no native name for the speakers of Northern Pomo as a whole. The usual designation of a community was by adding *poma* (or a dialectic equivalent) to the name of the principal site inhabited by the community (McLendon and Oswalt 1978:283).

Political organization was small in scale but formalized. The main political entity was the tribelet, consisting of the population of a major village and outlying hamlets and camp sites. The various kin groups within the tribelet each has a head man or kin-group chief and these chiefs operated as a council with one of their number elected tribal chief. There were usually lower categories of chieftainship recognized for lesser activities, such as distribution of food at feasts (Bean and Theodoratus 1978:295).

History

The first impact to the native peoples in the Clear Lake region and environs by Europeans centered on the development of the Sonoma Mission in 1823. By 1832, the population of native people at the mission had reached nearly 1,000, some of whom probably came from Pomoan territory. With the secularization of the missions in 1834, General Mariano Vallejo managed to gain control of the former mission lands and neophytes who he put to work on his newly expanded 66,622-acre Petaluma Rancho.

Relations between the Pomos and new Mexican administration deteriorated to a point where sometime during the period between 1841 and 1843 a detachment of Mexican soldiers was sent to Clear Lake to either punish the native people for cattle theft or to compel them to enter into servitude (depending on the source) leading to the first recorded massacre.

Control of the community of Sonoma and surrounding territory transferred to members of the American-led Bear Flag Republic on June 14, 1846. This had little direct impact to native peoples in the Clear Lake region but did accelerate Anglo-American settlement of the area. In the Clear Lake area these new settlers were brothers Andrew and Ben Kelsey, Charles Stone, and Mr. Shirland who purchased Vallejo's cattle and pastureland near Clear Lake. A two-room adobe house was constructed near Kelseyville, which was laid to siege by local the Pomo in 1848 in response to generally bad treatment of the native people by the adobe residents. A contingent of settlers from Sonoma came to their aid, and rescued Kelsey and Stone from their adobe house. Soon after this event, continued harassment of the natives, particularly the forced removal of approximately 50 Pomoan people to work as miners along the Sacramento River, caused relations to deteriorate even further (Mauldin 1960). By 1849, Kelsey and Stone lay dead at the hands of their new neighbors.

In retribution for the killing of Kelsey and Stone, an expedition led by Captain Nathaniel Lyons was organized in Benicia, accompanied by whale boats and two howitzers, as an earlier group had discovered the natives residing on islands on Clear Lake. By the time Lyon arrived in May 1850, the only native people they could find were residing on an island south of the present community of Upper Lake. The resulting carnage has been recorded in history as the Bloody Island Massacre. After decimating the residents of now named Bloody Island, Captain Lyons led his contingent onto Potter and Ukiah valleys, and then down the Russian River back to Benicia (Carpenter and Millberry 1914:129).

Within a year of the Bloody Island Massacre, an Indian Reservation was proposed for a portion of the Big Valley. A treaty was entered into with eight village leaders that gave them Big Valley. Unfortunately, no official action was ever taken to formally establish this reservation. Many Pomo were relocated to the 25,000+ acre Mendocino Reservation after 1856, but by the time this reservation was disbanded in 1867, many of the Pomo had returned to their native territory. Smaller reservations were eventually established in the area, including the Hopland Indian Reservation.

The tragic tale of Kelsey and Stone illustrates the importance of the raising of livestock placed on this region by the European settlers. With a mosaic of valley, foothill, and mountain grasslands available, the same pattern of transhumance practiced by the native peoples was essentially replicated by the white ranchers. Winter pastures in the lowlands, summer pasture in the highlands led to the establishment of a settlement pattern that can still be seen today.

With the arrival of additional settlers, small communities began to spring up. Kelseyville, or originally Kelsey Town, was named in honor of the fallen settler Andrew Kelsey, and grew up around the original Vallejo corral and cabin and Kelsey/Stone adobe. By 1857, the area supported a large enough population to lead to the establishment of Denham's store and blacksmith shop (Hoover, Rensch, and Rensch 1990:136).

Lakeport was originally known as Forbestown, named after William Forbes, owner of the property. When Lakeport became the county seat, the name was changed to Lakeport due to its setting on the edge of Clear Lake (Gudde 1969:170). Just south of Lakeport, at Stony Point, Dr. E.D. Boynton erected a store and opened it for business in 1856.

RESEARCH

A record search was conducted for the project area at the Northwest California Information Center of the California Historical Resources Information System on October 15, 2019 (NWIC File No.: 19-0641, Appendix 2). The project area had never been surveyed for cultural resources. There are no recorded sites within the project area. Four prehistoric period resources are located within a one-quarter mile radius of the project area but these resources were identified by an avocational archeologist whose resources are often found to be non-existent when further inspected by professionals (Lisa Hagel, NWIC Research Assistant, personal communication, 2019).

General Land Office (GLO) plats of 1868, 1876 and 1892 were reviewed with no buildings, structures or other features indicated within the project area. The 1938 edition of the USGS Lakeport 1:62,500 scale topographic map shows a black dot, most likely a residence, near the southern boundary of the project area.

ENVIRONMENTAL SETTING

The project area is located about one-half mile west of the lakeshore in a hilly area with no permanent water sources. Prehistoric period settlement in the area focused on the lakeshore environment, particularly where more permanent water sources entered the resource such as Forbes Creek approximately one quarter mile to the north. Early historic period settlement was also widely scattered as the 1868-1892 GLO plat maps indicate no settlement or features being developed on the project area during this period.

The soils within the project area are entirely Manzanita loam. Manzanita loam is alluvially-derivied, relatively deepa much deeper sediment (up to 84 inches) with the upper 19 inches being a more agricultural-friendly true loam (www.nrcs.gov).

Given the lack of permanent water and setting well away from the immediate lakeshore of Clear Lake, the possibility of encountering buried prehistoric period deposits is probably low.

NATIVE AMERICAN CONSULTATION

A letter was sent to the Native American Heritage Commission (NAHC) by Peak & Associates, Inc. requesting a check of the Sacred Lands files for the project site. A reply from that office was prepared on October 15, 2019. The NAHC letter indicated the search of the Sacred Lands File (SLF) was positive and to contact the five tribes provided on an attached list. Letters requesting information on sites of concern within the project area were sent October 15, 2019 to the following NAHC identified tribes on by Peak & Associates, Inc.: Anthony Jack, Chairperson, Big Valley Band of Pomo Indians; Shawn Davis, Chairperson, Scotts Valley Band of Pomo; Sherry Treppa, Chairperson, Habematolel Pomo of Upper Lake; Eddie J. Crandall, Chairperson, Robinson Rancheria Band of Pomo Indians; and, Scott Gabaldon, Chairperson, Mishewal-Wappo Tribe of Alexander Valley.

As of November 13, 2019, no replies have been received. All correspondence related to Native American consultation is included in Appendix 3.

FIELD ASSESSMENT/RESULTS

Neal Neuenschwander completed a field survey of the project site on October 18, 2019, with a complete, intensive, inspection of the proposed project site, with transects no wider than fifteen meters (Figure 4). Ground visibility was generally good as recent tree removal activities left large areas of exposed sediment scattered across the project area.

There was no evidence of prehistoric or historic period cultural resources present within the project area.

EFFECTS OF THE PROPOSED PROJECT

As a result of the identification and evaluation efforts, an agency official may find that there are no historic properties present or there are historic properties present but the undertaking will have no effect upon them as defined in Section 800.16 (i).

If the agency official finds there are historic properties that may be affected by the undertaking, the agency official shall apply the criteria of adverse effect. "An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association" (Section 800.5 (a)).

There are three possible findings:

- **Finding of no historic properties affected:** There is no effect of any kind on the historic properties.

- **Finding of no adverse effect:** There could be an effect, but the effect would not be harmful to the characteristics that qualify the property for inclusion in the National Register; or

- **Adverse effect:** There could be an effect, and that effect could diminish the integrity of such characteristics.

There were no historic properties recorded within the project area. With regard to Section 106 of the NHPA, it is recommended that the agency seek concurrence from the California SHPO with a finding of "no historic properties affected" per § 800.4(d) (1).

For the purposes of CEQA, we conclude that there will be no impact to important cultural resources from implementation of the project.

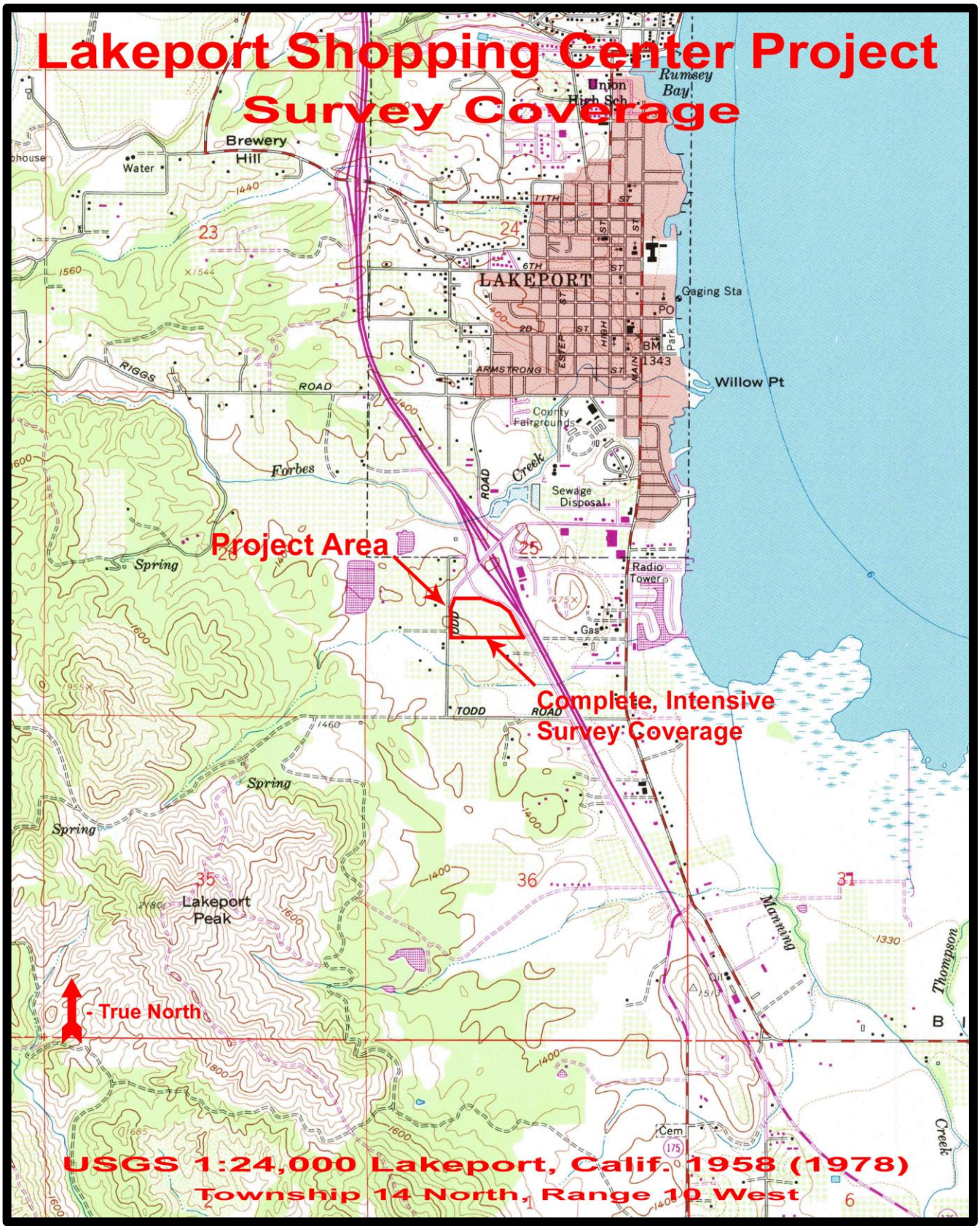

Lakeport Shopping Center Project
Survey Coverage
Project Area
Complete, Intensive
Survey Coverage
- True North
USGS 1:24,000 Lakeport, Calif. 1958 (1978)
Township 14 North, Range 10 West
LAKEPORT
Brewery
Hill
Water
Union
High Sch
Rumsey
Bay
Gaging Sta
PO
Willow Pt
County
Fairgrounds
Sewage
Disposal
Radio
Tower
Gas
Forbes
Creek
Spring
Lakeport
Peak
Manning
Thompson
Creek
RIGGS
ROAD
TODD
ROAD
ARMSTRONG
11TH
6TH
2D
HIGH
MAIN
ESTEP
Park
BM
1343
Cem

Figure 4

REFERENCES

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Carpenter, A.O., and P.H. Millberry

1914 *History of Mendocino and Lake Counties, California*. Historic Record Company, Los Angeles.

Gudde, Edwin G.

1969 *California Place Names*. University of California Press, Berkeley.

Hoover, Mildred, Hero E. Rensch, Ethel G. Rensch and William N. Abeloe

1990 *Historic Spots in California* (Fourth Edition). Stanford University Press, Stanford.

Kroeber, Alfred L.

1925 Handbook of the Indians of California. *Bureau of American Ethnology Bulletin* 78. Washington, D.C.

Mauldin, Henry K.

1960 *Your Lakes, Valleys & Mountains: History of Lake County. Volume 1, Clear Lake and Mount Konocti*. East Wind Printers, San Francisco.

McLendon, Sally, and Michael J. Lowy

1978 Eastern Pomo and Southeastern Pomo. In *California*, edited by Robert F. Heizer, pp. 306-325. Handbook of North American Indians, volume 8, William G. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

McLendon, Sally, and Robert L. Oswalt

1978 Pomo. In *California*, edited by Robert F. Heizer, pp. 275-288. Handbook of North American Indians, volume 8, William G. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

APPENDIX 1

Resumes

PEAK & ASSOCIATES, INC.
RESUME

MELINDA A. PEAK **January 2019**
Senior Historian/Archeologist
3941 Park Drive, Suite 20 #329
El Dorado Hills, CA 95762
(916) 939-2405

PROFESSIONAL EXPERIENCE

Ms. Peak has served as the principal investigator on a wide range of prehistoric and historic excavations throughout California. She has directed laboratory analyses of archeological materials, including the historic period. She has also conducted a wide variety of cultural resource assessments in California, including documentary research, field survey, Native American consultation and report preparation.

In addition, Ms. Peak has developed a second field of expertise in applied history, specializing in site-specific research for historic period resources. She is a registered professional historian and has completed a number of historical research projects for a wide variety of site types.

Through her education and experience, Ms. Peak meets the Secretary of Interior Standards for historian, architectural historian, prehistoric archeologist and historic archeologist.

EDUCATION

M.A. - History - California State University, Sacramento, 1989
Thesis: *The Bellevue Mine: A Historical Resources Management Site Study in Plumas and Sierra Counties, California*
B.A. - Anthropology - University of California, Berkeley

RECENT PROJECTS

Ms. Peak completed the cultural resource research and contributed to the text prepared for the DeSabla-Centerville PAD for the initial stage of the FERC relicensing. She also served cultural resource project manager for the FERC relicensing of the Beardsley-Donnells Project. For the South Feather Power Project and the Woodleaf-Palermo and Sly Creek Transmission Lines, her team completing the technical work for the project.

In recent months, Ms. Peak has completed several determinations of eligibility and effect documents in coordination with the Corps of Engineers for projects requiring federal permits, assessing the eligibility of a number of sites for the National Register of Historic Places. She has also completed historical research projects on a wide variety of topics for a number of projects including the development of navigation and landings on the Napa River, wineries, farmhouses dating to the 1860s, bridges, an early roadhouse, Folsom Dam and a section of an electric railway line.

In recent years, Ms. Peak has prepared a number of cultural resource overviews and predictive models for blocks of land proposed for future development for general and specific plans. She has been able to direct a number of surveys of these areas, allowing the model to be tested.

She served as principal investigator for the multi-phase Twelve Bridges Golf Club project in Placer County. She served as liaison with the various agencies, helped prepare the historic properties treatment plan, managed the various phases of test and data recovery excavations, and completed the final report on the analysis of the test phase excavations of a number of prehistoric sites. She is currently involved as the principal investigator for the Teichert Quarry project adjacent to Twelve Bridges in the City of Rocklin, coordinating contacts with Native Americans, the Corps of Engineers and the Office of Historic Preservation.

Ms. Peak has served as project manager for a number of major survey and excavation projects in recent years, including the many surveys and site definition excavations for the 172-mile-long Pacific Pipeline proposed for construction in Santa Barbara, Ventura and Los Angeles counties. She also completed an archival study in the City of Los Angeles for the project. She also served as principal investigator for a major coaxial cable removal project for AT&T.

Additionally, she completed a number of small surveys, served as a construction monitor at several urban sites, and conducted emergency recovery excavations for sites found during monitoring. She has directed the excavations of several historic complexes in Sacramento, Placer and El Dorado Counties.

Ms. Peak is the author of a chapter and two sections of a published history (1999) of Sacramento County, *Sacramento: Gold Rush Legacy, Metropolitan Legacy*. She served as the consultant for a children's book on California, published by Capstone Press in 2003 in the Land of Liberty series.

PEAK & ASSOCIATES, INC.
RESUME

NEAL J. NEUENSCHWANDER **January 2019**
Staff Archeologist
3941 Park Drive, Suite 20-329 3161 Godman Ave., Suite A
El Dorado Hills, CA 95672 Chico, CA 95973
(916) 939-2405 (530) 342-2800

PROFESSIONAL EXPERIENCE

Mr. Neuenschwander has compiled an excellent record of supervision of excavation and survey projects for both the public and private sectors over the past forty years. He has supervised the fieldwork of over 1,700 projects throughout California, Oregon, Nevada, and southern Idaho.

EDUCATION

M.A. candidate - Anthropology - California State University, Chico, 1981-1983
B.A. - Anthropology - California State University, Chico (with distinction), 1981
B.A. - Geography - California State University, Chico (with distinction), 1981

RECENT PROJECTS

Mr. Neuenschwander manages the North Valley office of Peak & Associates, located in Chico, California.

Neuenschwander's duties at Peak & Associates have included the field direction for multiple site excavations and surveys throughout northern, central, and southern California, Nevada, Oregon and Idaho. In this capacity, he has been responsible for the planning and implementation of every aspect of the fieldwork, analysis, and report production phases. During his twenty-five years with the company, he has developed a reputation for his ability to complete projects on-time and within budget parameters, while at the same time maximizing the recovery and analysis of data for the professional community.

Neuenschwander assisted in the cultural resource research and contributed to the text prepared for the DeSabla-Centerville PAD. He is also currently assisting the cultural resource project manager in the completion of studies for the FERC re-licensing of the South Feather Power Project and the Woodleaf-Palermo and Sly Creek Transmission Lines. He led the fieldwork effort, and completed site recordation and evaluation.

Notable projects under Neuenschwander's direction include the nine week excavation at Clarks Flat in Calaveras County, eleven weeks with a crew of over twenty technicians at the Upper Mountain locale (a remote camp six miles from the nearest road), ten weeks of an over 9,000-acre survey at Elk

Hills Naval Petroleum Reserve, and a two-phase excavation at CA-PLU-88, a site that contained radiocarbon evidence of the some of the earliest inhabitation of the Sierra Nevada Mountains.

Mr. Neuenschwander also served as the field director for multiple phases of recordation, testing and evaluation for the 172-mile-long Pacific Pipeline Project proposed for construction in Santa Barbara, Ventura, and Los Angeles counties. He also has served as field director or co-director on a number of AT&T fiber optic projects throughout California, Oregon and Idaho.

In recent years, Neuenschwander has been involved with a number of Caltrans funded and reviewed projects throughout the area, completing surveys, Native American consultation, site testing and assisting in report preparation. He has also contributed his skills during the recordation and evaluation of a number of historic buildings including Rocklin City Hall and Taylor Hall on the California State University, Chico campus.

Mr. Neuenschwander has extensive experience with Placer County's varied cultural resources including serving Field Director during the testing and evaluation of resources at Twelve Bridges Golf Club, and at Clover Valley. He led the team that identified more than 20 additional cultural resources in the Clover Valley property that had been twice inspected by archeologists.

APPENDIX 2

Record Search

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA
COLUSA
CONTRA COSTA
DEL NORTE
HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLATA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
150 Professional Center Drive, Suite E
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
http://www.sonoma.edu/nwic

10/15/2019 NWIC File No.: 19-0641

Neal Neuenschwander
Peak & Associates, Inc.
3161 Godman Avenue
Chico, CA 95973

re: Lakeport Shopping Center Project

The Northwest Information Center received your record search request for the project area referenced above, located on the Lakeport USGS 7.5' quad. The following reflects the results of the records search for the project area and a 0.25 mile radius:

Resources within project area:	None
Resources within 0.25 mile radius:	P-17-002681, 002682, 002683, & 000492.
Reports within project area:	None
Reports within 0.25 mile radius:	S-25921, 6353, 45378, 12765, 23464, 35818, 8195, 37628, 45005, 11689, & 25921.

Resource Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Resource Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Resource Digital Database Records:	☐ enclosed	☒ not requested	☐ nothing listed
Report Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Report Digital Database Records:	☐ enclosed	☒ not requested	☐ nothing listed
Resource Record Copies:	☒ enclosed	☐ not requested	☐ nothing listed
Report Copies:	☐ enclosed	☐ not requested	☒ nothing listed
OHP Historic Properties Directory:	☒ enclosed	☐ not requested	☐ nothing listed
Archaeological Determinations of Eligibility:	☐ enclosed	☐ not requested	☒ nothing listed
CA Inventory of Historic Resources (1976):	☒ enclosed	☐ not requested	☐ nothing listed
Caltrans Bridge Survey:	☐ enclosed	☒ not requested	☐ nothing listed
Ethnographic Information:	☐ enclosed	☒ not requested	☐ nothing listed
Historical Literature:	☐ enclosed	☒ not requested	☐ nothing listed
Historical Maps:	☐ enclosed	☒ not requested	☐ nothing listed
Local Inventories:	☐ enclosed	☒ not requested	☐ nothing listed
GLO and/or Rancho Plat Maps:	☐ enclosed	☒ not requested	☐ nothing listed

Shipwreck Inventory: ☐ enclosed ☒ not requested ☐ nothing listed

*Notes:
** Current versions of these resources are available on-line:
Caltrans Bridge Survey: http://www.dot.ca.gov/hq/structur/strmaint/historic.htm
Soil Survey: http://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/?stateId=CA
Shipwreck Inventory: http://www.slc.ca.gov/Info/Shipwrecks.html

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation 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. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

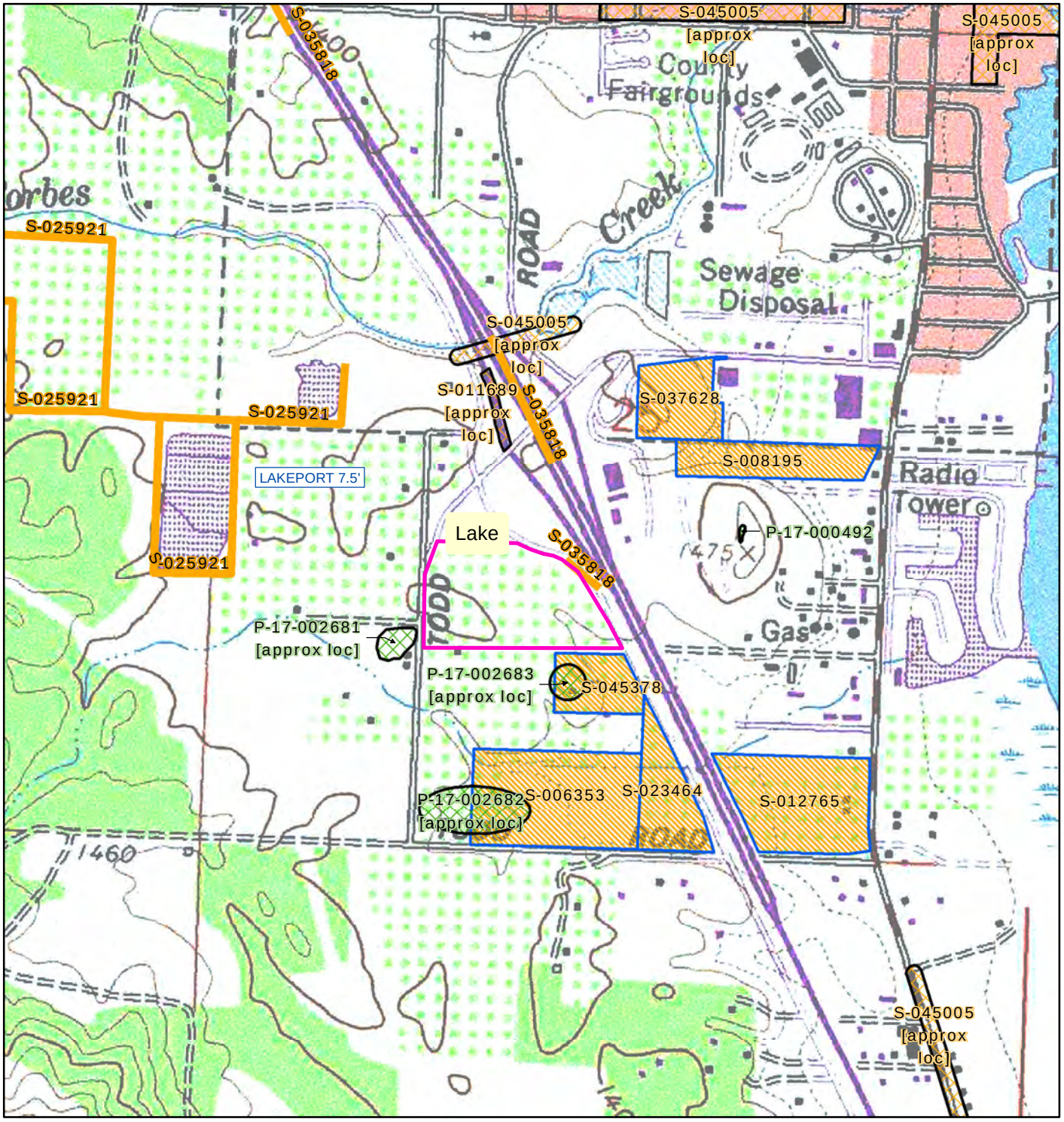
Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,

Lisa C. Hagel
Researcher

Lakeport Shopping Center Project



Northwest Information Center

File #19-0641, 15 October 2019, L. Hagel

May depict confidential cultural resource locations.
Do not distribute.

Feet: 0, 325, 650, 975, 1,300
Meters: 0, 60, 120, 180, 240, 300

N

APPENDIX 3

Native American Consultation

STATE OF CALIFORNIA **GAVIN NEWSOM, Governor**
NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

October 15, 2019

Neal Neuenschwander
Peak & Associates, Inc.

VIA Email to: peakinc@yahoo.com

RE: Lakeport Shopping Center Project, Lake County

Dear Mr. Neuenschwander:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were positive. Please contact the tribes on the attached list for more information. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. 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
Staff Services Analyst

Attachment

Native American Heritage Commission
Native American Contacts List
October 15, 2019

Big Valley Band of Pomo Indians
Anthony Jack, Chairperson
2726 Mission Rancheria Rd. Pomo
Lakeport ,CA 95453
ajack@big-valley.net
(707) 263-3924 Ext. 103
(707) 263-3977 Fax

Habematolel Pomo of Upper Lake
Sherry Treppa, Chairperson
P.O. Box 516 Pomo
Upper Lake ,CA 95485
(707) 275-0734
(707) 275-0757

Mishewal-Wappo Tribe of Alexander Valley
Scott Gabaldon, Chairperson
2275 Silk Road Wappo
Windsor ,CA 95492
scottg@mishewalwappotribe.com
(707) 494-9159

Robinson Rancheria Band of Pomo Indians
Eddie J. Crandall, Chairperson
P.O. Box 4015 Pomo
Nice ,CA 95464
tavilabasket@yahoo.com
(707) 275-0527
(707) 275-0235 Fax

Scotts Valley Band of Pomo Indians
Shawn Davis, Chairperson
1005 Parallel Drive Pomo
Lakeport ,CA 95453 Wailaki
shawn.davis@sv-nsn.gov
(707) 263-4220
(707) 263-4345 Fax

This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code,Section 5097.94 of the Public Resources Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans Tribes for the proposed:
Lakeport Shopping Center Project, Lake County.

PEAK & ASSOCIATES, INC.
CONSULTING ARCHEOLOGY

October 15, 2019

Anthony Jack, Chairperson
Big Valley Band of Pomo Indians
2726 Mission Ranch Road
Lakeport, CA 95453

Subject: Lakeport Shopping Center Project, Lake County, California.

Dear Honorable Chairperson Jack,

The Lakeport Shopping Center Project is a proposed commercial development located on a 15.6-acre parcel southwest of the community of Lakeport along Todd Road west of Highway 29 (please see attached topographic map of project area).

If you have any information concerning cultural resources that may be impacted by the proposed development, or wish to have input or comment on the proposed Lakeport Shopping Center Project, please don't hesitate to contact me, Neal Neuenschwander, Staff Archeologist, Peak & Associates, Inc., 3161 Godman Avenue, Chico, CA 95973, (530) 342-2800, peakinc@yahoo.com Thank you for your time reviewing this letter and attached topographic map of the project area.

Sincerely,

Neal Neuenschwander

Neal Neuenschwander
Staff Archeologist

Enc. USGS topographic map

PEAK & ASSOCIATES, INC.
CONSULTING ARCHEOLOGY

October 15, 2019

Sherry Treppa, Chairperson
Habematolel Pomo of Upper Lake
P.O. Box 516
Upper Lake, CA 95485

Subject: Lakeport Shopping Center Project, Lake County, California.

Dear Honorable Chairperson Treppa,

The Lakeport Shopping Center Project is a proposed commercial development located on a 15.6-acre parcel southwest of the community of Lakeport along Todd Road west of Highway 29 (please see attached topographic map of project area).

If you have any information concerning cultural resources that may be impacted by the proposed development, or wish to have input or comment on the proposed Lakeport Shopping Center Project, please don't hesitate to contact me, Neal Neuenschwander, Staff Archeologist, Peak & Associates, Inc., 3161 Godman Avenue, Chico, CA 95973, (530) 342-2800, peakinc@yahoo.com Thank you for your time reviewing this letter and attached topographic map of the project area.

Sincerely,

Neal Neuenschwander

Neal Neuenschwander
Staff Archeologist

Enc. USGS topographic map

PEAK & ASSOCIATES, INC.
CONSULTING ARCHEOLOGY

October 15, 2019

Scott Gabaldon, Chairperson
Mishewal-Wappo Tribe of Alexander Valley
2275 Silk Road
Windsor, CA 95492

Subject: Lakeport Shopping Center Project, Lake County, California.

Dear Honorable Chairperson Gabaldon,

The Lakeport Shopping Center Project is a proposed commercial development located on a 15.6-acre parcel southwest of the community of Lakeport along Todd Road west of Highway 29 (please see attached topographic map of project area).

If you have any information concerning cultural resources that may be impacted by the proposed development, or wish to have input or comment on the proposed Lakeport Shopping Center Project, please don't hesitate to contact me, Neal Neuenschwander, Staff Archeologist, Peak & Associates, Inc., 3161 Godman Avenue, Chico, CA 95973, (530) 342-2800, peakinc@yahoo.com Thank you for your time reviewing this letter and attached topographic map of the project area.

Sincerely,

Neal Neuenschwander

Neal Neuenschwander
Staff Archeologist

Enc. USGS topographic map

PEAK & ASSOCIATES, INC.
CONSULTING ARCHEOLOGY

October 15, 2019

Eddie J. Crandall, Chairperson
Robinson Rancheria Band of Pomo Indians
P.O. Box 4015
Nice, CA 95464

Subject: Lakeport Shopping Center Project, Lake County, California.

Dear Honorable Chairperson Crandall,

The Lakeport Shopping Center Project is a proposed commercial development located on a 15.6-acre parcel southwest of the community of Lakeport along Todd Road west of Highway 29 (please see attached topographic map of project area).

If you have any information concerning cultural resources that may be impacted by the proposed development, or wish to have input or comment on the proposed Lakeport Shopping Center Project, please don't hesitate to contact me, Neal Neuenschwander, Staff Archeologist, Peak & Associates, Inc., 3161 Godman Avenue, Chico, CA 95973, (530) 342-2800, peakinc@yahoo.com Thank you for your time reviewing this letter and attached topographic map of the project area.

Sincerely,

Neal Neuenschwander

Neal Neuenschwander
Staff Archeologist

Enc. USGS topographic map

PEAK & ASSOCIATES, INC.
CONSULTING ARCHEOLOGY

October 15, 2019

Shawn Davis, Chairperson
Scotts Valley Band of Pomo Indians
1005 Parallel Drive
Lakeport, CA 95453

Subject: Lakeport Shopping Center Project, Lake County, California.

Dear Honorable Chairperson Davis,

The Lakeport Shopping Center Project is a proposed commercial development located on a 15.6-acre parcel southwest of the community of Lakeport along Todd Road west of Highway 29 (please see attached topographic map of project area).

If you have any information concerning cultural resources that may be impacted by the proposed development, or wish to have input or comment on the proposed Lakeport Shopping Center Project, please don't hesitate to contact me, Neal Neuenschwander, Staff Archeologist, Peak & Associates, Inc., 3161 Godman Avenue, Chico, CA 95973, (530) 342-2800, peakinc@yahoo.com Thank you for your time reviewing this letter and attached topographic map of the project area.

Sincerely,

Neal Neuenschwander

Neal Neuenschwander
Staff Archeologist

Enc. USGS topographic map

APPENDIX E

Geotechnical Investigation

APPENDIX F

Traffic Impact Study

Lakeport Shopping Center
Traffic Impact Analysis
City of Lakeport, California

Prepared for:
Mr. Rahul Bhatt
NEW VISTA DEVELOPERS LLC
2261 Annapolis Drive
Fremont, CA 94539

Prepared by:
TJW ENGINEERING, INC.
9841 Irvine Center Drive, Suite 200
Irvine, CA 92618

April 26, 2021

TJW ENGINEERING, INC.
TRAFFIC ENGINEERING &
TRANSPORTATION PLANNING
CONSULTANTS

April 26, 2021

Mr. Rahul Bhatt
NEW VISTA DEVELOPERS LLC
2261 Annapolis Drive
Fremont, CA 94539

Subject: Lakeport Shopping Center Traffic Impact Analysis, City of Lakeport

Dear Mr. Bhatt:

TJW ENGINEERING, INC. (TJW) is pleased to present you with this traffic impact analysis for the proposed project located south of the Todd Road and Parallel Drive intersection in the City of Lakeport.

This traffic study has been prepared to meet the traffic study requirements for the City of Lakeport and assesses the forecast traffic operations associated with the proposed project and its impact on the local street network. This report is being submitted to you for review and forwarding to the City of Lakeport.

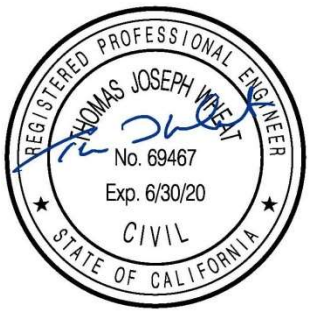
Please contact us at (949) 878-3509 if you have any questions regarding this analysis.

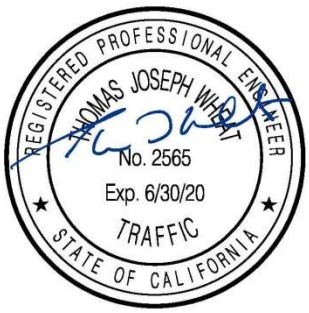
Sincerely,

Thomas Wheat, PE, TE
President

David Chew, PTP
Transportation Planner

Registered Civil Engineer *#69467*
Registered Traffic Engineer *#2565*





Jeffrey Chinchilla, PE
Project Engineer

Lakeport Shopping Center
Traffic Impact Analysis
City of Lakeport, California

Prepared for:

Mr. Rahul Bhatt
NEW VISTA DEVELOPERS LLC
2261 Annapolis Drive
Fremont, CA 94539

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9841 Irvine Center Drive, Suite 200
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Thomas Wheat, PE, TE
David Chew, PTP
Jeffrey Chinchilla, PE

April 26, 2021
JN: MEI-20-001

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1.0 EXECUTIVE SUMMARY

This traffic impact analysis (TIA) analyzes the projected traffic operations associated with the proposed project located south of the Parallel Drive and Todd Road intersection in the City of Lakeport. The purpose of this TIA is to evaluate potential circulation system deficiencies that may result from development of the proposed project, and to recommend improvements to achieve acceptable operations, if applicable. This analysis has been prepared in coordination with the City of Lakeport via a scoping agreement (See ***Appendix A***) and is pursuant to applicable City of Lakeport traffic impact analysis guidelines.

The proposed project includes a shopping center with various land uses (below). Site access is planned via three (3) driveways along Parallel Drive which include full access (left-in/out and right-in/out). The project will expand Parallel Drive along the frontage of the project to accommodate a two-way-left-turn-lane and will add a bus stop along Parallel Drive.

- 16 pump gas station with a 3,200 square foot convenience market
- 3,200 square foot restaurant
- 1,850 square foot coffee shop with drive-thru
- 1,850 square foot retail space
- 70 Room Hotel
- 46,630 square foot commercial shopping/retail space

The proposed project is projected to generate 270 net total AM peak hour trips, 319 net total PM peak hour trips and 4,860 net total daily trips.

A level of service (LOS) and vehicle miles traveled (VMT) analysis was conducted for the proposed project. The following intersections in the vicinity of the project site have been included in the intersection level of service (LOS) analysis:

1. Lakeport Blvd / SR-29 NB Ramps
2. Lakeport Blvd / SR-29 SB Ramps
3. Lakeport Blvd / Parallel Drive
4. SR-175 / Parallel Drive
5. SR-175 / SR-29
6. Lakeport Blvd / Bevins Street
7. Parallel Drive / Project Driveway 1
8. Parallel Drive / Project Driveway 2
9. Parallel Drive / Project Driveway 3

The study intersections are analyzed for the following study scenarios:

- Existing Conditions (Existing);
- Existing with Project Conditions (EP);
- Future Year 2040 No Project Conditions (2040 NP); and
- Future Year 2040 with Project Conditions (2040 WP).

The City is currently in the process of adopting its VMT analysis guidelines. As part of this analysis, coordination was done with the City to establish an appropriate methodology to analyze VMT. Based on those coordination efforts, it was determined to utilize the SB743 Vehicle Miles Traveled Regional Baseline Study (October 2020) that was prepared for the Lake Area Planning Council (APC). Consistent with the Lake APC VMT baseline study, this analysis utilizes the Wine County Travel Demand Model to analyze total VMT with and without the project.

1.1 SUMMARY OF ANALYSIS RESULTS

Table ES-1 summarizes the results of the intersection LOS analysis based on the City of Lakeport and Caltrans thresholds of significance for analyzing transportation impacts.

Table ES-1: *Summary of LOS Analysis*

Intersection	Existing	EP	2040 NP	2040 WP
#1 – Lakeport Blvd / SR-29 NB Ramps	No Impact	**Deficient**	No Impact	**Deficient**
#2 – Lakeport Blvd / SR-29 SB Ramps	**Deficient**	**Deficient**	**Deficient**	**Deficient**
#3 – Lakeport Blvd / Parallel Drive	No Impact	No Impact	No Impact	No Impact
#4 – SR-175 / Parallel Drive	No Impact	No Impact	No Impact	No Impact
#5 – SR-175 / SR-29	No Impact	No Impact	No Impact	No Impact
#6 – Lakeport Blvd / Bevins St	**Deficient**	**Deficient**	**Deficient**	**Deficient**
#7 – Parallel Drive / Project Driveway 1	No Impact	No Impact	No Impact	No Impact
#8 – Parallel Drive / Project Driveway 2	No Impact	No Impact	No Impact	No Impact
#9 – Parallel Drive/ Project Driveway 3	No Impact	No Impact	No Impact	No Impact

The proposed project will participate in the cost of off-site improvements through payments to the City and/or County adopted traffic impact fee program. The program's contribution to a transportation improvement funding mechanisms or as a fair share contribution towards a cumulative impacted facility should be considered sufficient to address the project's fair share towards mitigation measure(s) designed to alleviate cumulative project impacts.

Table ES-2 summarizes the results of the VMT analysis based on the current recommendations from the SB743 VMT Regional Baseline Study (October 2020). The proposed project will reduce VMT and is not anticipated to have a significant impact on local or regional VMT.

Table ES-2: *Summary of VMT Analysis*

Scenario	Regional-Wide			Lake County		
	No Project	With Project	Difference	No Project	With Project	Difference
2020	19,593,021	19,578,769	(14,252)	1,411,077	1,367,341	(43,736)
2030	22,133,420	19,603,368	(2,530,052)	1,960,618	1,367,228	(593,390)

Sources: Caltrans Wine Country Travel Demand Model

1.2 SUMMARY OF DEFICIENCIES AND RECOMMENDED IMPROVEMENTS

The following improvements are recommended at the deficient study intersections for corresponding conditions to reduce peak hour delay and improve intersection LOS:

EP Recommended Improvement (EP-1): SR-29 NB Ramps/Lakeport Blvd – Signalize intersection.

EP Recommended Improvement (EP-2): SR-29 SB Ramps/Lakeport Blvd – Signalize intersection.

EP Recommended Improvement (EP-3): Bevins St/Lakeport Blvd – Signalize intersection.

2040 WP Recommended Improvement (2040WP-1): SR-29 NB Ramps/Lakeport Blvd – Signalize intersection.

2040 WP Recommended Improvement (2040WP-2): SR-29 SB Ramps/Lakeport Blvd – Signalize intersection.

2040 WP Recommended Improvement (2040WP-3): Bevins St/Lakeport Blvd – Signalize intersection.

1.3 SUMMARY OF LOCAL AND REGIONAL FUNDING MECHANISMS

The proposed project will participate in the cost of off-site improvements through payment of City DIF fees based on the current fees at the time of construction of the proposed project. The project's contribution to the aforementioned transportation impact fee programs or as a fair share contribution towards a cumulative deficient facility not found to be covered by a pre-existing fee program should be considered sufficient to address the project's fair share towards mitigation measure(s) designed to alleviate cumulative project deficiencies. ***Table ES-3*** calculates the proposed project's fair share percentage at deficient intersections.

Table ES-3: *Fair Share Calculations*

Intersection	Existing AM&PM Peak Hour Volume (A)	2040 WP AM&PM Peak Hour Volume (B)	Project AM&PM Peak Hour Volume (C)	Fair Share (C) / (B-A)
#1 – SR-29 NB Ramps/Lakeport Blvd	2,215	3,450	237	19.2%
#2 – SR-29 SB Ramps/Lakeport Blvd	1,885	3,144	411	32.6%
#3 – Bevins St/Lakeport Blvd	2,109	3,118	59	5.8%

2.0 INTRODUCTION

This traffic impact analysis (TIA) analyzes the projected traffic operations associated with the proposed project located south of the Parallel Drive and Todd Road intersection in the City of Lakeport. The purpose of this TIA is to evaluate potential circulation system deficiencies that may result from development of the proposed project, and to recommend improvements to achieve acceptable operations, if applicable. This analysis has been prepared in coordination with the City of Lakeport via a scoping agreement (See ***Appendix A***) and is pursuant to applicable City of Lakeport traffic impact analysis guidelines.

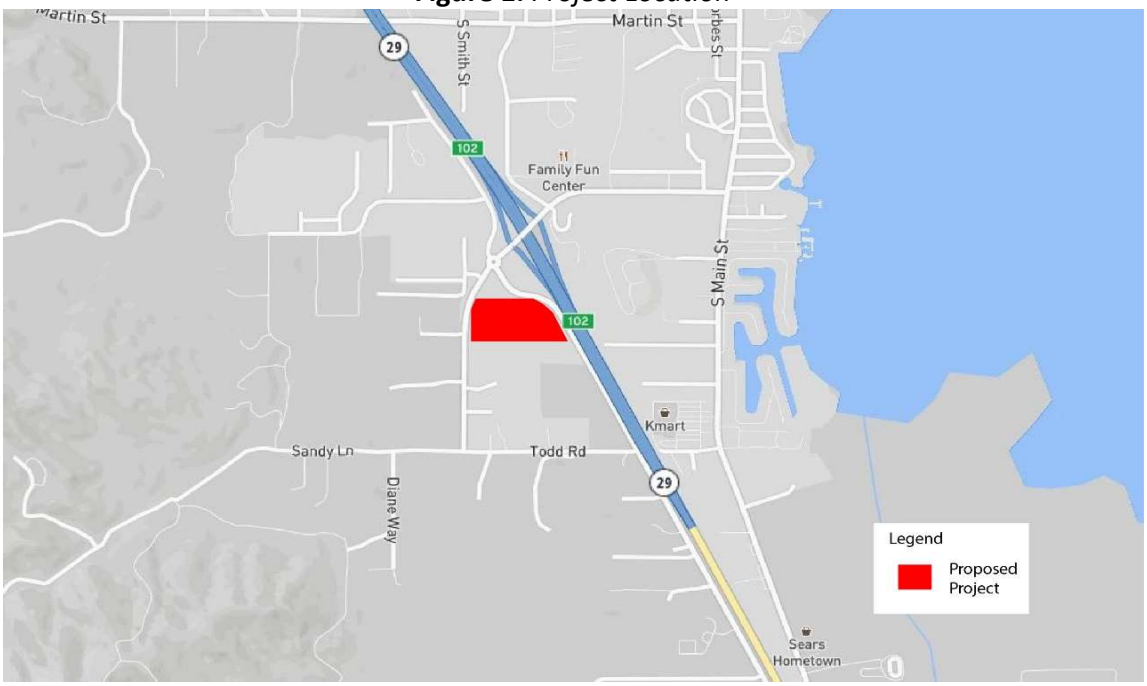
2.1 PROJECT DESCRIPTION

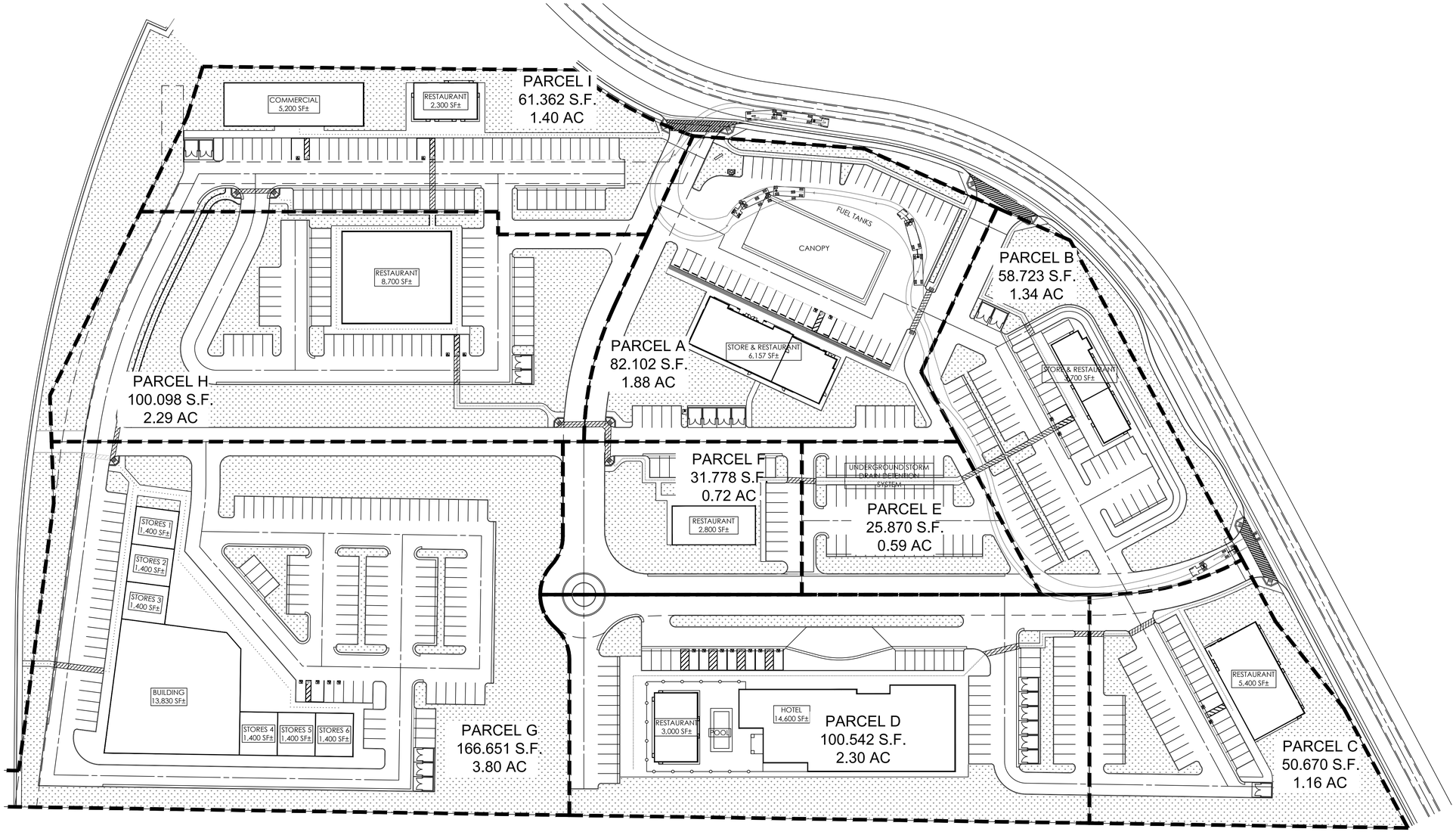
The proposed project includes a shopping center with various land uses (below). Site access is planned via three (3) driveways along Parallel Drive which include full access (left-in/out and right-in/out). The project will expand Parallel Drive along the frontage of the project to accommodate a two-way-left-turn-lane and will add a bus stop along Parallel Drive.

- 16 pump gas station with a 3,200 square foot convenience market
- 3,200 square foot restaurant
- 1,850 square foot coffee shop with drive-thru
- 1,850 square foot retail space
- 70 Room Hotel
- 46,630 square foot commercial shopping/retail space

Figure 1 shows the project site location. ***Exhibit 1*** shows the proposed project site plan.

Figure 1: *Project Location*





01 — **PROPOSED MASTER SITE PLAN**
SCALE: 1"=50'

N

TOTAL AREA= ±674,308 S.F. (15.48 ACRES)
TOTAL PARKING= 467 SPACES

AGCDC.COM
AGC DESIGN CONCEPT, INC.
28524 Constellation Rd
Valencia, CA 91355
Phone: 661.295.1111

NO.	DATE	REVISIONS	BY

LAKEPORT SHOPPING CENTER

1842 TODD RD
LAKEPORT, CA

PROPOSED MASTER SITE PLAN

consultant job#

master release date

project exe date	master drawn by
09.24.19	EJ

Filename AGC
—

Facility/Project

sheet name

CUP—1

2.2 STUDY AREA

The following intersections in the vicinity of the project site have been included in the intersection level of service (LOS) analysis:

1. Lakeport Blvd / SR-29 NB Ramps
2. Lakeport Blvd / SR-29 SB Ramps
3. Lakeport Blvd / Parallel Drive
4. SR-175 / Parallel Drive
5. SR-175 / SR-29
6. Lakeport Blvd / Bevins Street
7. Parallel Drive / Project Driveway 1
8. Parallel Drive / Project Driveway 2
9. Parallel Drive / Project Driveway 3

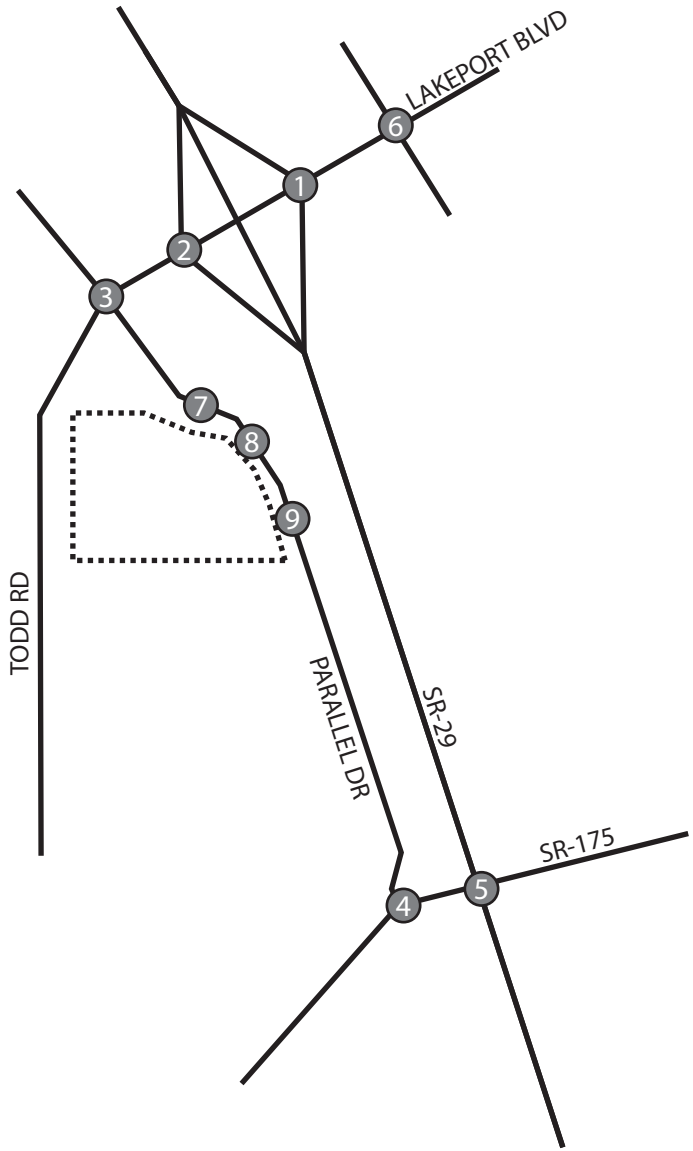
The study intersections are all located within the City of Lakeport.

Exhibit 2 shows the location of the study intersections which are analyzed for the following study scenarios:

- Existing Conditions (Existing);
- Existing with Project Conditions (EP);
- Future Year 2040 No Project Conditions (2040 NP); and
- Future Year 2040 with Project Conditions (2040 WP).

Traffic operations are evaluated for the following time periods:

- Weekday AM Peak Hour occurring within 7:00 AM to 9:00 AM; and
- Weekday PM Peak Hour occurring within 4:00 PM to 6:00 PM.



Legend:

Project Site

Study Intersection

TJW ENGINEERING, INC.

Exhibit 2: Project Location and Study Area

MEI-20-001 Lakeport Shopping Center Traffic Impact Analysis

Not to Scale

2.3 ANALYSIS METHODOLOGY

2.3.1 Level of Service Analysis

Level of Service (LOS) is commonly used to describe the quality of flow on roadways and at intersections using a range of LOS from LOS A (free flow with little congestion) to LOS F (severely congested conditions). The definitions for LOS for interruption of traffic flow differ depending on the type of traffic control (traffic signal, unsignalized intersection with side street stops, unsignalized intersection with all-way stops). The *Highway Capacity Manual (HCM) 6* (Transportation Research Board, 2016) methodology expresses the LOS of an intersection in terms of delay time for the intersection approaches. The HCM methodology utilizes different procedures for different types of intersection control.

Table 1 describes the general characteristics of traffic flow and accompanying delay ranges at signalized intersections.

Table 1: *HCM – LOS & Delay Ranges – Signalized Intersections*

Level Of Service	Description	Delay (in seconds)
A	Very favorable progression; most vehicles arrive during green signal and do not stop. Short cycle lengths.	0 – 10.00
B	Good progression, short cycle lengths. More vehicles stop than for LOS A.	10.01 – 20.00
C	Fair progression; longer cycle lengths. Individual cycle failures may begin to appear. The number of vehicles stopping is significant, though many vehicles still pass through without stopping.	20.01 – 35.00
D	Progression less favorable, longer cycle length and high flow/capacity ratio. The proportion of vehicles that pass through without stopping diminishes. Individual cycle failures are obvious.	35.01 – 55.00
E	Severe congestion with some long standing queues on critical approaches. Poor progression, long cycle lengths and high flow/capacity ratio. Individual cycle failures are frequent.	55.01 – 80.00
F	Very poor progression, long cycle lengths and many individual cycle failures. Arrival flow rates exceed capacity of intersection.	> 80.01

Source: Transportation Research Board, *Highway Capacity Manual*, HCM6 Edition (Washington D.C., 2016).

This analysis utilizes *Trafficware's Synchro*, Version 10 analysis software for all signalized and unsignalized intersections. Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis specified in Chapter 16 of the HCM. The level of service and capacity analysis performed within Synchro takes the optimization and coordination of signalized intersections within a network into consideration.

SIGNIFICANCE CRITERIA

City of Lakeport

The City of Lakeport General Plan Transportation Element sets forth the City's LOS standard, which is C or better on most roadway segments and intersections. The City of Lakeport requires mitigation of project traffic impacts whenever traffic generated by the proposed project causes an increase of the analyzed intersection to exceed LOS C. In the event that an intersection currently operates at a level inconsistent with the General

Plan's policy (LOS C or better), it is the responsibility of the project to restore the intersection to existing (baseline) operating conditions.

Caltrans

Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State Highway facilities, although Caltrans acknowledges that this may not always be feasible. If an existing State Highway facility is operating at less than this target LOS, the existing LOS should be maintained. In general, the region-wide goal for acceptable LOS on all freeways, roadway segments and intersections is LOS "D."

Impacts to State Highway intersections will be considered significant if:

- The Project causes the LOS of a State Highway intersection to degrade from LOS D or better to LOS E or F; or
- At State Highway intersections operating at LOS E or F for pre-project conditions, Caltrans threshold of significance is to maintain the pre-project measure of effectiveness for the intersection.

2.3.2 Vehicle Miles Traveled (VMT)

Senate Bill (SB) 743 was adopted in 2013 requiring the Governor's Office of Planning and Research (OPR) to identify new metrics for identifying and mitigating transportation impacts within the California Environmental Quality Act (CEQA). For land use projects, OPR has identified Vehicle Miles Traveled (VMT) as the new metric for transportation analysis under CEQA. The regulatory changes to the CEQA guidelines that implement SB 743 were approved on December 28th, 2018 with an implementation date of July 1st, 2020 as the new metric.

The City is currently in the process of adopting its VMT analysis guidelines. As part of this analysis, coordination was done with the City to establish an appropriate methodology to analyze VMT. Based on those coordination efforts, it was determined to utilize the SB743 Vehicle Miles Traveled Regional Baseline Study (October 2020) that was prepared for the Lake Area Planning Council (APC). Consistent with the Lake APC VMT baseline study, this analysis utilizes the Wine County Travel Demand Model to analyze total VMT with and without the project. The threshold is set at the total VMT budget for the model area; this is estimated at approximately 6.5% growth (annualized).

3.0 EXISTING CONDITIONS

3.1 EXISTING CIRCULATION NETWORK/STUDY AREA CONDITIONS

The characteristics of the roadway system in the vicinity of the project site are described in ***Table 2. Exhibit 3*** show existing conditions study area intersection and roadway geometry.

Table 2: *Roadway Characteristics within Study Area*

Roadway	Classification[1]	Jurisdiction	Direction	Existing Travel Lanes	Median Type[2]
Lakeport Blvd	Arterial	Lakeport	East-West	2	PM
Parallel Dr	Arterial	Lakeport	North-South	2	PM
Bevins St	Collector	Lakeport	North-South	2	PM

1: Sources: City of Lakeport General Plan (2009)
2: PM = Painted Median

3.2 EXISTING TRAFFIC VOLUMES

To determine the existing operation of the study intersections, AM and PM peak period traffic counts at the study intersections were collected on Wednesday February 26, 2020.

In light of the current COVID-19 pandemic shut down and stay-at-home orders, TJW coordinated with City staff on closure dates to ensure the traffic counts represent "typical" conditions. The City has provided confirmation that no closures took place on the date of Thursday March 12th, 2020. In addition, the Lake County shut-down of schools (and subsequently Lake County) did not take place until the following week on Tuesday March 17th, 2020. It should also be noted, traffic counts for the purpose of traffic analysis are taken and used to represent "typical" traffic volumes/patterns. As there is uncertainty to when and to what degree traffic volumes/patterns would be restored to "typical" (pre COVID-19) traffic behavior, the City has acknowledged this and approved the use of these traffic counts. Detailed traffic count data is provided in ***Appendix B.***

Exhibit 4 shows existing AM and PM peak hour volumes at the study intersections.

3.3 EXISTING CONDITIONS INTERSECTION LEVEL OF SERVICE ANALYSIS

Existing conditions AM and PM peak hour intersection analysis is shown in ***Table 3***. Calculations are based on the existing geometrics at the study area intersections as shown in ***Exhibit 3.*** HCM analysis sheets are provided in ***Appendix C***.

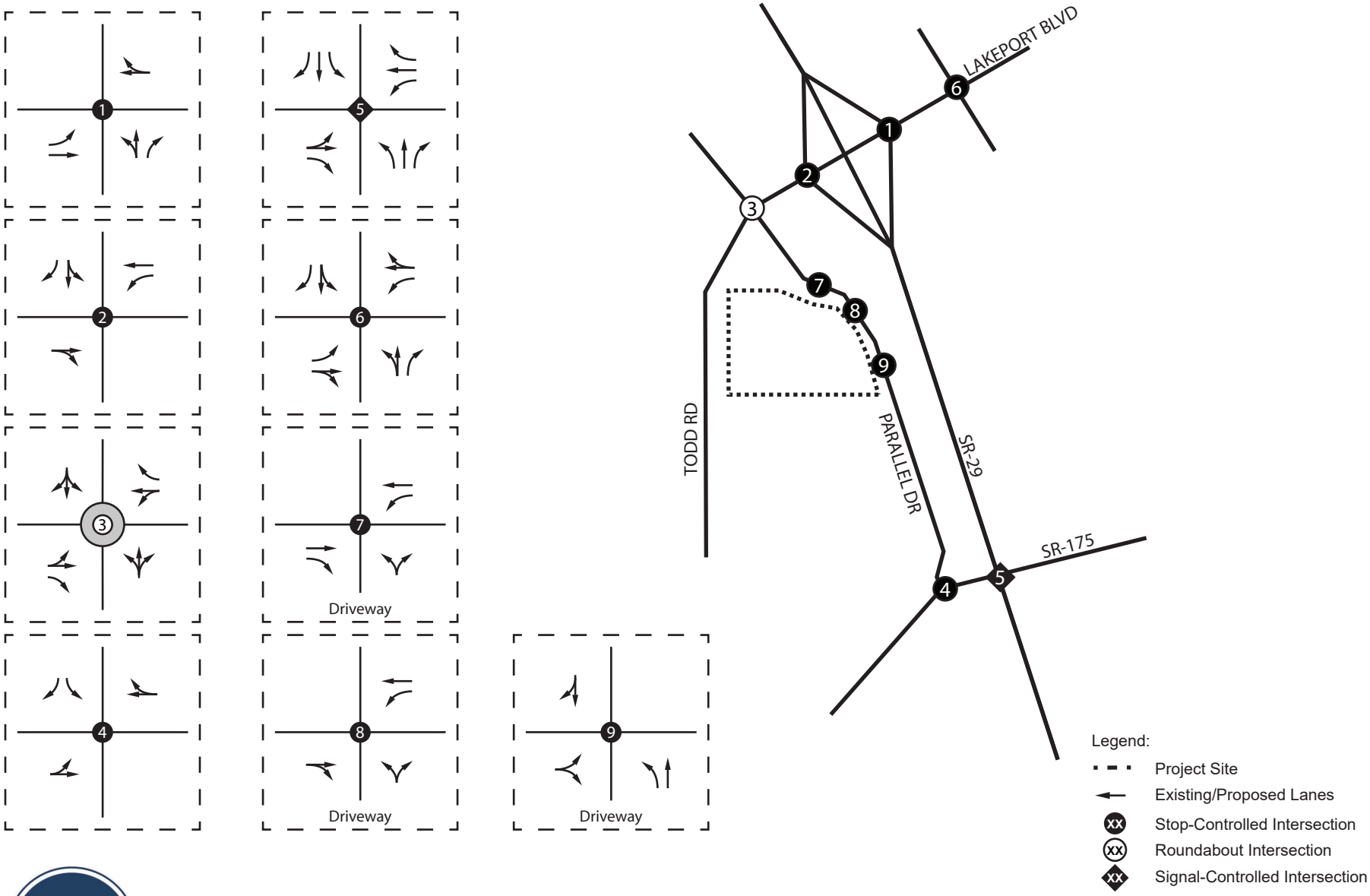
Table 3: *Intersection Analysis – Existing Conditions*

Intersection			Control Type	Peak Hour	Existing Conditions	
					Delay[1]	LOS
1	SR-29 NB Ramps	Lakeport Blvd	OWSC	AM	12.9	B
				PM	15.1	C
2	SR-29 SB Ramps	Lakeport Blvd	OWSC	AM	15.5	C
				PM	**79.0**	**F**
3	Parallel Drive	Lakeport Blvd	RBT	AM	3.5	A
				PM	4.3	A
4	Parallel Drive	SR-175	OWSC	AM	9.6	A
				PM	9.9	A
5	SR-29	SR-175	Signal	AM	17.7	B
				PM	18.7	B
6	Bevins Street	Lakeport Blvd	TWSC	AM	22.2	C
				PM	**55.4**	**F**
7	Driveway 1	Parallel Drive	OWSC	AM	--	--
				PM	--	--
8	Driveway 2	Parallel Drive	OWSC	AM	--	--
				PM	--	--
9	Parallel Drive	Driveway 3	OWSC	AM	--	--
				PM	--	--

Note: OWSC = One-Way-Stop-Control; RBT = Roundabout; TWSC = Two-Way-Stop-Control; Delay shown in seconds per vehicle
1 = Per the Highway Capacity Manual 6th Edition, intersections with one-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in ***Table 3***, the study intersections are currently operating at an acceptable LOS during the AM and PM peak hours for *existing* conditions with the exception of:

- Int 2 - SR-29 SB Ramps and Lakeport Blvd (LOS F in the PM Peak)
- Int 6 - Bevins St and Lakeport Blvd (LOS F in the PM Peak)



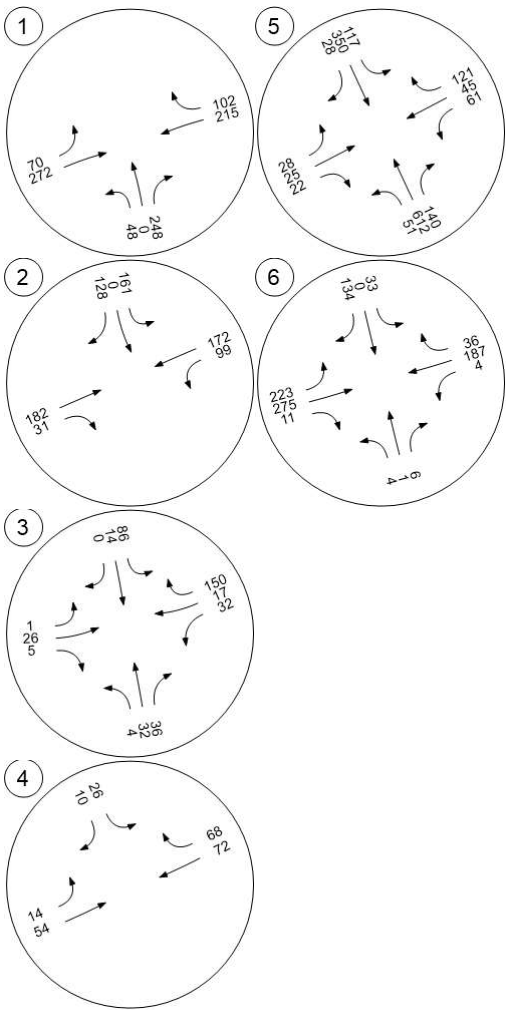
TJW ENGINEERING, INC.

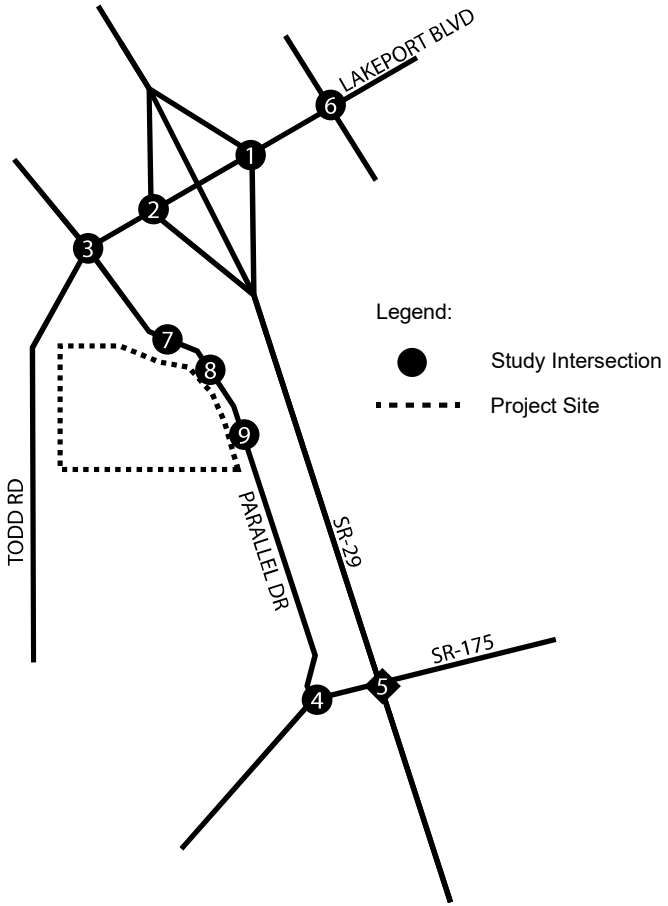
Exhibit 3: Lane Geometry and Intersection Control

MEI-20-001 Lakeport Shopping Center Traffic Impact Analysis

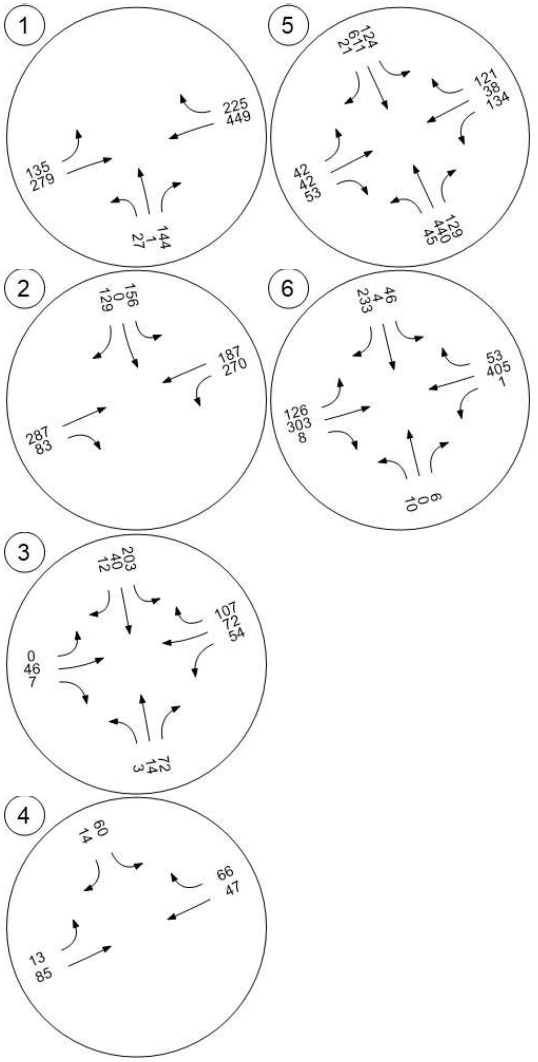
Not to Scale

AM Peak Hour Volumes





PM Peak Hour Volumes



TJW ENGINEERING, INC.

Exhibit 4: Existing AM/PM Peak Hour Volumes

MEI-20-001 Lakeport Shopping Center Traffic Impact Analysis

Not to Scale

4.0 PROPOSED PROJECT

4.1 PROJECT DESCRIPTION

The proposed project includes a shopping center with various land uses (below). Site access is planned via three (3) driveways along Parallel Drive which include full access (left-in/out and right-in/out). The project will expand Parallel Drive along the frontage of the project to accommodate a two-way-left-turn-lane and will add a bus stop along Parallel Drive.

- 16 pump gas station with a 3,200 square foot convenience market
- 3,200 square foot restaurant
- 1,850 square foot coffee shop with drive-thru
- 1,850 square foot retail space
- 70 Room Hotel
- 46,630 square foot commercial shopping/retail space

Exhibit 1 previously showed the proposed project site plan.

4.2 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic, both inbound and outbound, produced by a development. Determining trip generation for a proposed project is based on projecting the amount of traffic that the specific land uses being proposed will produce. Industry standard *Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition, 2017)* trip generation rates were used to determine trip generation for the proposed project land uses.

Table 4 summarizes the projected AM peak hour, PM peak hour and daily trip generation of the proposed project. The proposed project is projected to generate 270 net total AM peak hour trips, 319 net total PM peak hour trips and 4,860 net total daily trips.

4.3 PROJECT TRIP DISTRIBUTION

Projecting trip distribution involves the process of identifying probable destinations and traffic routes that will be utilized by the proposed project's traffic. The potential interaction between the proposed land use and surrounding regional access routes are considered to identify the probable routes onto which project traffic would distribute. The projected trip distribution for the proposed project is based on anticipated travel patterns to and from the project site.

Exhibit 5 shows the projected trip distribution of proposed project trips.

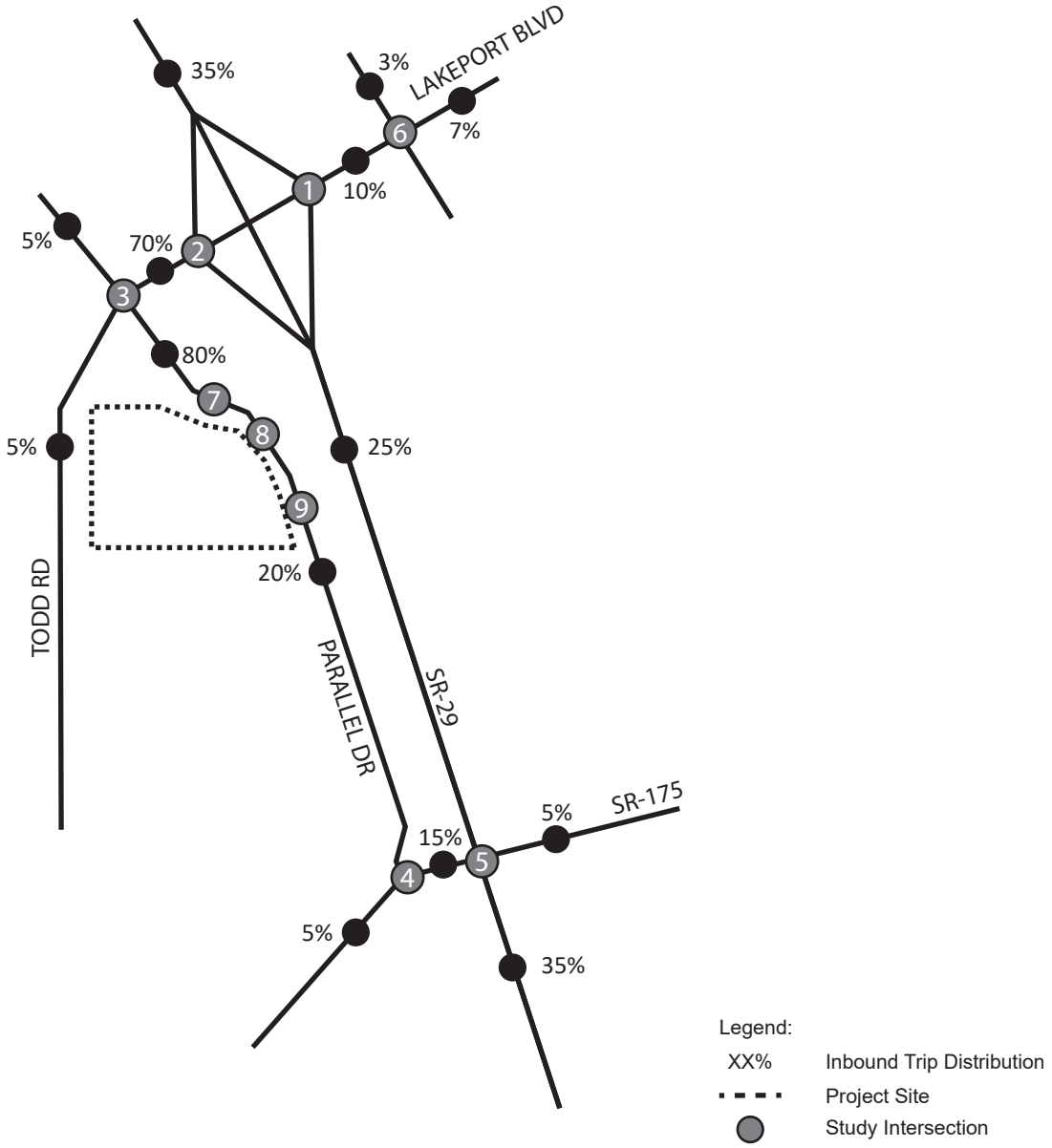
4.4 FUTURE TRAFFIC

Future Year (2040) traffic volumes were developed using a growth rate based on the *Caltrans District 1 Growth Factor (2014)*. This rate was determined to be 1.45.

Proposed Land Use[1]	Qty	Unit[2]	Daily Trips (ADTs)		AM Peak Hour					PM Peak Hour					Pass-By % Reduction		
			Rate	Volume	Rate	In:Out Split	Volume			Rate	In:Out Split	Volume					
							In	Out	Total			In	Out	Total	AM	PM	Daily
PHASE 1																	
Parcel A																	
Gas Station w/ Convenience Market (945)	16.0	VFP	205.36	3,286	12.47	51:49	102	98	200	13.99	51:49	114	110	224	62%	56%	50%
High Turnover (Sit Down) Restaurant (932)	3.2	TSF	112.18	359	9.94	55:45	18	14	32	9.77	62:38	19	12	31	20%	25%	20%
Parcel B																	
Coffee Shop with Drive Thru (937)	1.85	TSF	754.55	1,396	101.1	51:49	95	92	187	36.31	50:50	34	34	67	50%	50%	50%
Shopping Center (820)	1.85	TSF	37.75	70	0.94	62:38	1	1	2	3.81	48:52	3	4	7	10%	34%	10%
Parcel D																	
Hotel (310)	70.00	RM	8.36	585	0.47	59:41	19	14	33	0.60	51:49	21	21	42	--	--	--
Totals																	
Total				5,696			236	218	454			192	179	371			
Pass-By				-2,420			-115	-110	-224.1			-87	-82	-169.1			
Net Total				**3,276**			**121**	**109**	**230**			**105**	**97**	**202**			
PHASE 2																	
Parcels C,F,G,H,I																	
Shopping Center (820)	46.63	TSF	37.75	1,760	0.94	62:38	27	17	44	3.81	48:52	85	93	178	10%	34%	10%
FULL BUILD OUT TOTALS																	
Total				7,456			263	235	498			277	272	549			
Pass-By				-2,596			-117	-111	-228.5			-116	-114	-229.6			
Net Total				**4,860**			**146**	**124**	**270**			**161**	**158**	**319**			

1: Rates from ITE Trip Generation (10th Edition, 2017)

2: TSF = Thousand Square Feet; RM = Rooms, VFP = Vehicle Fueling Positions



TJW ENGINEERING, INC.

Exhibit 5: Trip Distrubtion at Study Intersections

MEI-20-001 Lakeport Shopping Center Traffic Impact Analysis

Not to Scale

5.0 EXISTING WITH PROJECT CONDITIONS (EP)

Existing with Project (EP) conditions analysis is intended to identify the project-related effects on the existing circulation system by comparing *EP* conditions to *Existing* conditions.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the *Existing with Project* scenario are consistent with those previously shown in ***Exhibit 3*** with the exception of:

- Widening of Parallel Drive to accommodate a two-way-left-turn-lane along frontage of project
- Project driveways

5.2 EP TRAFFIC VOLUMES

EP volumes include existing traffic plus the addition of the traffic projected to be generated by the proposed project.

Exhibit 6 shows *EP* AM and PM peak hour volumes at the study intersections.

5.3 EP INTERSECTION LEVEL OF SERVICE ANALYSIS

EP conditions AM and PM peak hour intersection analysis is shown in ***Table 5***. Calculations are based on the existing geometrics at the study area intersections as shown in ***Exhibit 3.*** HCM analysis sheets are provided in ***Appendix C***.

Table 5: *Intersection Analysis – EP Conditions*

Intersection			Control Type	Peak Hour	Existing Conditions		EP Conditions		Change	Deficient?
					Delay[1]	LOS	Delay[1]	LOS		
1	SR-29 NB Ramps	Lakeport Blvd	OWSC	AM	12.9	B	14.7	B	1.8	No
				PM	15.1	C	**37.6**	**E**	22.5	**Yes**
2	SR-29 SB Ramps	Lakeport Blvd	OWSC	AM	15.5	C	18.2	C	2.7	No
				PM	**79.0**	**F**	**125.1**	**F**	46.1	**Yes**
3	Parallel Drive	Lakeport Blvd	RBT	AM	3.5	A	4.0	A	0.5	No
				PM	4.3	A	5.2	A	0.9	No
4	Parallel Drive	SR-175	OWSC	AM	9.6	A	10.0	B	0.4	No
				PM	9.6	A	10.2	B	0.3	No
3	SR-29	SR-175	Signal	AM	17.7	B	19.0	B	1.3	No
				PM	18.7	B	19.9	B	1.2	No
3	Bevins Street	Lakeport Blvd	TWSC	AM	22.2	C	23.4	C	1.2	No
				PM	**55.4**	**F**	**62.5**	**F**	7.1	**Yes**
3	Driveway 1	Parallel Drive	OWSC	AM	--	--	9.9	A	9.9	No
				PM	--	--	10.8	B	10.8	No
3	Driveway 2	Parallel Drive	OWSC	AM	--	--	9.7	A	9.7	No
				PM	--	--	10.4	B	10.4	No
3	Parallel Drive	Driveway 3	OWSC	AM	--	--	9.5	A	9.5	No
				PM	--	--	10.2	B	10.2	No

Note: OWSC = One-Way-Stop-Control; RBT = Roundabout; TWSC = Two-Way-Stop-Control; Delay shown in seconds per vehicle
1 = Per the Highway Capacity Manual 6th Edition, intersections with one-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in ***Table 5,*** the study intersections are currently operating at an acceptable LOS during the AM and PM peak hours for *EP* conditions with the exception of:

- Int 1 - SR-29 NB Ramps and Lakeport Blvd (LOS F in the PM Peak)
- Int 2 - SR-29 SB Ramps and Lakeport Blvd (LOS F in the PM Peak)
- Int 6 - Bevins Street and Lakeport Blvd (LOS F in the PM Peak)

5.4 EP RECOMMENDED IMPROVEMENTS

The following improvements are recommended for *EP* conditions.

EP Recommended Improvement (EP-1): SR-29 NB Ramps/Lakeport Blvd – Signalize intersection.

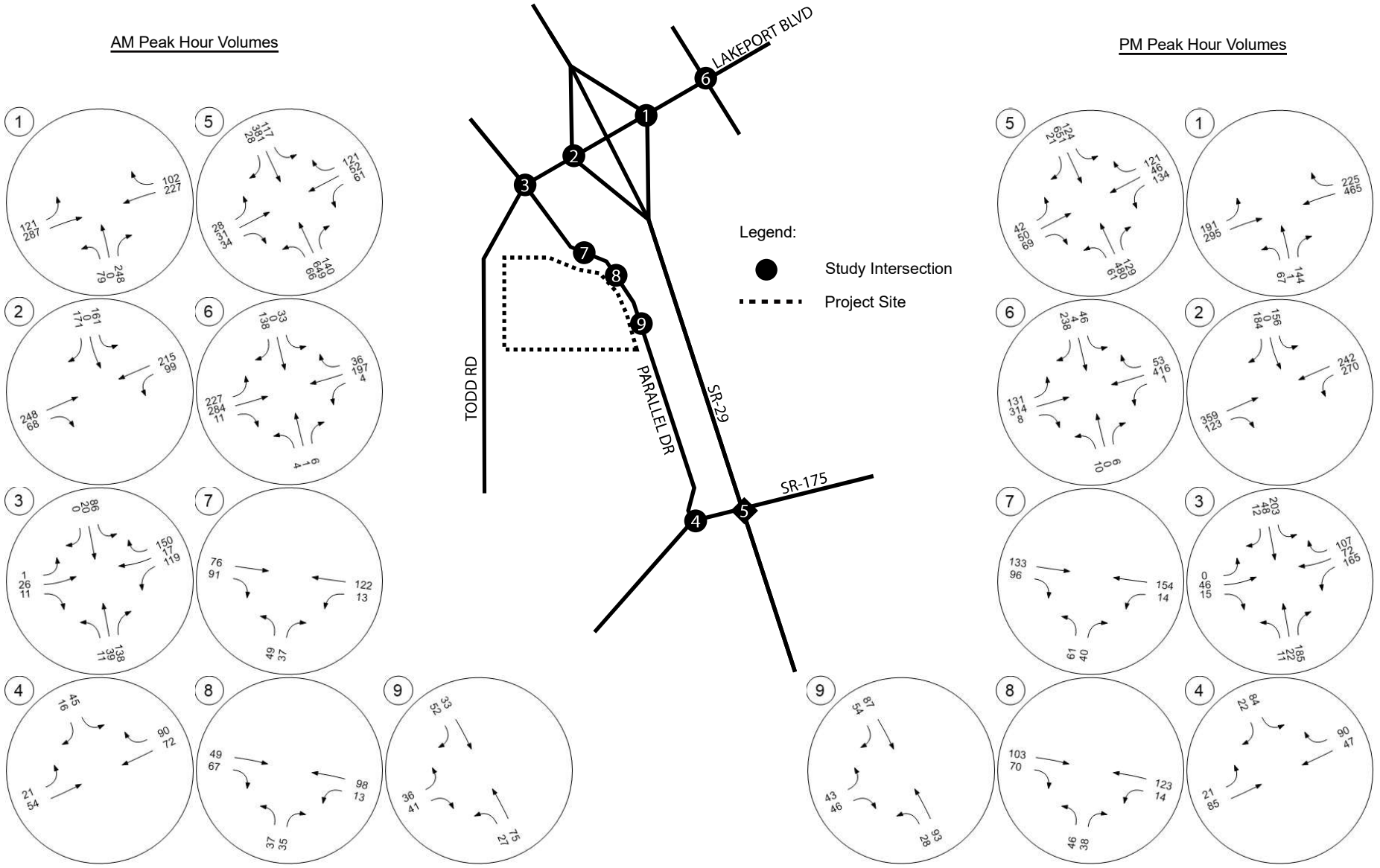
EP Recommended Improvement (EP-2): SR-29 SB Ramps/Lakeport Blvd – Signalize intersection.

EP Recommended Improvement (EP-3): Bevins St/Lakeport Blvd – Signalize intersection.

Table 6 shows *EP* level of service at the intersection with the recommended improvements.

Table 6: *Intersection Analysis – EP Conditions with Recommended Improvements*

Intersection			Control Type	Peak Hour	Existing Conditions		EP Conditions		EP With Recommended Improvements	
					Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS
1	SR-29 NB Ramps	Lakeport Blvd	Signal	AM	12.9	B	14.7	B	9.6	A
				PM	15.1	C	**37.6**	**E**	16.3	B
2	SR-29 NB Ramps	Lakeport Blvd	Signal	AM	15.5	C	18.2	C	9.8	A
				PM	**79.0**	**F**	**125.1**	**F**	14.4	B
3	Bevins St	Lakeport Blvd	Signal	AM	22.2	C	23.4	C	13.0	B
				PM	**55.4**	**F**	**62.5**	**F**	14.9	B



TJW ENGINEERING, INC.

Exhibit 6: EP Conditions AM/PM Peak Hour Volumes

MEI-20-001 Lakeport Shopping Center Traffic Impact Analysis

Not to Scale

6.0 FUTURE YEAR (2040) WITH PROJECT CONDITIONS (2040 NP)

Future Year without project (2040 NP) conditions analysis is intended to identify baseline conditions in the future year without the proposed project.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the *Future Year 2040 NP* scenario are consistent with those previously shown in ***Exhibit 3*** with the exception of:

- Widening of Parallel Drive to accommodate a two-way-left-turn-lane along frontage of project
- Project driveways

6.2 2040 NP TRAFFIC VOLUMES

2040 NP volumes include background traffic. Based on the *Caltrans District 1 Growth Factor (2014)* a growth rate of 1.45 was used to establish baseline 2040 volumes. See ***Appendix A*** for Caltrans Growth rates.

Exhibit 7 shows *2040 NP* AM and PM peak hour volumes at the study intersections.

6.3 2040 NP INTERSECTION LEVEL OF SERVICE ANALYSIS

2040 NP conditions AM and PM peak hour intersection analysis is shown in ***Table 7***. HCM analysis sheets are provided in ***Appendix C.***

Table 7: *Intersection Analysis – 2040 NP Conditions*

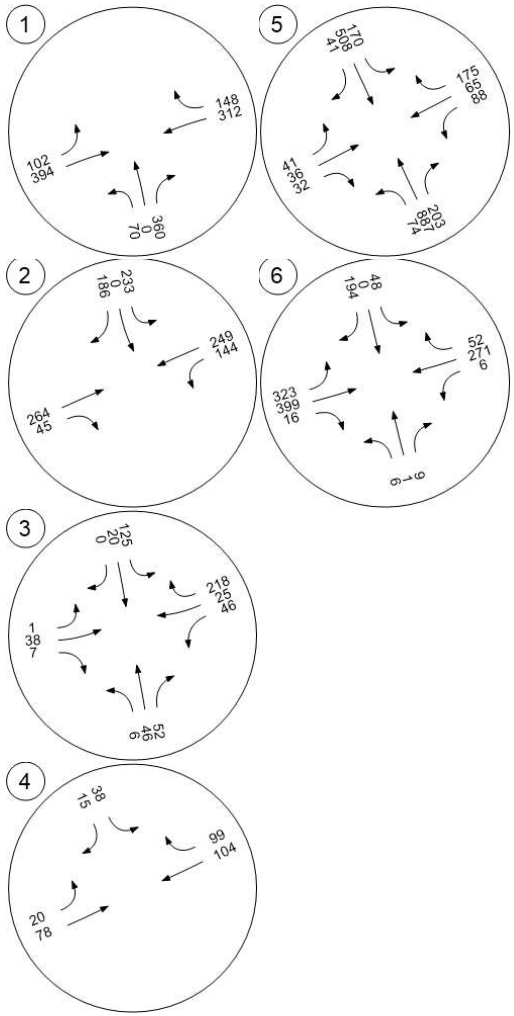
Intersection			Control Type	Peak Hour	2040 NP Conditions	
					Delay[1]	LOS
1	SR-29 NB Ramps	Lakeport Blvd	OWSC	AM	20.1	C
				PM	29.6	D
2	SR-29 SB Ramps	Lakeport Blvd	OWSC	AM	40.7	E
				PM	**690.3**	**F**
3	Parallel Drive	Lakeport Blvd	RBT	AM	3.9	A
				PM	5.2	A
4	Parallel Drive	SR-175	OWSC	AM	10.4	B
				PM	10.8	B
5	SR-29	SR-175	Signal	AM	26.7	C
				PM	29.1	C
6	Bevins Street	Lakeport Blvd	TWSC	AM	**40.6**	**E**
				PM	**412.5**	**F**
7	Driveway 1	Parallel Drive	OWSC	AM	--	--
				PM	--	--
8	Driveway 2	Parallel Drive	OWSC	AM	--	--
				PM	--	--
9	Parallel Drive	Driveway 3	OWSC	AM	--	--
				PM	--	--

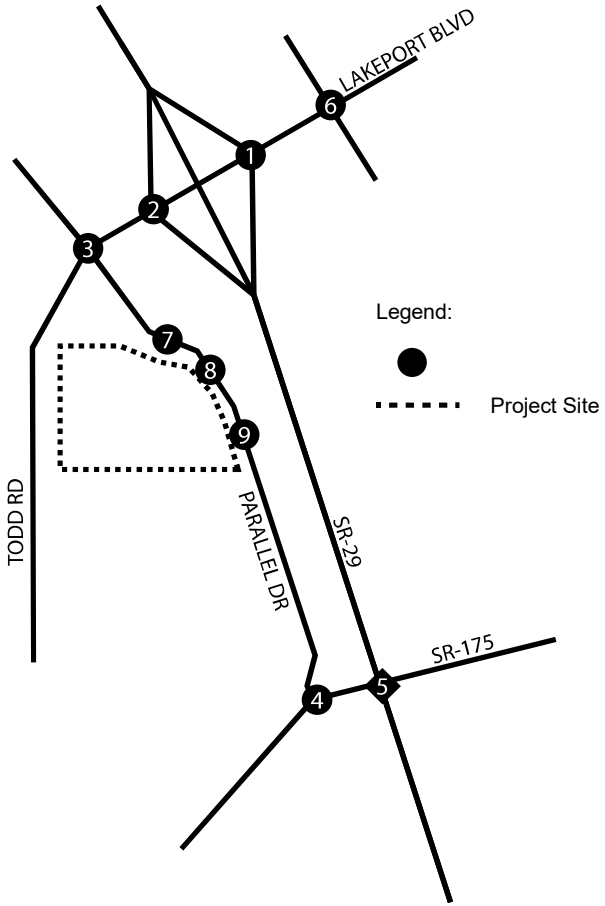
Note: OWSC = One-Way-Stop-Control; RBT = Roundabout; TWSC = Two-Way-Stop-Control; Delay shown in seconds per vehicle
1 = Per the Highway Capacity Manual 6th Edition, intersections with one-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in ***Table 7***, the study intersections are projected to operate at acceptable LOS during the AM and PM peak hours for *2040 NP* conditions with the exception of:

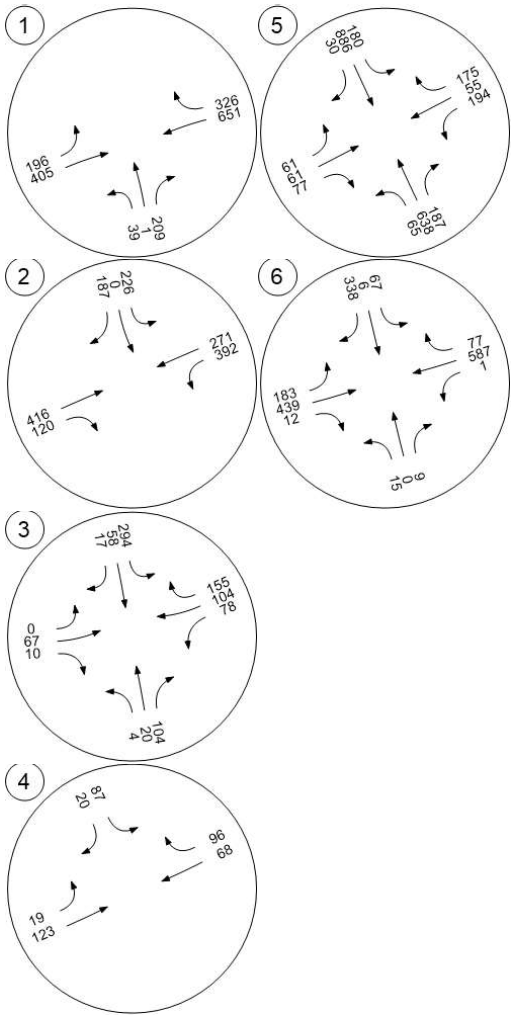
- Int 2 - SR-29 SB Ramps and Lakeport Blvd (LOS F in the PM Peak)
- Int 6 - Bevins Street and Lakeport Blvd (LOS E and F in the AM and PM Peak)

AM Peak Hour Volumes





PM Peak Hour Volumes



TJW ENGINEERING, INC.

Exhibit 7: 2040 NP Conditions AM/PM Peak Hour Volumes

MEI-20-001 Lakeport Shopping Center Traffic Impact Analysis

Not to Scale

7.0 FUTURE YEAR (2040) WITH PROJECT CONDITIONS (2040 WP)

Future Year with project conditions (2040 WP) analysis is intended to identify the project-related cumulative effects to the circulation system in the future year 2040.

7.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the *Future Year 2040 WP* scenario are consistent with those previously shown in ***Exhibit 3*** with the exception of:

- Widening of Parallel Drive to accommodate a two-way-left-turn-lane along frontage of project
- Project driveways

7.2 2040 WP TRAFFIC VOLUMES

2040 NP volumes include background traffic plus the addition of the traffic projected to be generated by the proposed project. Based on the *Caltrans District 1 Growth Factor (2014)* a growth rate of 1.45 was used to establish baseline 2040 volumes. See ***Appendix A*** for the complete Caltrans Growth rates.

Exhibit 8 shows *2040 WP* AM and PM peak hour volumes at the study intersections.

7.3 2040 WP INTERSECTION LEVEL OF SERVICE ANALYSIS

2040 WP conditions AM and PM peak hour intersection analysis is shown in ***Table 8***. Calculations are based on the existing geometrics at the study area intersections as shown in ***Exhibit 3.*** HCM analysis sheets are provided in ***Appendix C***.

Table 8: *Intersection Analysis – 2040 WP Conditions*

Intersection			Control Type	Peak Hour	2040 NP Conditions		2040 WP Conditions		Change	Deficient?
					Delay[1]	LOS	Delay[1]	LOS		
1	SR-29 NB Ramps	Lakeport Blvd	OWSC	AM	20.1	C	26.0	D	5.9	No
				PM	29.6	D	**156.4**	**F**	126.8	**Yes**
2	SR-29 SB Ramps	Lakeport Blvd	OWSC	AM	40.7	E	**66.0**	**F**	25.3	**Yes**
				PM	**690.3**	**F**	**902.5**	**F**	212.2	**Yes**
3	Parallel Drive	Lakeport Blvd	RBT	AM	3.9	A	4.4	A	0.5	No
				PM	5.2	A	6.3	A	1.1	No
4	Parallel Drive	SR-175	OWSC	AM	10.4	B	10.4	B	0.0	No
				PM	10.8	B	11.1	B	0.3	No
3	SR-29	SR-175	Signal	AM	26.7	C	28.6	C	1.9	No
				PM	29.1	C	31.9	C	2.8	No
3	Bevins Street	Lakeport Blvd	TWSC	AM	**40.6**	**E**	**42.7**	**E**	2.1	**Yes**
				PM	**412.5**	**F**	**566.9**	**F**	154.4	**Yes**
3	Driveway 1	Parallel Drive	OWSC	AM	--	--	10.2	B	10.2	No
				PM	--	--	11.4	B	11.4	No
3	Driveway 2	Parallel Drive	OWSC	AM	--	--	9.9	A	9.9	No
				PM	--	--	10.9	B	10.9	No
3	Parallel Drive	Driveway 3	OWSC	AM	--	--	9.8	A	9.8	N
				PM	--	--	10.6	B	10.6	N

Note: OWSC = One-Way-Stop-Control; RBT = Roundabout; TWSC = Two-Way-Stop-Control; Delay shown in seconds per vehicle
1 = Per the Highway Capacity Manual 6th Edition, intersections with one-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in ***Table 8***, the study intersections are projected to operate at acceptable LOS during the AM and PM peak hours for *2040 WP* conditions with the exception of:

- Int 1 - SR-29 NB Ramps and Lakeport Blvd (LOS E and F in the AM and PM Peak)
- Int 2 - SR-29 SB Ramps and Lakeport Blvd (LOS F in the AM and PM Peak)
- Int 6 - Bevins Street and Lakeport Blvd (LOS F in the AM and PM Peak)

7.4 2040 WP RECOMMENDED IMPROVEMENTS

The following improvements are recommended for *2040 WP* conditions.

2040 WP Recommended Improvement (2040WP-1): SR-29 NB Ramps/Lakeport Blvd – Signalize intersection.

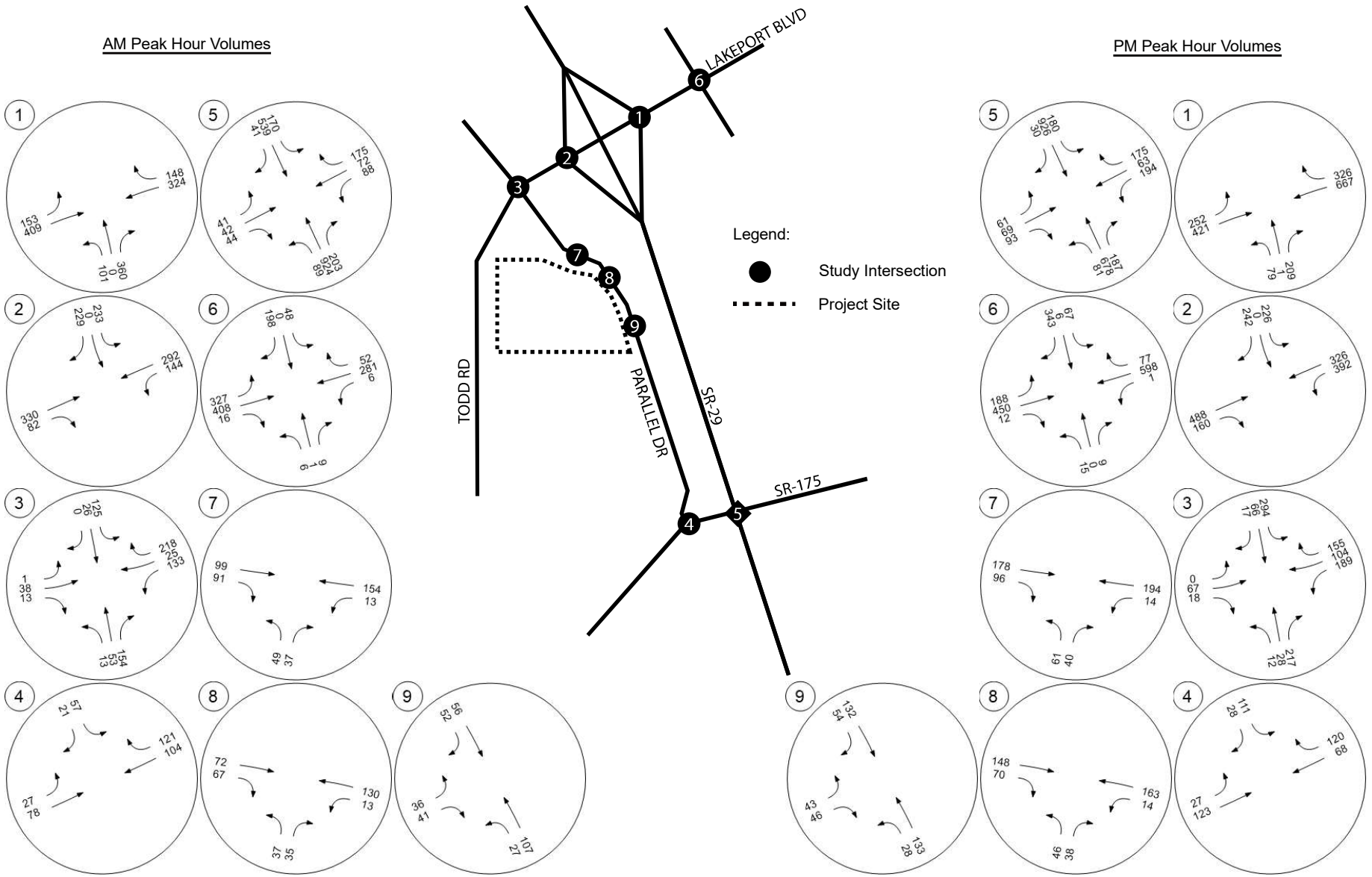
2040 WP Recommended Improvement (2040WP-2): SR-29 SB Ramps/Lakeport Blvd – Signalize intersection.

2040 WP Recommended Improvement (2040WP-3): Bevins St/Lakeport Blvd – Signalize intersection.

Table 9 shows *2040 WP* level of service at the intersection with the recommended improvements.

Table 9: *Intersection Analysis – 2040 WP Conditions with Recommended Improvements*

Intersection			Control Type	Peak Hour	2040 NP Conditions		2040 WP Conditions		2040 WP With Recommended Improvements	
					Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS
1	SR-29 NB Ramps	Lakeport Blvd	Signal	AM	20.1	C	**26.0**	**D**	9.6	A
				PM	29.6	D	**156.4**	**F**	15.4	B
2	SR-29 NB Ramps	Lakeport Blvd	Signal	AM	40.7	E	**66.0**	**F**	9.6	A
				PM	**690.3**	**F**	**902.5**	**F**	23.3	C
3	Bevins St	Lakeport Blvd	Signal	AM	**40.6**	**E**	**42.7**	**E**	14.3	B
				PM	**412.5**	**F**	**566.9**	**F**	18.1	B



TJW ENGINEERING, INC.

Exhibit 8: 2040 WP Conditions AM/PM Peak Hour Volumes

MEI-20-001 Lakeport Shopping Center Traffic Impact Analysis

Not to Scale

8.0 VEHICLE MILES TRAVELED (VMT) ANALYSIS

This section summarizes the project's Vehicle Miles Traveled (VMT) and its impact to regional levels as required for CEQA compliance.

8.1 WINE COUNTRY TRAVEL DEMAND MODEL

This analysis utilized the Wine Country Travel Demand Model. Caltrans was provided with the project land use information to develop 2020 and 2030 model scenarios analyzing without and with project conditions. The goal of these model runs was to determine the project's impact on the region's total VMT. The results of the model runs are shown below for total VMT.

Table 10: *Total VMT*

Scenario	Regional-Wide			Lake County		
	No Project	With Project	Difference	No Project	With Project	Difference
2020	19,593,021	19,578,769	(14,252)	1,411,077	1,367,341	(43,736)
2030	22,133,420	19,603,368	(2,530,052)	1,960,618	1,367,228	(593,390)

Sources: Caltrans Wine Country Travel Demand Model

As shown in Table X, the overall effect of the project reduces the regional VMT. This is expected as the project's land uses are expected to be primarily local-serving reducing regional VMT. Based on the current recommendations from the SB743 VMT Regional Baseline Study (October 2020) that was prepared for the Lake Area Planning Council, the threshold of significance is set at the total VMT budget for the model area; currently this is estimated at approximately 6.5% growth (annualized). Since the proposed project will not increase the regional VMT, the proposed project is not anticipated to have a significant impact on regional VMT.

9.0 LOCAL AND REGIONAL FUNDING MECHANISMS

Transportation improvements throughout the City are funded through the City of Lakeport Development Impact Fee (DIF) program. It is anticipated that the proposed project will be subject to the City's DIF. Identification and timing of needed improvements is generally determined through local jurisdictions based upon a variety of factors.

The project's contribution to the aforementioned transportation/development impact fee program or as a fair share contribution towards a cumulatively deficient facility not found to be covered by a pre-existing fee program should be considered sufficient to address the project's fair share towards mitigation measure(s) designed to alleviate the cumulative deficiencies.

The City Engineer will ultimately determine the improvements required at off-site intersections.

9.1 CITY OF LAKEPORT DEVELOPMENT IMPACT FEE (DIF) PROGRAM

The proposed project is located within the City of Lakeport and will therefore be subject to the City's Development Impact Fees (DIF) and a fair share contribution to project deficiencies.

The proposed project will participate in the cost of off-site improvements through payment of City DIF fees based on the current fees at the time of construction of the proposed project.

9.1 FAIR SHARE CALCULATIONS

The proposed project will participate in the cost of off-site improvements through payment of City DIF fees based on the current fees at the time of construction of the proposed project. The project's contribution to the aforementioned transportation impact fee programs or as a fair share contribution towards a cumulative deficient facility not found to be covered by a pre-existing fee program should be considered sufficient to address the project's fair share towards mitigation measure(s) designed to alleviate cumulative project deficiencies. ***Table 11*** calculates the proposed project's fair share percentage at deficient intersections.

Table 11:
Fair Share Calculations

Intersection	Existing AM&PM Peak Hour Volume (A)	2040 WP AM&PM Peak Hour Volume (B)	Project AM&PM Peak Hour Volume (C)	Fair Share (C) / (B-A)
#1 – SR-29 NB Ramps/Lakeport Blvd	2,215	3,450	237	19.2%
#2 – SR-29 SB Ramps/Lakeport Blvd	1,885	3,144	411	32.6%
#3 – Bevins St/Lakeport Blvd	2,109	3,118	59	5.8%

Appendices

APPENDIX A
SCOPING AGREEMENT

June 18, 2020

TJW ENGINEERING, INC.
TRAFFIC ENGINEERING &
TRANSPORTATION PLANNING
CONSULTANTS

Mr. Rex Jackman
California Department of Transportation (District 1)
1656 Union Street
Eureka, CA 95501

SUBJECT: Lakeport Shopping Center Traffic Impact Analysis Scoping Agreement, City of Lakeport

Dear Mr. Jackman,

*TJW Engineering, Inc. (*TJW*)* will be preparing a traffic impact analysis (TIA) for the proposed Lakeport Shopping Center project located south of the Parallel Drive and Todd Road intersection in the City of Lakeport. The proposed project includes a commercial shopping center comprised of the below land uses. The proposed site plan has been attached to this letter. TJW anticipates the following scope will be required to prepare the TIA.

- 70 Room Hotel
- 16 Pump Gas Station with a 3,200 square feet convenience market
- 10,450 square feet of restaurants with drive-thru
- 17,100 square feet of restaurants
- 29,280 square feet of commercial retail

SCOPE OF SERVICES

Trip Generation and Distribution Assumptions

Trip generation for the proposed project will be developed using rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition). The trip generation rates and anticipated trip generation for the project are attached. The project is anticipated to generate 8,121 daily trips, 567 AM peak hour trips, and 595 PM peak hour trips.

Trip Distribution Assumptions

Project trip distributions will be based on the surrounding regional access routes to identify probable routes onto which project traffic would distribute. The anticipated travel patterns to and from the project site are shown in the attached exhibits.

Study Intersections

The study area shall generally include intersections in which the proposed project may create a significant impact. As such, TJW proposes to include the following intersections:

1. Lakeport Blvd / SR-29 NB Ramps
2. Lakeport Blvd / SR-29 SB Ramps
3. Lakeport Blvd / Parallel Drive
4. SR-175 / Parallel Dr
5. SR-175 / SR-29
6. Parallel Dr / Project Driveways
7. Lakeport Blvd / Bevins Street

Analysis Methodology and Scenarios

The analysis of traffic and level of service will be provided for the following scenarios and will include an assessment of traffic mitigation measures if any are required.

1. Existing No Project Conditions
2. Existing with Project Conditions
3. Future Year 20-Year Projects (2040) No Project Conditions
4. Future Year 20-Year Projects (2040) with Project Conditions

The TIA will analyze study intersections during the AM and PM peak hours. Intersection level of service (LOS) will be calculated using the Highway Capacity Manual 6 (HCM 6) analysis methodologies using Synchro software.

Volume Development

Traffic volumes for existing year traffic conditions will be based on existing AM and PM peak hour traffic counts for the study intersections identified above. New traffic counts were conducted on Thursday March 12th, 2020 between the hours of 7 AM and 9 AM for the AM peak hour and between the hours of 4 PM and 6 PM for the PM peak hour. [1]

In light of the current COVID-19 pandemic shut down and stay-at-home orders, TJW has coordinated with City staff on closure dates to ensure the traffic counts represent "typical" conditions. The City has provided confirmation that no closures took place on the date of Thursday March 12th, 2020. In addition, the Lake County shut-down of schools (and subsequently Lake County) did not take place

[1] Lakeport Blvd/Bevins St was not collected on March 12th, 2020. To develop baseline volumes for this intersection, counts will be conducted today (amid COVID-19 conditions) at the northbound and southbound SR-29 ramps and Lakeport Blvd and compared to counts from March 12th 2020. The growth rate between these counts will be applied to new traffic counts taken at Lakeport Blvd/Bevins St to reflect baseline conditions comparable to March 12th, 2020.

until the following week on Tuesday March 17th, 2020. It should also be noted, traffic counts for the purpose of traffic analysis are taken and used to represent "typical" traffic volumes/patterns. As there is uncertainty to when and to what degree traffic volumes/patterns would be restored to "typical" (pre COVID-19) traffic behavior, The City and TJW propose to use traffic counts from March 12th, 2020 to represent and establish baseline conditions for the purpose of this traffic analysis.

Future Year 2040 traffic volumes will be developed by applying a 20-year straight line factor (provided by Caltrans – District 1 Growth Factors).

Project Impact Assessment and Mitigation Measures

Intersection LOS without the project will be compared to the intersection LOS with the project for each of the analysis scenarios to determine potential traffic/infrastructure deficiencies. Determination of traffic/infrastructure deficiencies will be made based on the City's general plan threshold standards (LOS D). If the level of service analysis shows that the project causes a deficiency at a study facility, feasible improvements will be recommended. As applicable, the project's fair share will be estimated as part of the mitigation section (fair share is 100% for direct impacts).

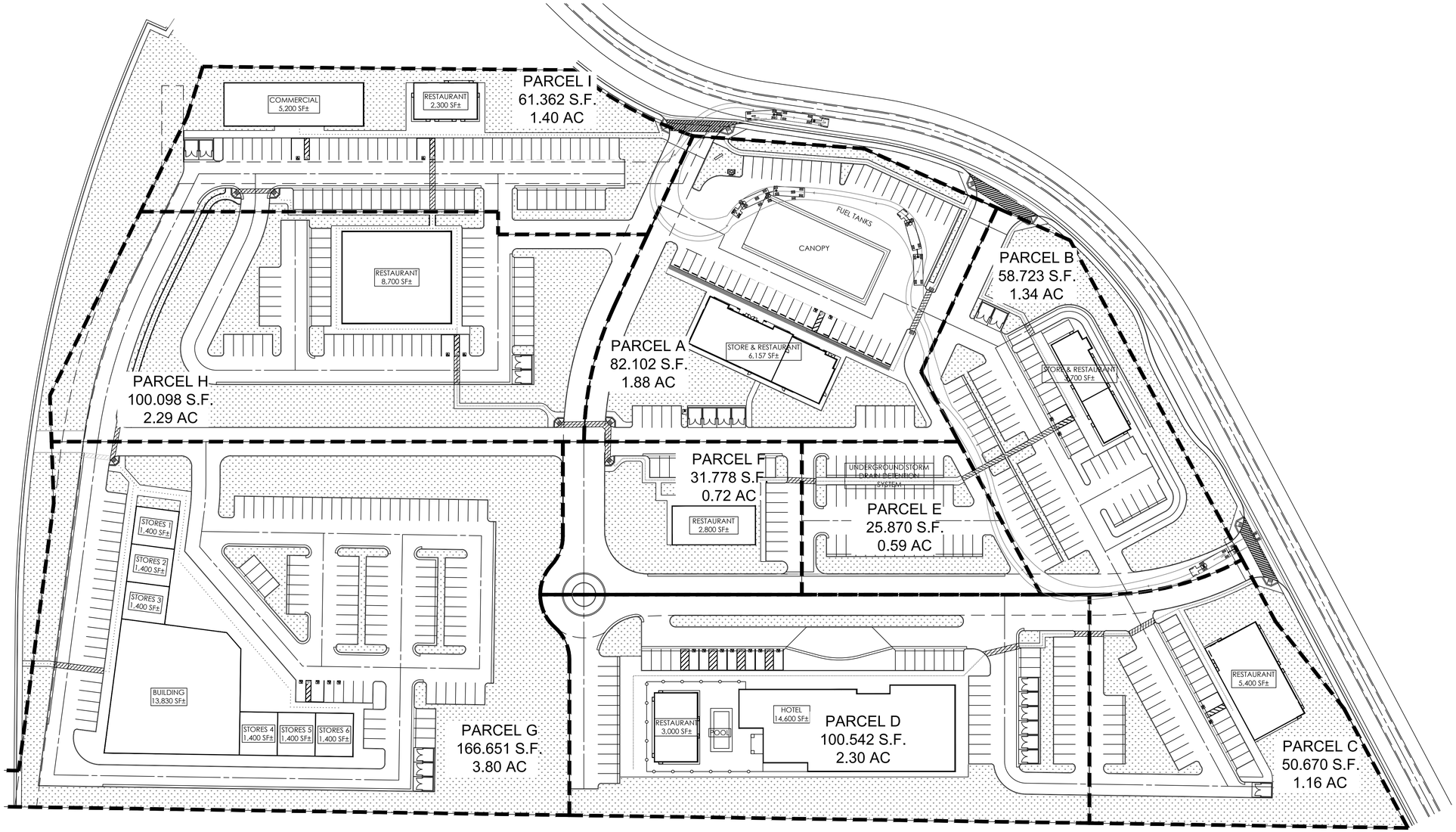
Vehicle Miles Traveled

The state has set a target of reducing Vehicle Miles Traveled (VMT) in California. TJW will provide a VMT summary comparing VMT per capita for the region to project VMT to determine if the project is consistent with the VMT goals set forth by the State. Methodology used for this summary will be consistent with the Office of Planning and Research (OPR) recommendations for using CalEEMod for VMT assessment (case study pp.47-52).

If you have any questions regarding this scope of work or project, please feel free to contact me at David@tjwengineering.com or at (949) 878-3509.

Sincerely,

David Chew, PTP
Transportation Planning Manager
TJW Engineering, Inc.



01 — **PROPOSED MASTER SITE PLAN**
SCALE: 1"=50'

N

TOTAL AREA= ±674,308 S.F. (15.48 ACRES)
TOTAL PARKING= 467 SPACES

AGCDC.COM
AGC DESIGN CONCEPT, INC.
28524 Constellation Rd
Valencia, CA 91355
Phone: 661.295.1111

NO.	DATE	REVISIONS	BY

LAKEPORT SHOPPING CENTER

1842 TODD RD
LAKEPORT, CA

PROPOSED MASTER SITE PLAN

consultant job#

master release date

project exe date	master drawn by
09.24.19	EJ

Filename AGC
—

Facility/Project

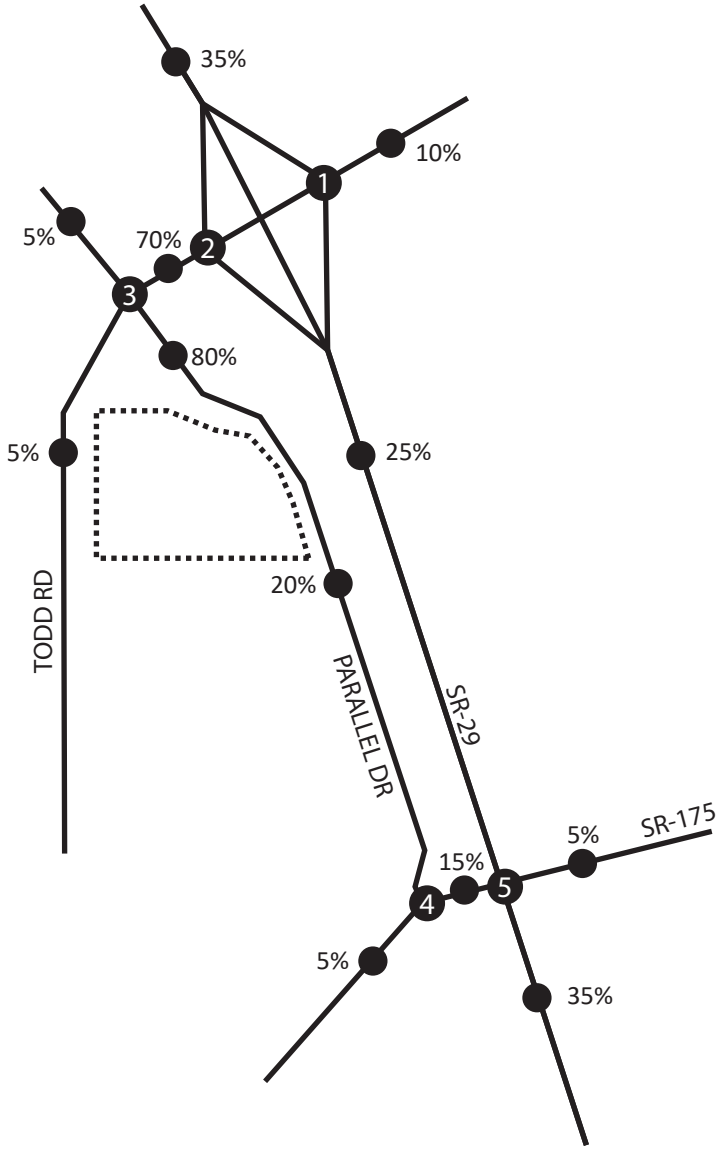
sheet name

CUP—1

Proposed Land Use[1]	Qty	Unit[2]	Daily Trips (ADTs)		AM Peak Hour					PM Peak Hour					Pass-By % Reduction		
			Rate	Volume	Rate	In:Out Split	Volume			Rate	In:Out Split	Volume					
							In	Out	Total			In	Out	Total	AM	PM	Daily
Parcel A																	
Gas Station w/ Convenience Market (945)	16.0	VFP	205.36	3,286	12.47	51:49	102	98	200	13.99	51:49	114	110	224	50%	45%	45%
Fast Food with Drive Thru (934)	3.50	TSF	470.95	1,648	40.19	51:49	72	69	141	32.67	52:48	59	55	114	35%	35%	35%
Parcel B																	
Fast Food with Drive Thru (934)	1.85	TSF	470.95	871	40.19	51:49	38	36	74	32.67	52:48	31	29	60	35%	35%	35%
Shopping Center (820)	1.85	TSF	37.75	70	0.94	62:38	1	1	2	3.81	48:52	3	4	7	10%	25%	10%
Parcel C																	
High Turnover (Sit Down) Restaurant (932)	5.40	TSF	112.18	606	9.94	55:45	30	24	54	9.77	62:38	33	20	53	20%	25%	20%
Parcel D																	
High Turnover (Sit Down) Restaurant (932)	3.00	TSF	112.18	337	9.94	55:45	17	14	30	9.77	62:38	18	11	29	20%	25%	20%
Hotel (310)	70.00	RM	8.36	585	0.47	59:41	19	14	33	0.60	51:49	21	21	42	--	--	--
Parcel F																	
Fast Food with Drive Thru (934)	2.80	TSF	470.95	1,319	40.19	51:49	58	55	113	32.67	52:48	47	44	91	35%	35%	35%
Parcel G																	
Shopping Center (820)	22.23	TSF	37.75	839	0.94	62:38	13	8	21	3.81	48:52	41	44	85	10%	25%	10%
Parcel H																	
High Turnover (Sit Down) Restaurant (932)	8.70	TSF	112.18	976	9.94	55:45	47	39	86	9.77	62:38	53	32	85	20%	25%	20%
Parcel I																	
Shopping Center (820)	5.20	TSF	37.75	196	0.94	62:38	3	2	5	3.81	48:52	10	10	20	10%	25%	10%
Fast Food with Drive Thru (934)	2.30	TSF	470.95	1,083	40.19	51:49	47	45	92	32.67	52:48	39	36	75	35%	35%	35%
Totals																	
Total				11,816			447	404	851			470	415	885			
Pass-By				-3,695			-146	-137	-284			-153	-137	-290			
Net Total				**8,121**			**300**	**267**	**567**			**317**	**278**	**595**			

1: Rates from ITE Trip Generation (10th Edition, 2017)

2: TSF = Thousand Square Feet; RM = Rooms, VFP = Vehicle Fueling Positions



XX% Percent Trip Distribution

Project Site

X Study Intersection Location

TJW ENGINEERING, INC.

Exhibit 1:
Projected Trip Distribution of Proposed Project

MEI-20-001 Lakeport Shopping Center Traffic Impact Analysis

Not to Scale

State of California
DEPARTMENT OF TRANSPORTATION

California State Transportation Agency

M e m o r a n d u m

Flex your power!
Be energy efficient!

To: CHARLIE FIELDER
JANA HOLLIFIELD
MATT BRADY
MARK SUCHANEK

Date: February 3, 2014

File: Growth Factors

From: BRAD METTAM
Deputy District Director,
Planning and Local Assistance

Subject: 2014 Growth Factors

Attached are the 2014 District 1 growth factor summary, the 2014 District Growth Factor Map, and a "Using D1 Growth Factors" tutorial.

Prior to 1984, Caltrans District 1 projected future traffic volumes based solely on historical growth. Future volumes were calculated using an annual percent increase that was derived from historical traffic volumes. We found that this method produced acceptable results in the short to mid-term, but due to compounding, long-range predictions (20 years or more) tended to be overestimated.

In 1984, in order to eliminate that long-range distortion noted above, we began calculating growth factors as a 20-year straight-line determinant. For example, a segment of highway with a growth factor of 1.4 is predicted to have a 40% increase in traffic over the next 20-years. Likewise, it is predicted to have a 20% increase over 10 years.

Historically, District staff has developed growth factors based on both projected travel trends and historical growth from two data sources—the "California Motor Vehicle Stock Travel and Fuel Forecast" (CMVSTAFF) and historical Average Vehicle Mile Traveled (AVMT) comparisons from "Traffic Volumes on the California State Highway System." Since CMVSTAFF was not available for the 2014 growth factor update, county growth factor targets were developed based on California Air Resources Board traffic growth projections and historic traffic growth data.

Our growth factors are applied over highway segments that were determined using observed conditions; these segments vary in length, but they are not longer than fifty miles. Traffic volumes over segments are based on a calculated weighted average of

volumes (Annual Average Daily Traffic) for the entire segment. While actual growth at the local level can vary considerably, we are looking at overall growth over the long-term. If more specific data or information are available for a particular location (actual counts, planned growth, etc.) it may be advisable to calculate a location-specific rate. However, for the purposes of facility design (20-year design-life) our generalized segment growth factors are appropriate. It should be noted that our growth factors forecast traffic growth only for the mainline (State Routes); local streets should be examined separately.

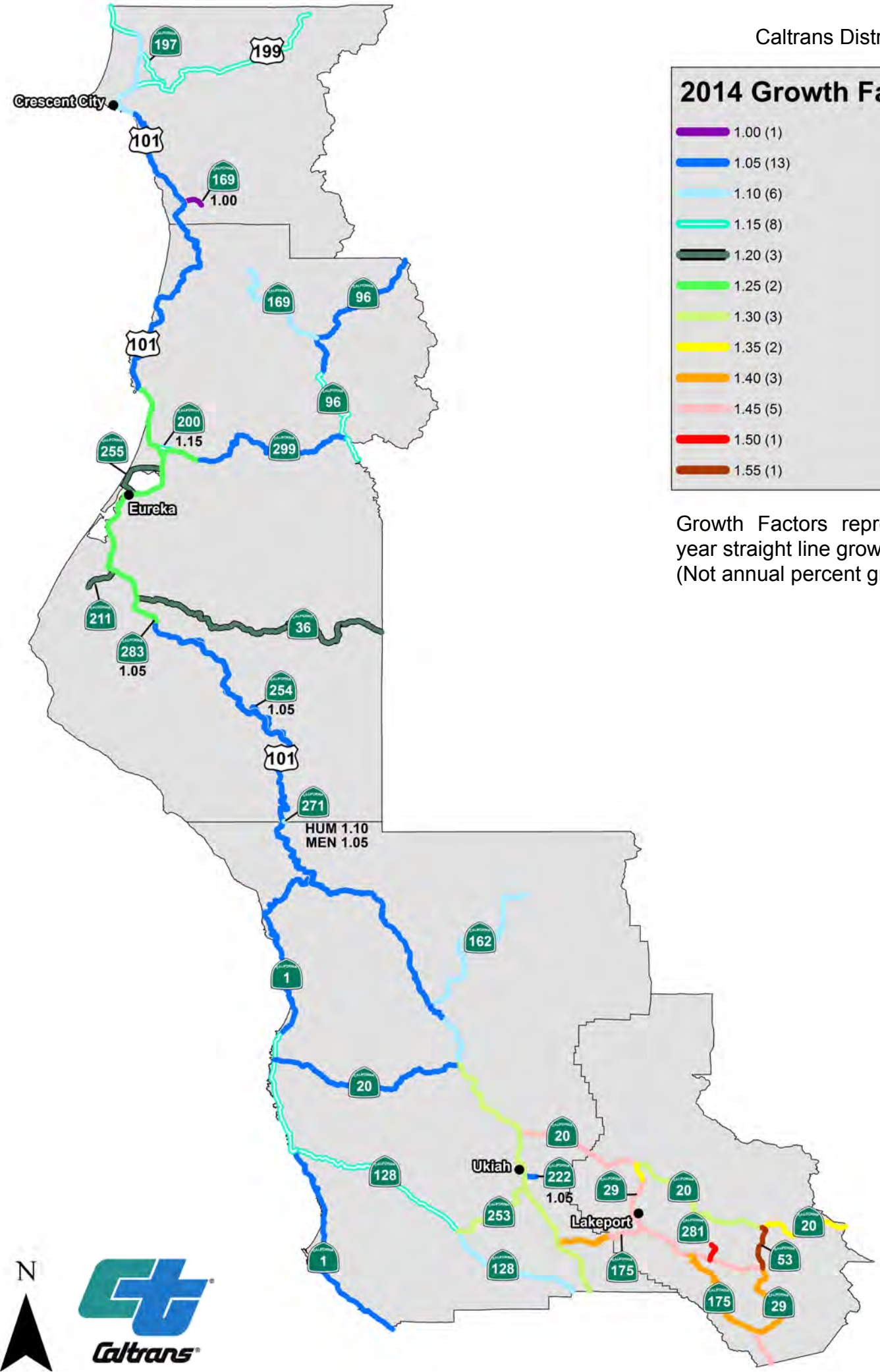
District planning staff reviews growth factors every two years, and typically revise them every two to four years. Growth factors were not updated for several years following 2006, since MVSTAFF data supported higher growth rates at a time when traffic counts were generally level or declining. The most recent MVSTAFF has been removed from the Division of Transportation Planning, Office of Transportation Forecasting and Analysis website, and they recommended using the use of the Air Resources Board EMFAC database as a substitute. Therefore, we based our 20-year District vehicle miles of travel target on ARB data. District staff would prefer to use county travel demand models to project traffic growth, or the MVSTAFF to develop growth factor targets, and we hope to do so in the future. However, neither of these data sources is currently supportable.

If you have any questions regarding the growth factors, please call Rex Jackman at (707) 445-6412 or Chris Dosch at (707) 441-4542.

Attachments:
2014 Growth Factor Summary
2014 Growth Factor Map
Using District 1 Growth Factors Tutorial

c: TROY ARSENEAU
DAVID MORGAN
JOHN CARSON
RALPH MARTINELLI
GARRY BANDUCCI
SANDRA ROSAS
STEVE HUGHES
SUSAN ZANCHI
ROYAL McCARTHY
REX JACKMAN

Caltrans District 1



Growth Factors represent a 20 year straight line growth pattern. (Not annual percent growth)

DISTRICT 1 - GROWTH FACTOR SUMMARY

20 YEAR GROWTH FACTORS

SEGMENT	2/2014 G.F.
MEN-1-0.00/40.27	1.05
MEN-1-40.27/64.86	1.15
MEN-1-64.86/105.57	1.05
MEN-20-0.00/33.16	1.05
MEN-20-33.22/44.11	1.45
LAK-20-0.00/8.34	1.45
LAK-20-8.34/31.62	1.30
LAK-20-31.62/46.48	1.35
LAK-29-0.00/5.81	1.45
LAK-29-5.81/20.31	1.40
LAK-29-20.31/48.40	1.45
LAK-29-48.40/52.54	1.35
HUM-36-0.00/45.68	1.20
LAK-53-0.00/7.45	1.55
HUM-96-0.00/16.00	1.15
HUM-96-16.00/44.98	1.05
MEN-101-0.10/47.27	1.30
MEN-101-47.27/55.90	1.10
MEN-101-55.90/104.15	1.05
HUM-101-0.00/51.84	1.05
HUM-101-51.84/100.71	1.25
HUM-101-100.71/137.14	1.05
DN-101-0.00/23.85	1.05
DN-101-23.85/39.98	1.10
DN-101-39.98/46.49	1.15
MEN-128-0.00/29.58	1.15
MEN-128-29.58/50.90	1.10
MEN-162-0.00/34.05	1.10
DN-169-0.0/3.52	1.00
HUM-169-13.20/33.84	1.10
MEN-175-0.00/9.85	1.40
LAK-175-0.00/8.19	1.45
LAK-175-8.25/28.04	1.40
DN-197-0.00/7.08	1.15
DN-199-0.51/36.41	1.15
HUM-200-0.00/2.68	1.15
HUM-211-73.20/79.16	1.20
MEN-222-0.00/2.15	1.05
MEN-253-0.00/17.18	1.30
HUM-254-0.00/46.53	1.05
HUM-255-0.0/8.80	1.20
MEN-271-0.0/22.72	1.05
HUM-271-0.00/0.31	1.10
LAK-281-14.00/17.00	1.50
HUM-283-0.00/0.36	1.05
HUM-299-0.00/5.93	1.25
HUM-299-5.93/38.83	1.05
HUM-299-38.83/43.04	1.15
DISTRICT GROWTH FACTOR (Weighted Average)	1.24

Using District 1 Growth Factors

- To project volumes **20 years** into the future, multiply the base year traffic volume by the growth factor (GF).

  Formula: (GF)*(Base Year Volume) = Projected Volume

  Example: The base year volume (2012) is 1500 AADT. The 20-year growth factor for that segment of highway is 1.3. What is the 2032 volume?

  (1.3)*(1500) = 1950 The projected 2032 traffic volume (AADT) for this segment is 1950.

- To project volumes **Less than or greater than 20 years** into the future, use the following formula:

  Formula: $[1 + \frac{(\mathrm{GF}-1)*(\#\text{ of years into future})}{20}] * (\text{starting volume}) = \text{Projected Volume}$

  Example: The Base year volume in 2012 is 700 AADT. The 20- year growth factor is 1.4.

  A) What is the volume in 27 years?

  $\left[1 + \left(\frac{(1.4-1)*(27)}{20}\right)\right] * (700) = 1078$ The projected volume in 2039 is 1078.

  B) What is the volume in 7 years?

  $\left[1 + \left(\frac{(1.4-1)*(7)}{20}\right)\right] * (700) = 798$ The projected volume in 2019 is 798.

APPENDIX B
TRAFFIC COUNTS

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Lakeport
N/S: SR-29 NB Ramps
E/W: Lakeport Boulevard
Weather: Clear

File Name : 01_LKT_SR29 NB_Lakeport_AM
Site Code : 99920174
Start Date : 3/12/2020
Page No : 1

Groups Printed- Total Volume

	SR-29 Northbound On Ramp Southbound				Lakeport Boulevard Westbound				SR-29 Northbound Off Ramp Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	37	11	48	10	0	35	45	17	39	0	56	149
07:15 AM	0	0	0	0	0	39	15	54	6	0	31	37	12	36	0	48	139
07:30 AM	0	0	0	0	0	42	23	65	14	0	40	54	15	55	0	70	189
07:45 AM	0	0	0	0	0	44	17	61	15	0	69	84	24	81	0	105	250
Total	0	0	0	0	0	162	66	228	45	0	175	220	68	211	0	279	727
08:00 AM	0	0	0	0	0	66	26	92	11	0	57	68	14	69	0	83	243
08:15 AM	0	0	0	0	0	55	32	87	11	0	64	75	18	56	0	74	236
08:30 AM	0	0	0	0	0	50	27	77	11	0	58	69	14	66	0	80	226
08:45 AM	0	0	0	0	0	35	22	57	11	0	41	52	18	80	0	98	207
Total	0	0	0	0	0	206	107	313	44	0	220	264	64	271	0	335	912
Grand Total	0	0	0	0	0	368	173	541	89	0	395	484	132	482	0	614	1639
Apprch %	0	0	0		0	68	32		18.4	0	81.6		21.5	78.5	0		
Total %	0	0	0	0	0	22.5	10.6	33	5.4	0	24.1	29.5	8.1	29.4	0	37.5	

	SR-29 Northbound On Ramp Southbound				Lakeport Boulevard Westbound				SR-29 Northbound Off Ramp Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	44	17	61	15	0	69	84	24	81	0	105	250
08:00 AM	0	0	0	0	0	66	26	92	11	0	57	68	14	69	0	83	243
08:15 AM	0	0	0	0	0	55	32	87	11	0	64	75	18	56	0	74	236
08:30 AM	0	0	0	0	0	50	27	77	11	0	58	69	14	66	0	80	226
Total Volume	0	0	0	0	0	215	102	317	48	0	248	296	70	272	0	342	955
% App. Total	0	0	0		0	67.8	32.2		16.2	0	83.8		20.5	79.5	0		
PHF	.000	.000	.000	.000	.000	.814	.797	.861	.800	.000	.899	.881	.729	.840	.000	.814	.955

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City of Lakeport
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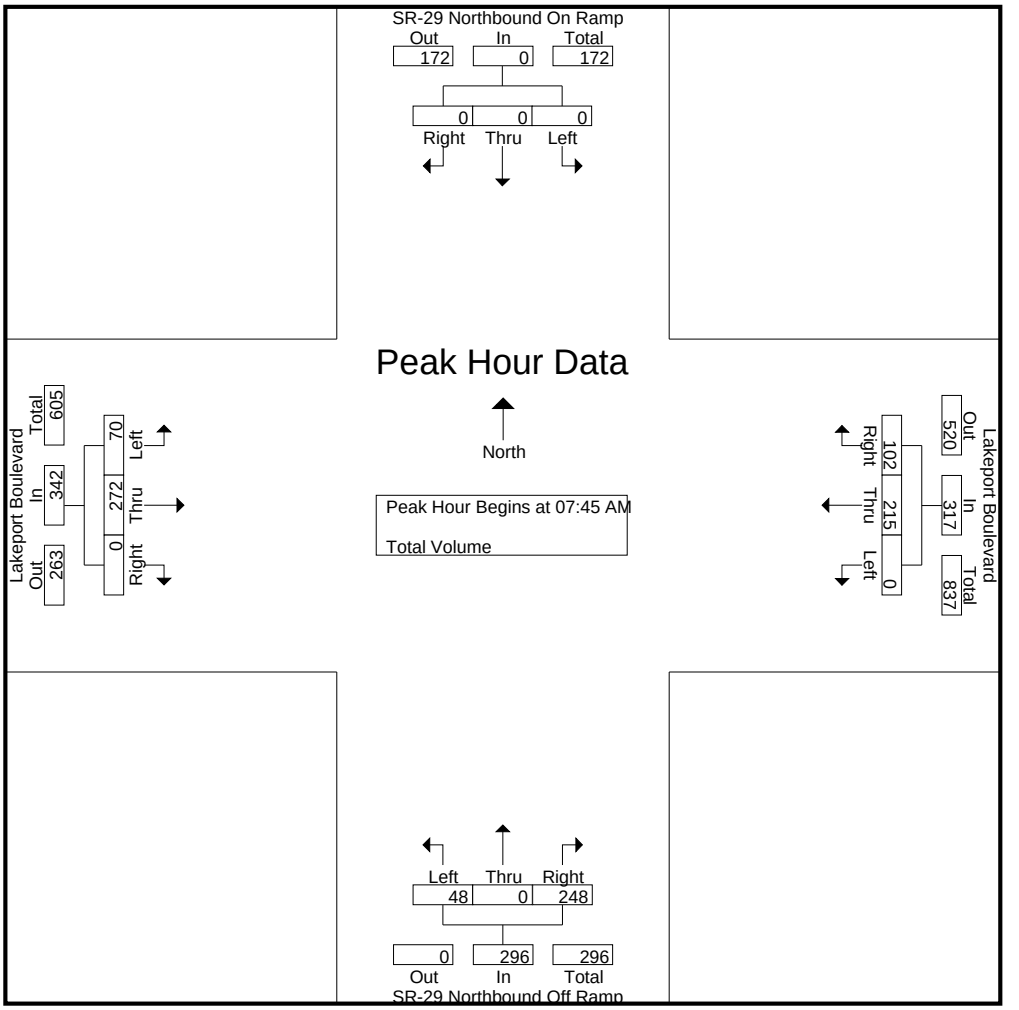

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	44	17	61	15	0	69	84	24	81	0	105
+15 mins.	0	0	0	0	0	66	26	92	11	0	57	68	14	69	0	83
+30 mins.	0	0	0	0	0	55	32	87	11	0	64	75	18	56	0	74
+45 mins.	0	0	0	0	0	50	27	77	11	0	58	69	14	66	0	80
Total Volume	0	0	0	0	0	215	102	317	48	0	248	296	70	272	0	342
% App. Total	0	0	0		0	67.8	32.2		16.2	0	83.8		20.5	79.5	0	
PHF	.000	.000	.000	.000	.000	.814	.797	.861	.800	.000	.899	.881	.729	.840	.000	.814

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City of Lakeport
N/S: SR-29 NB Ramps
E/W: Lakeport Boulevard
Weather: Clear

File Name : 01_LKT_SR29 NB_Lakeport_PM
Site Code : 99920174
Start Date : 3/12/2020
Page No : 1

Groups Printed- Total Volume

	SR-29 Northbound On Ramp Southbound				Lakeport Boulevard Westbound				SR-29 Northbound Off Ramp Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	92	70	162	8	0	37	45	23	95	0	118	325
04:15 PM	0	0	0	0	0	82	39	121	8	1	51	60	29	76	0	105	286
04:30 PM	0	0	0	0	0	103	57	160	8	1	49	58	39	79	0	118	336
04:45 PM	0	0	0	0	0	80	48	128	4	0	33	37	29	69	0	98	263
Total	0	0	0	0	0	357	214	571	28	2	170	200	120	319	0	439	1210
05:00 PM	0	0	0	0	0	144	69	213	7	0	28	35	37	72	0	109	357
05:15 PM	0	0	0	0	0	122	51	173	8	0	34	42	30	59	0	89	304
05:30 PM	0	0	0	0	0	95	43	138	6	0	36	42	39	66	0	105	285
05:45 PM	0	0	0	0	0	69	38	107	7	1	37	45	24	55	0	79	231
Total	0	0	0	0	0	430	201	631	28	1	135	164	130	252	0	382	1177
Grand Total	0	0	0	0	0	787	415	1202	56	3	305	364	250	571	0	821	2387
Apprch %	0	0	0		0	65.5	34.5		15.4	0.8	83.8		30.5	69.5	0		
Total %	0	0	0	0	0	33	17.4	50.4	2.3	0.1	12.8	15.2	10.5	23.9	0	34.4	

	SR-29 Northbound On Ramp Southbound				Lakeport Boulevard Westbound				SR-29 Northbound Off Ramp Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	103	57	160	8	1	49	58	39	79	0	118	336
04:45 PM	0	0	0	0	0	80	48	128	4	0	33	37	29	69	0	98	263
05:00 PM	0	0	0	0	0	144	69	213	7	0	28	35	37	72	0	109	357
05:15 PM	0	0	0	0	0	122	51	173	8	0	34	42	30	59	0	89	304
Total Volume	0	0	0	0	0	449	225	674	27	1	144	172	135	279	0	414	1260
% App. Total	0	0	0		0	66.6	33.4		15.7	0.6	83.7		32.6	67.4	0		
PHF	.000	.000	.000	.000	.000	.780	.815	.791	.844	.250	.735	.741	.865	.883	.000	.877	.882

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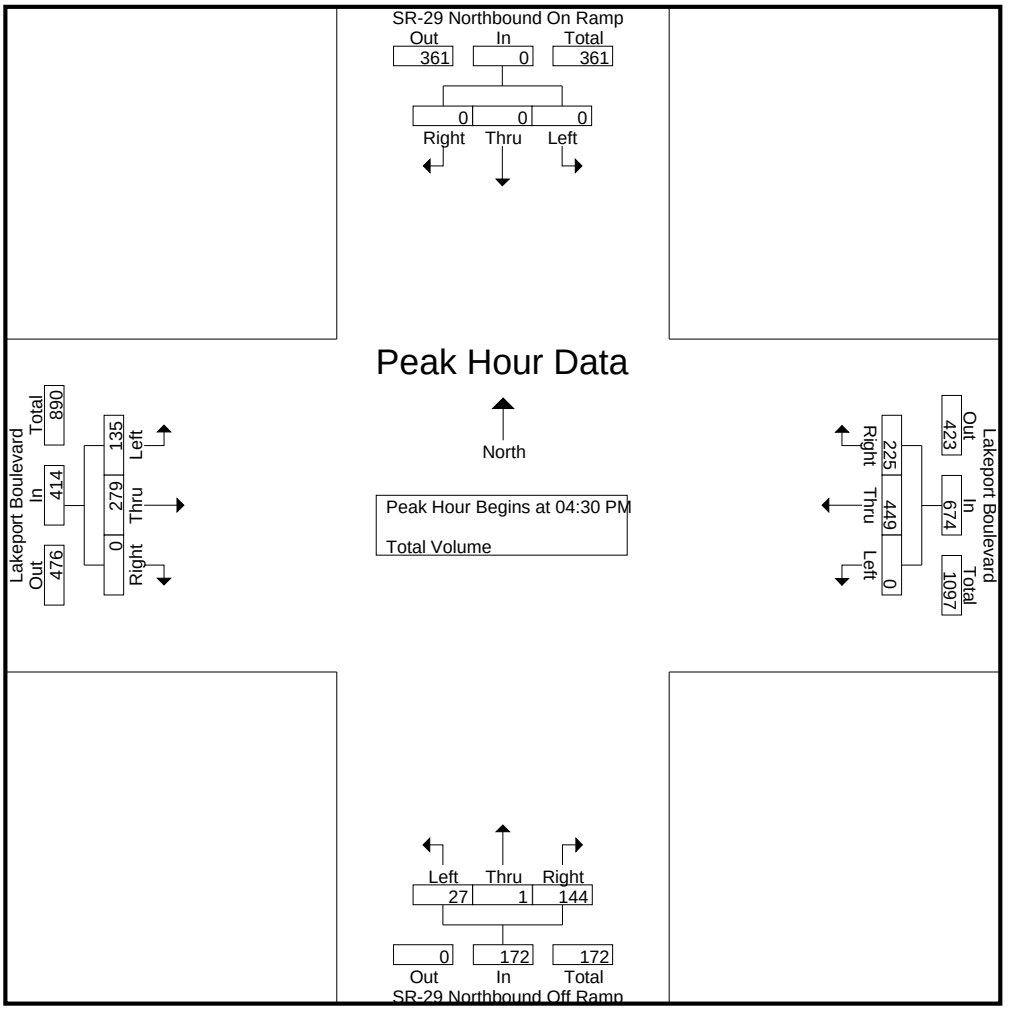
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:30 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	103	57	160	8	0	37	45	23	95	0	118
+15 mins.	0	0	0	0	0	80	48	128	8	1	51	60	29	76	0	105
+30 mins.	0	0	0	0	0	144	69	213	8	1	49	58	39	79	0	118
+45 mins.	0	0	0	0	0	122	51	173	4	0	33	37	29	69	0	98
Total Volume	0	0	0	0	0	449	225	674	28	2	170	200	120	319	0	439
% App. Total	0	0	0		0	66.6	33.4		14	1	85		27.3	72.7	0	
PHF	.000	.000	.000	.000	.000	.780	.815	.791	.875	.500	.833	.833	.769	.839	.000	.930

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City of Lakeport
N/S: SR-29 SB Ramps
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Weather: Clear

File Name : 02_LKT_SR29 SB_Lakeport_AM
Site Code : 99920174
Start Date : 3/12/2020
Page No : 1

Groups Printed- Total Volume

	SR-29 Southbound Off Ramp Southbound				Lakeport Boulevard Westbound				SR-29 Southbound On Ramp Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	23	0	15	38	23	24	0	47	0	0	0	0	0	30	4	34	119
07:15 AM	22	0	19	41	22	22	0	44	0	0	0	0	0	27	5	32	117
07:30 AM	30	0	21	51	21	35	0	56	0	0	0	0	0	41	7	48	155
07:45 AM	43	0	38	81	21	44	0	65	0	0	0	0	0	58	7	65	211
Total	118	0	93	211	87	125	0	212	0	0	0	0	0	156	23	179	602
08:00 AM	40	0	28	68	31	45	0	76	0	0	0	0	0	42	7	49	193
08:15 AM	37	0	43	80	25	39	0	64	0	0	0	0	0	38	9	47	191
08:30 AM	41	0	19	60	22	44	0	66	0	0	0	0	0	44	8	52	178
08:45 AM	46	0	40	86	20	24	0	44	0	0	0	0	0	49	10	59	189
Total	164	0	130	294	98	152	0	250	0	0	0	0	0	173	34	207	751
Grand Total	282	0	223	505	185	277	0	462	0	0	0	0	0	329	57	386	1353
Apprch %	55.8	0	44.2		40	60	0		0	0	0		0	85.2	14.8		
Total %	20.8	0	16.5	37.3	13.7	20.5	0	34.1	0	0	0	0	0	24.3	4.2	28.5	

	SR-29 Southbound Off Ramp Southbound				Lakeport Boulevard Westbound				SR-29 Southbound On Ramp Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	43	0	38	81	21	44	0	65	0	0	0	0	0	58	7	65	211
08:00 AM	40	0	28	68	31	45	0	76	0	0	0	0	0	42	7	49	193
08:15 AM	37	0	43	80	25	39	0	64	0	0	0	0	0	38	9	47	191
08:30 AM	41	0	19	60	22	44	0	66	0	0	0	0	0	44	8	52	178
Total Volume	161	0	128	289	99	172	0	271	0	0	0	0	0	182	31	213	773
% App. Total	55.7	0	44.3		36.5	63.5	0		0	0	0		0	85.4	14.6		
PHF	.936	.000	.744	.892	.798	.956	.000	.891	.000	.000	.000	.000	.000	.784	.861	.819	.916

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City of Lakeport
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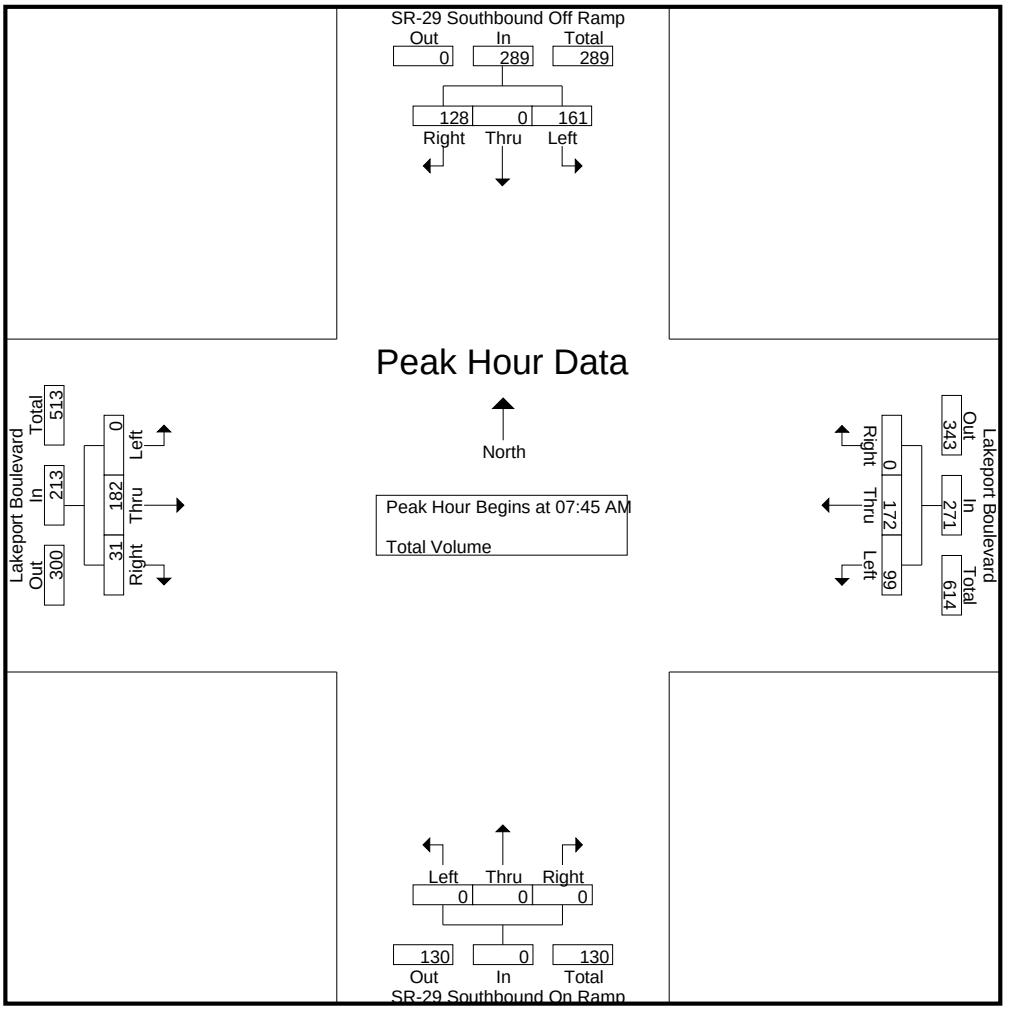

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				07:45 AM				07:00 AM				07:45 AM			
+0 mins.	40	0	28	68	21	44	0	65	0	0	0	0	0	58	7	65
+15 mins.	37	0	43	80	31	45	0	76	0	0	0	0	0	42	7	49
+30 mins.	41	0	19	60	25	39	0	64	0	0	0	0	0	38	9	47
+45 mins.	46	0	40	86	22	44	0	66	0	0	0	0	0	44	8	52
Total Volume	164	0	130	294	99	172	0	271	0	0	0	0	0	182	31	213
% App. Total	55.8	0	44.2		36.5	63.5	0		0	0	0		0	85.4	14.6	
PHF	.891	.000	.756	.855	.798	.956	.000	.891	.000	.000	.000	.000	.000	.784	.861	.819

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City of Lakeport
N/S: SR-29 SB Ramps
E/W: Lakeport Boulevard
Weather: Clear

File Name : 02_LKT_SR29 SB_Lakeport_PM
Site Code : 99920174
Start Date : 3/12/2020
Page No : 1

Groups Printed- Total Volume

	SR-29 Southbound Off Ramp Southbound				Lakeport Boulevard Westbound				SR-29 Southbound On Ramp Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	46	0	21	67	60	49	0	109	0	0	0	0	0	72	23	95	271
04:15 PM	40	0	28	68	52	41	0	93	0	0	0	0	0	63	26	89	250
04:30 PM	37	0	34	71	54	40	0	94	0	0	0	0	0	68	13	81	246
04:45 PM	42	0	30	72	70	33	0	103	0	0	0	0	0	73	19	92	267
Total	165	0	113	278	236	163	0	399	0	0	0	0	0	276	81	357	1034
05:00 PM	37	0	37	74	94	73	0	167	0	0	0	0	0	83	25	108	349
05:15 PM	22	1	32	55	58	53	0	111	0	0	0	0	0	57	19	76	242
05:30 PM	28	0	21	49	63	38	0	101	0	0	0	0	0	76	11	87	237
05:45 PM	34	0	32	66	41	36	0	77	0	0	0	0	0	44	19	63	206
Total	121	1	122	244	256	200	0	456	0	0	0	0	0	260	74	334	1034
Grand Total	286	1	235	522	492	363	0	855	0	0	0	0	0	536	155	691	2068
Apprch %	54.8	0.2	45		57.5	42.5	0		0	0	0		0	77.6	22.4		
Total %	13.8	0	11.4	25.2	23.8	17.6	0	41.3	0	0	0	0	0	25.9	7.5	33.4	

	SR-29 Southbound Off Ramp Southbound				Lakeport Boulevard Westbound				SR-29 Southbound On Ramp Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	40	0	28	68	52	41	0	93	0	0	0	0	0	63	26	89	250
04:30 PM	37	0	34	71	54	40	0	94	0	0	0	0	0	68	13	81	246
04:45 PM	42	0	30	72	70	33	0	103	0	0	0	0	0	73	19	92	267
05:00 PM	37	0	37	74	94	73	0	167	0	0	0	0	0	83	25	108	349
Total Volume	156	0	129	285	270	187	0	457	0	0	0	0	0	287	83	370	1112
% App. Total	54.7	0	45.3		59.1	40.9	0		0	0	0		0	77.6	22.4		
PHF	.929	.000	.872	.963	.718	.640	.000	.684	.000	.000	.000	.000	.000	.864	.798	.856	.797

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City of Lakeport
N/S: SR-29 SB Ramps
E/W: Lakeport Boulevard
Weather: Clear

File Name : 02_LKT_SR29 SB_Lakeport_PM
Site Code : 99920174
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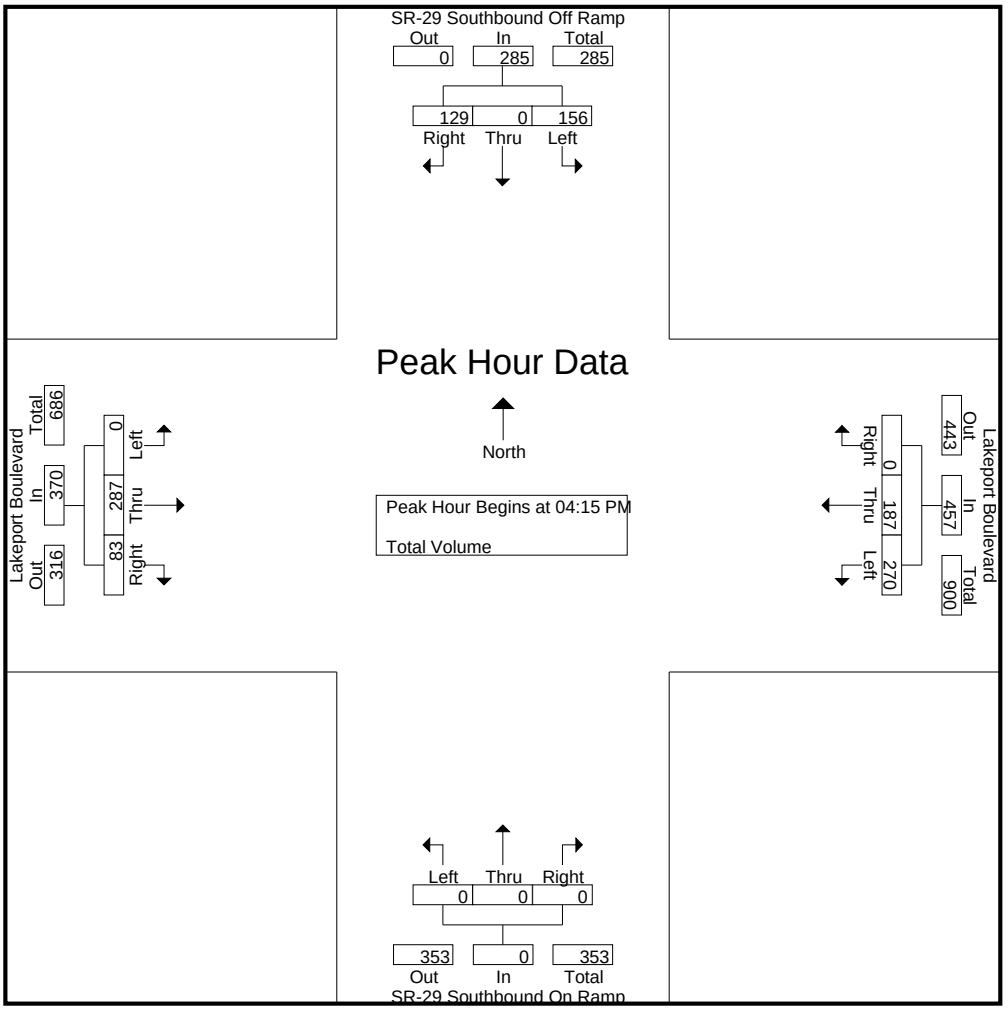

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:45 PM				04:00 PM				04:15 PM			
+0 mins.	40	0	28	68	70	33	0	103	0	0	0	0	0	63	26	89
+15 mins.	37	0	34	71	94	73	0	167	0	0	0	0	0	68	13	81
+30 mins.	42	0	30	72	58	53	0	111	0	0	0	0	0	73	19	92
+45 mins.	37	0	37	74	63	38	0	101	0	0	0	0	0	83	25	108
Total Volume	156	0	129	285	285	197	0	482	0	0	0	0	0	287	83	370
% App. Total	54.7	0	45.3		59.1	40.9	0		0	0	0		0	77.6	22.4	
PHF	.929	.000	.872	.963	.758	.675	.000	.722	.000	.000	.000	.000	.000	.864	.798	.856

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City of Lakeport
N/S: Parallel Drive
E/W: Lakeport Boulevard
Weather: Clear

File Name : 03_LKT_Parallel_Lakeport_AM
Site Code : 99920174
Start Date : 3/12/2020
Page No : 1

Groups Printed- Total Volume

	Parallel Drive Southbound				Lakeport Boulevard Westbound				Parallel Drive Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	19	2	0	21	1	4	8	13	0	0	2	2	1	7	1	9	45
07:15 AM	8	3	1	12	3	2	14	19	0	3	9	12	3	1	1	5	48
07:30 AM	15	2	0	17	9	4	25	38	1	4	7	12	0	6	1	7	74
07:45 AM	21	5	0	26	6	3	46	55	1	10	14	25	1	7	1	9	115
Total	63	12	1	76	19	13	93	125	2	17	32	51	5	21	4	30	282
08:00 AM	26	3	0	29	9	4	36	49	1	8	4	13	0	6	0	6	97
08:15 AM	18	3	0	21	9	4	44	57	0	6	7	13	0	6	2	8	99
08:30 AM	21	3	0	24	8	6	24	38	2	8	11	21	0	7	2	9	92
08:45 AM	27	5	1	33	15	4	29	48	1	5	6	12	0	1	2	3	96
Total	92	14	1	107	41	18	133	192	4	27	28	59	0	20	6	26	384
Grand Total	155	26	2	183	60	31	226	317	6	44	60	110	5	41	10	56	666
Apprch %	84.7	14.2	1.1		18.9	9.8	71.3		5.5	40	54.5		8.9	73.2	17.9		
Total %	23.3	3.9	0.3	27.5	9	4.7	33.9	47.6	0.9	6.6	9	16.5	0.8	6.2	1.5	8.4	

	Parallel Drive Southbound				Lakeport Boulevard Westbound				Parallel Drive Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	21	5	0	26	6	3	46	55	1	10	14	25	1	7	1	9	115
08:00 AM	26	3	0	29	9	4	36	49	1	8	4	13	0	6	0	6	97
08:15 AM	18	3	0	21	9	4	44	57	0	6	7	13	0	6	2	8	99
08:30 AM	21	3	0	24	8	6	24	38	2	8	11	21	0	7	2	9	92
Total Volume	86	14	0	100	32	17	150	199	4	32	36	72	1	26	5	32	403
% App. Total	86	14	0		16.1	8.5	75.4		5.6	44.4	50		3.1	81.2	15.6		
PHF	.827	.700	.000	.862	.889	.708	.815	.873	.500	.800	.643	.720	.250	.929	.625	.889	.876

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City of Lakeport
N/S: Parallel Drive
E/W: Lakeport Boulevard
Weather: Clear

File Name : 03_LKT_Parallel_Lakeport_AM
Site Code : 99920174
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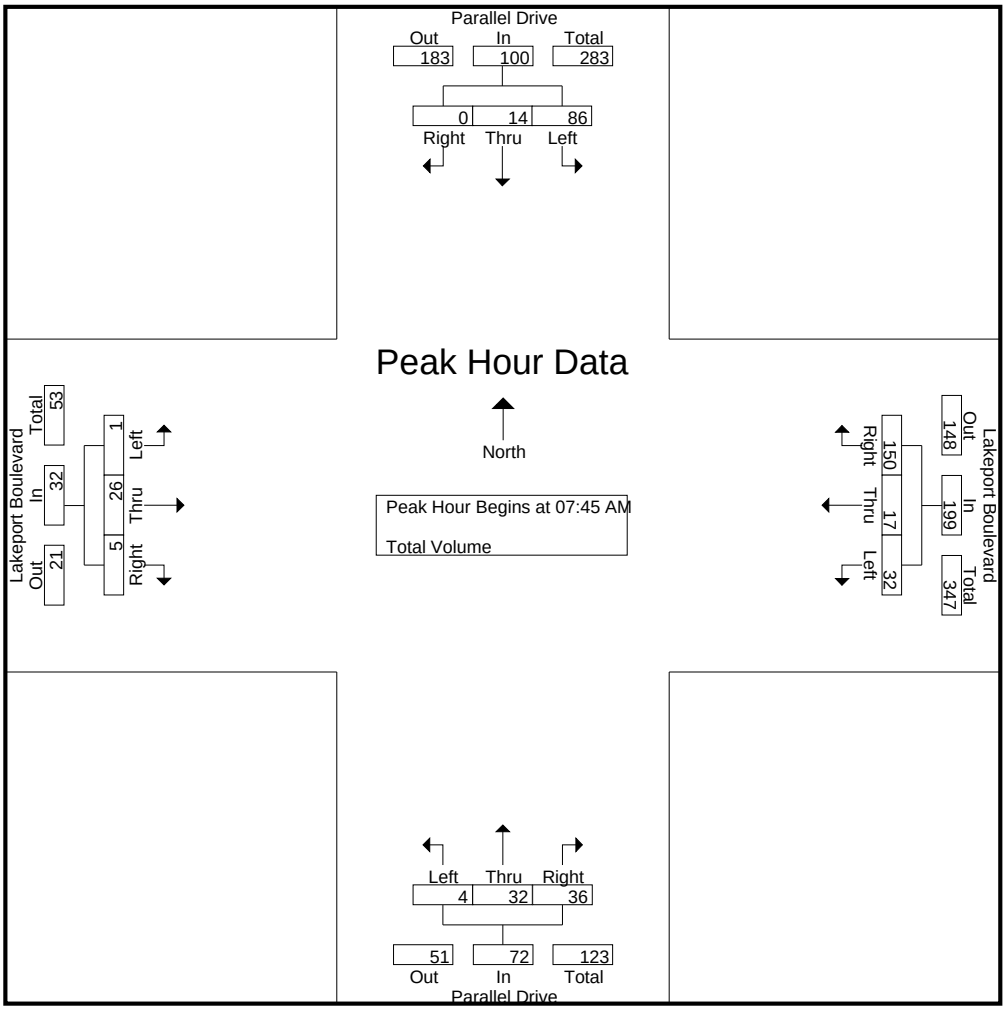

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				07:30 AM				07:45 AM				07:45 AM			
+0 mins.	26	3	0	29	9	4	25	38	1	10	14	25	1	7	1	9
+15 mins.	18	3	0	21	6	3	46	55	1	8	4	13	0	6	0	6
+30 mins.	21	3	0	24	9	4	36	49	0	6	7	13	0	6	2	8
+45 mins.	27	5	1	33	9	4	44	57	2	8	11	21	0	7	2	9
Total Volume	92	14	1	107	33	15	151	199	4	32	36	72	1	26	5	32
% App. Total	86	13.1	0.9		16.6	7.5	75.9		5.6	44.4	50		3.1	81.2	15.6	
PHF	.852	.700	.250	.811	.917	.938	.821	.873	.500	.800	.643	.720	.250	.929	.625	.889

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City of Lakeport
N/S: Parallel Drive
E/W: Lakeport Boulevard
Weather: Clear

File Name : 03_LKT_Parallel_Lakeport_PM
Site Code : 99920174
Start Date : 3/12/2020
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Groups Printed- Total Volume

	Parallel Drive Southbound				Lakeport Boulevard Westbound				Parallel Drive Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	42	9	3	54	20	15	26	61	1	2	18	21	2	15	2	19	155
04:15 PM	46	9	1	56	10	11	29	50	1	5	15	21	1	15	1	17	144
04:30 PM	46	12	5	63	11	21	26	58	1	2	19	22	0	10	2	12	155
04:45 PM	44	7	3	54	16	15	22	53	1	7	14	22	0	16	2	18	147
Total	178	37	12	227	57	62	103	222	4	16	66	86	3	56	7	66	601
05:00 PM	62	14	1	77	15	19	33	67	0	3	19	22	0	8	1	9	175
05:15 PM	51	7	3	61	12	17	26	55	1	2	20	23	0	12	2	14	153
05:30 PM	33	4	3	40	6	12	15	33	1	2	8	11	0	10	1	11	95
05:45 PM	17	7	3	27	13	13	21	47	0	4	14	18	0	6	1	7	99
Total	163	32	10	205	46	61	95	202	2	11	61	74	0	36	5	41	522
Grand Total	341	69	22	432	103	123	198	424	6	27	127	160	3	92	12	107	1123
Apprch %	78.9	16	5.1		24.3	29	46.7		3.8	16.9	79.4		2.8	86	11.2		
Total %	30.4	6.1	2	38.5	9.2	11	17.6	37.8	0.5	2.4	11.3	14.2	0.3	8.2	1.1	9.5	

	Parallel Drive Southbound				Lakeport Boulevard Westbound				Parallel Drive Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	46	12	5	63	11	21	26	58	1	2	19	22	0	10	2	12	155
04:45 PM	44	7	3	54	16	15	22	53	1	7	14	22	0	16	2	18	147
05:00 PM	62	14	1	77	15	19	33	67	0	3	19	22	0	8	1	9	175
05:15 PM	51	7	3	61	12	17	26	55	1	2	20	23	0	12	2	14	153
Total Volume	203	40	12	255	54	72	107	233	3	14	72	89	0	46	7	53	630
% App. Total	79.6	15.7	4.7		23.2	30.9	45.9		3.4	15.7	80.9		0	86.8	13.2		
PHF	.819	.714	.600	.828	.844	.857	.811	.869	.750	.500	.900	.967	.000	.719	.875	.736	.900

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City of Lakeport
N/S: Parallel Drive
E/W: Lakeport Boulevard
Weather: Clear

File Name : 03_LKT_Parallel_Lakeport_PM
Site Code : 99920174
Start Date : 3/12/2020
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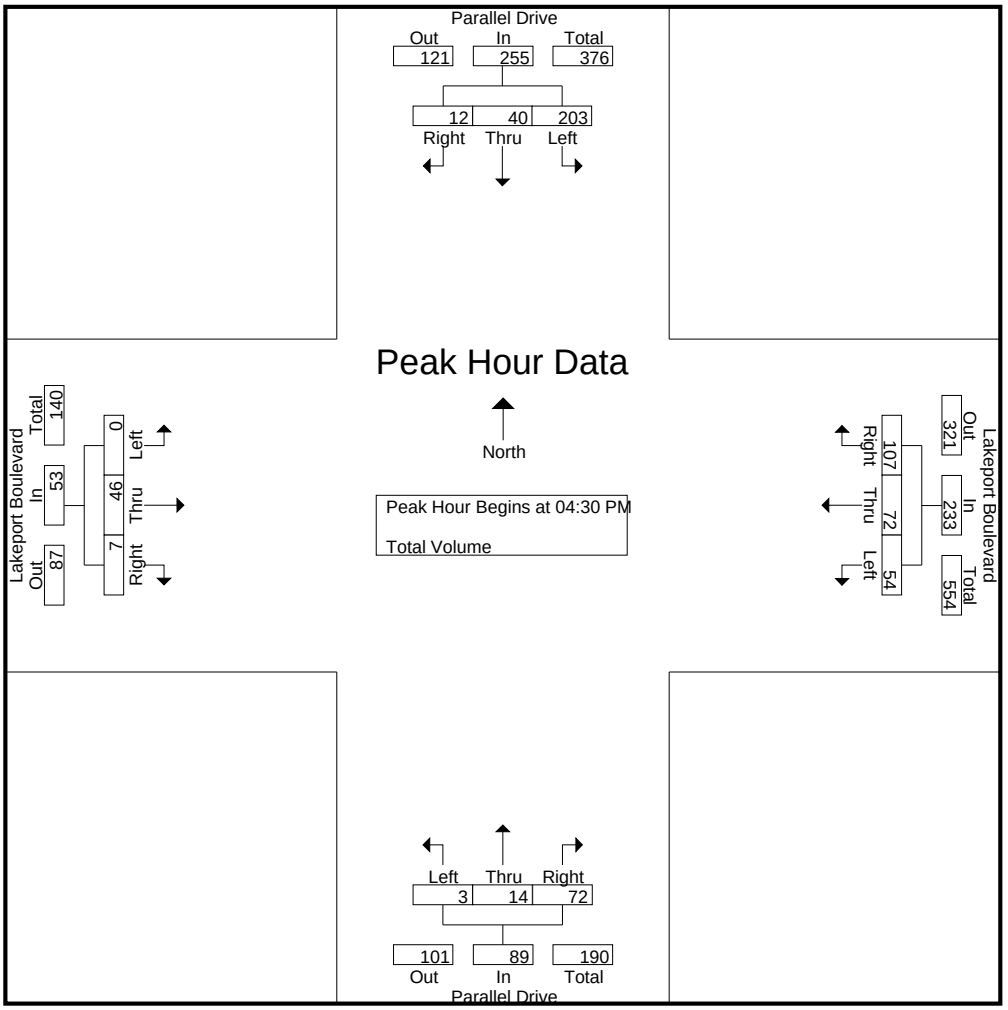

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:00 PM			
+0 mins.	46	12	5	63	11	21	26	58	1	2	19	22	2	15	2	19
+15 mins.	44	7	3	54	16	15	22	53	1	7	14	22	1	15	1	17
+30 mins.	62	14	1	77	15	19	33	67	0	3	19	22	0	10	2	12
+45 mins.	51	7	3	61	12	17	26	55	1	2	20	23	0	16	2	18
Total Volume	203	40	12	255	54	72	107	233	3	14	72	89	3	56	7	66
% App. Total	79.6	15.7	4.7		23.2	30.9	45.9		3.4	15.7	80.9		4.5	84.8	10.6	
PHF	.819	.714	.600	.828	.844	.857	.811	.869	.750	.500	.900	.967	.375	.875	.875	.868

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County of Lake
N/S: Parallel Drive
E/W: SR-175 / Hopland Road
Weather: Clear

File Name : 04_CLE_Parallel_SR175_AM
Site Code : 99920174
Start Date : 3/12/2020
Page No : 1

Groups Printed- Total Volume

	Parallel Drive Southbound			SR-175 / Hopland Road Westbound			SR-175 / Hopland Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	3	3	6	8	4	12	1	3	4	22
07:15 AM	3	2	5	15	9	24	2	9	11	40
07:30 AM	5	0	5	7	11	18	3	9	12	35
07:45 AM	5	1	6	11	24	35	7	18	25	66
Total	16	6	22	41	48	89	13	39	52	163
08:00 AM	2	1	3	29	13	42	7	11	18	63
08:15 AM	8	6	14	12	16	28	4	13	17	59
08:30 AM	7	1	8	13	16	29	0	13	13	50
08:45 AM	9	2	11	18	23	41	3	17	20	72
Total	26	10	36	72	68	140	14	54	68	244
Grand Total	42	16	58	113	116	229	27	93	120	407
Apprch %	72.4	27.6		49.3	50.7		22.5	77.5		
Total %	10.3	3.9	14.3	27.8	28.5	56.3	6.6	22.9	29.5	

	Parallel Drive Southbound			SR-175 / Hopland Road Westbound			SR-175 / Hopland Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	2	1	3	29	13	42	7	11	18	63
08:15 AM	8	6	14	12	16	28	4	13	17	59
08:30 AM	7	1	8	13	16	29	0	13	13	50
08:45 AM	9	2	11	18	23	41	3	17	20	72
Total Volume	26	10	36	72	68	140	14	54	68	244
% App. Total	72.2	27.8		51.4	48.6		20.6	79.4		
PHF	.722	.417	.643	.621	.739	.833	.500	.794	.850	.847

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County of Lake
N/S: Parallel Drive
E/W: SR-175 / Hopland Road
Weather: Clear

File Name : 04_CLE_Parallel_SR175_AM
Site Code : 99920174
Start Date : 3/12/2020
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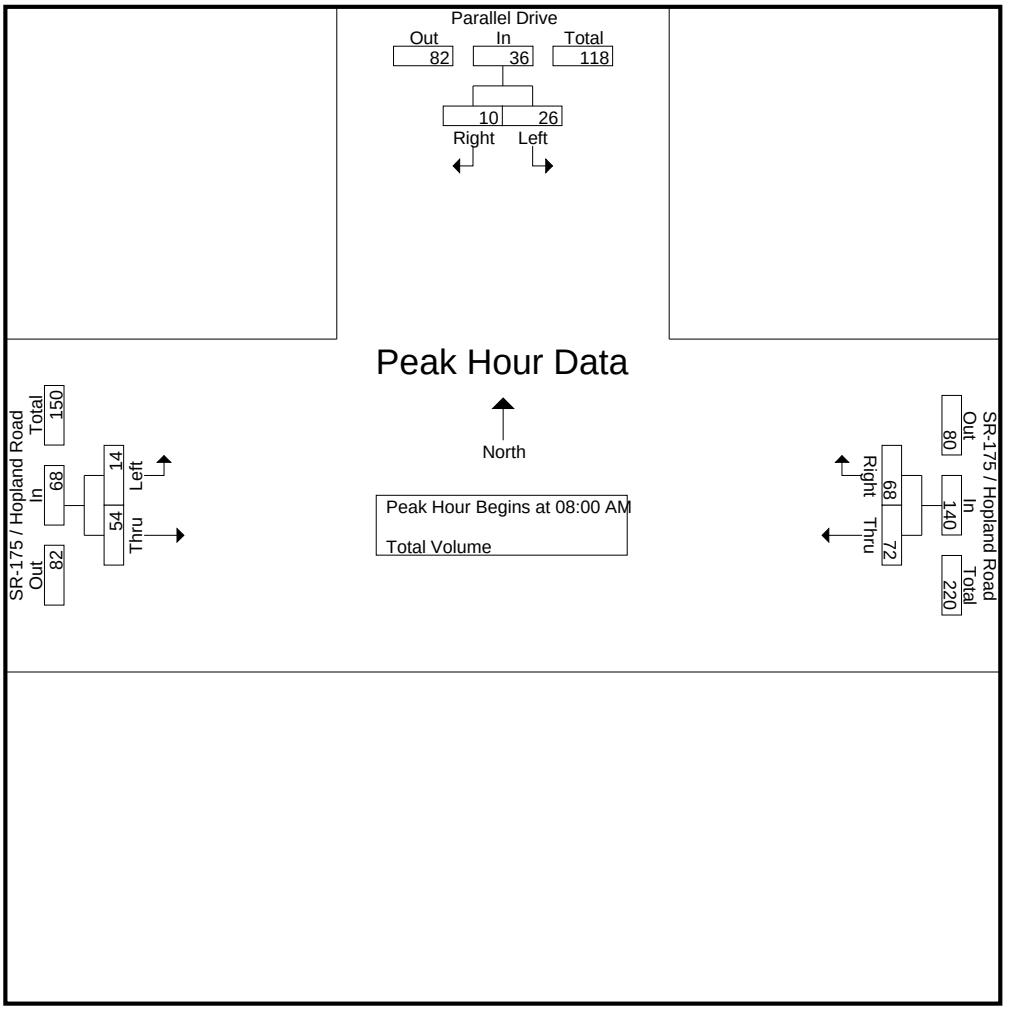

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM			08:00 AM			07:45 AM		
+0 mins.	2	1	3	29	13	42	7	18	25
+15 mins.	8	6	14	12	16	28	7	11	18
+30 mins.	7	1	8	13	16	29	4	13	17
+45 mins.	9	2	11	18	23	41	0	13	13
Total Volume	26	10	36	72	68	140	18	55	73
% App. Total	72.2	27.8		51.4	48.6		24.7	75.3	
PHF	.722	.417	.643	.621	.739	.833	.643	.764	.730

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County of Lake
N/S: Parallel Drive
E/W: SR-175 / Hopland Road
Weather: Clear

File Name : 04_CLE_Parallel_SR175_PM
Site Code : 99920174
Start Date : 3/12/2020
Page No : 1

Groups Printed- Total Volume

	Parallel Drive Southbound			SR-175 / Hopland Road Westbound			SR-175 / Hopland Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	13	2	15	15	9	24	2	20	22	61
04:15 PM	8	3	11	11	12	23	1	17	18	52
04:30 PM	17	3	20	4	18	22	1	24	25	67
04:45 PM	15	2	17	9	18	27	8	26	34	78
Total	53	10	63	39	57	96	12	87	99	258
05:00 PM	15	5	20	15	9	24	2	17	19	63
05:15 PM	14	5	19	12	20	32	1	15	16	67
05:30 PM	16	2	18	11	19	30	2	27	29	77
05:45 PM	11	3	14	11	5	16	4	22	26	56
Total	56	15	71	49	53	102	9	81	90	263
Grand Total	109	25	134	88	110	198	21	168	189	521
Apprch %	81.3	18.7		44.4	55.6		11.1	88.9		
Total %	20.9	4.8	25.7	16.9	21.1	38	4	32.2	36.3	

	Parallel Drive Southbound			SR-175 / Hopland Road Westbound			SR-175 / Hopland Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	15	2	17	9	18	27	8	26	34	78
05:00 PM	15	5	20	15	9	24	2	17	19	63
05:15 PM	14	5	19	12	20	32	1	15	16	67
05:30 PM	16	2	18	11	19	30	2	27	29	77
Total Volume	60	14	74	47	66	113	13	85	98	285
% App. Total	81.1	18.9		41.6	58.4		13.3	86.7		
PHF	.938	.700	.925	.783	.825	.883	.406	.787	.721	.913

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County of Lake
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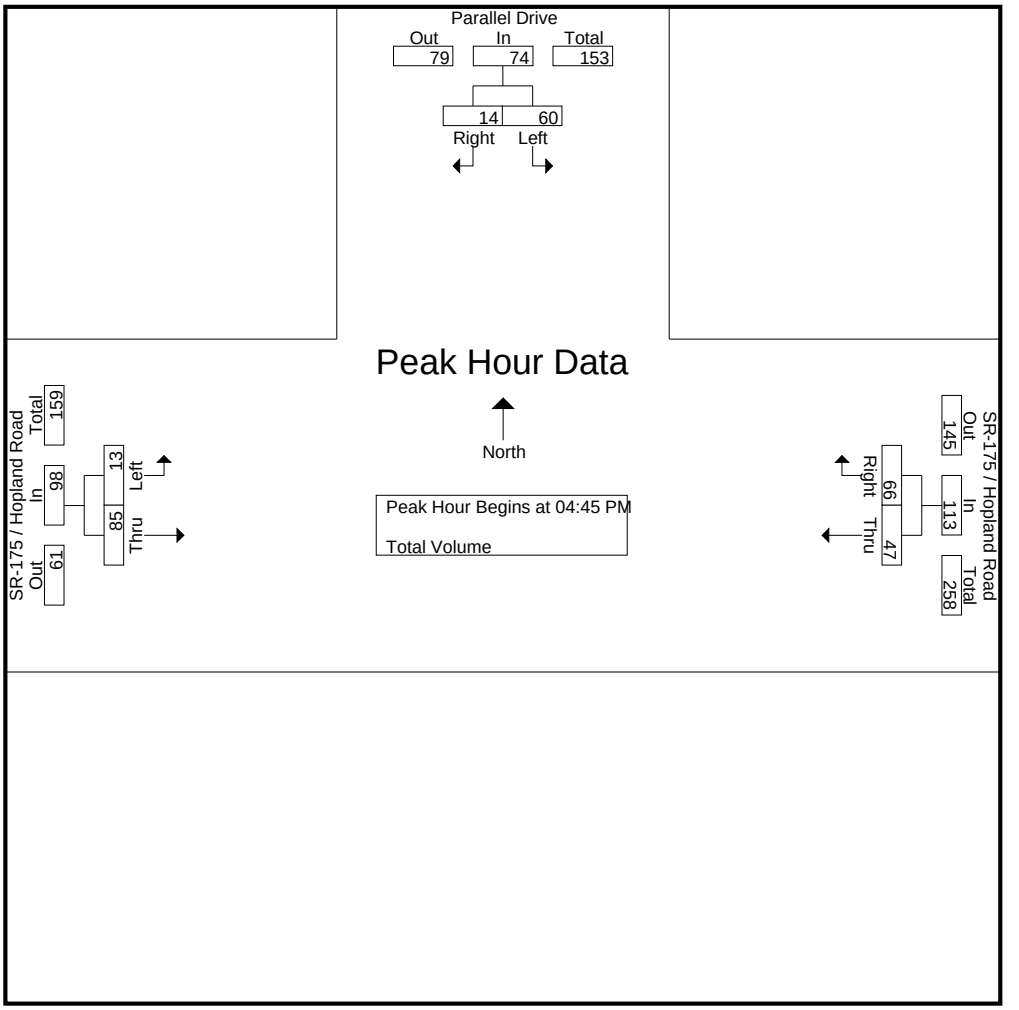

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:45 PM			04:00 PM		
+0 mins.	17	3	20	9	18	27	2	20	22
+15 mins.	15	2	17	15	9	24	1	17	18
+30 mins.	15	5	20	12	20	32	1	24	25
+45 mins.	14	5	19	11	19	30	8	26	34
Total Volume	61	15	76	47	66	113	12	87	99
% App. Total	80.3	19.7		41.6	58.4		12.1	87.9	
PHF	.897	.750	.950	.783	.825	.883	.375	.837	.728

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County of Lake
N/S: SR-29 / SR-175
E/W: SR-175 / Hopland Road
Weather: Clear

File Name : 05_CLE_SR29_SR175_AM
Site Code : 99920174
Start Date : 3/12/2020
Page No : 1

Groups Printed- Total Volume

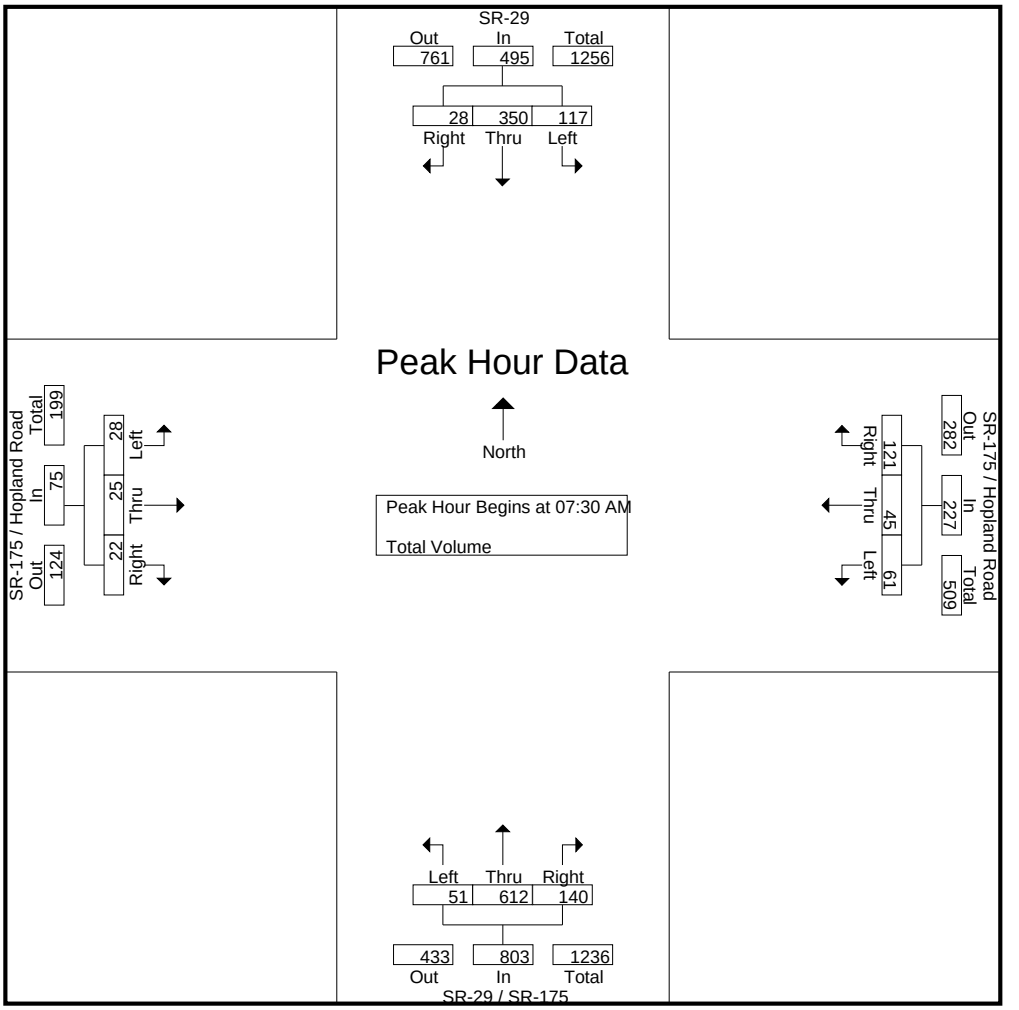
	SR-29 Southbound				SR-175 / Hopland Road Westbound				SR-29 / SR-175 Northbound				SR-175 / Hopland Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	24	81	4	109	9	3	22	34	4	96	13	113	1	2	4	7	263
07:15 AM	15	81	8	104	10	11	21	42	6	134	24	164	3	3	6	12	322
07:30 AM	22	89	4	115	15	4	26	45	10	135	28	173	6	5	4	15	348
07:45 AM	32	77	9	118	9	14	38	61	14	198	43	255	10	10	6	26	460
Total	93	328	25	446	43	32	107	182	34	563	108	705	20	20	20	60	1393
08:00 AM	34	94	12	140	22	16	27	65	14	139	44	197	6	4	4	14	416
08:15 AM	29	90	3	122	15	11	30	56	13	140	25	178	6	6	8	20	376
08:30 AM	26	64	9	99	8	12	20	40	9	117	19	145	8	7	5	20	304
08:45 AM	39	60	10	109	12	13	31	56	22	117	41	180	12	8	6	26	371
Total	128	308	34	470	57	52	108	217	58	513	129	700	32	25	23	80	1467
Grand Total	221	636	59	916	100	84	215	399	92	1076	237	1405	52	45	43	140	2860
Apprch %	24.1	69.4	6.4		25.1	21.1	53.9		6.5	76.6	16.9		37.1	32.1	30.7		
Total %	7.7	22.2	2.1	32	3.5	2.9	7.5	14	3.2	37.6	8.3	49.1	1.8	1.6	1.5	4.9	

	SR-29 Southbound				SR-175 / Hopland Road Westbound				SR-29 / SR-175 Northbound				SR-175 / Hopland Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	22	89	4	115	15	4	26	45	10	135	28	173	6	5	4	15	348
07:45 AM	32	77	9	118	9	14	38	61	14	198	43	255	10	10	6	26	460
08:00 AM	34	94	12	140	22	16	27	65	14	139	44	197	6	4	4	14	416
08:15 AM	29	90	3	122	15	11	30	56	13	140	25	178	6	6	8	20	376
Total Volume	117	350	28	495	61	45	121	227	51	612	140	803	28	25	22	75	1600
% App. Total	23.6	70.7	5.7		26.9	19.8	53.3		6.4	76.2	17.4		37.3	33.3	29.3		
PHF	.860	.931	.583	.884	.693	.703	.796	.873	.911	.773	.795	.787	.700	.625	.688	.721	.870

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

County of Lake
N/S: SR-29 / SR-175
E/W: SR-175 / Hopland Road
Weather: Clear

File Name : 05_CLE_SR29_SR175_AM
Site Code : 99920174
Start Date : 3/12/2020
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:45 AM			
+0 mins.	22	89	4	115	15	4	26	45	10	135	28	173	10	10	6	26
+15 mins.	32	77	9	118	9	14	38	61	14	198	43	255	6	4	4	14
+30 mins.	34	94	12	140	22	16	27	65	14	139	44	197	6	6	8	20
+45 mins.	29	90	3	122	15	11	30	56	13	140	25	178	8	7	5	20
Total Volume	117	350	28	495	61	45	121	227	51	612	140	803	30	27	23	80
% App. Total	23.6	70.7	5.7		26.9	19.8	53.3		6.4	76.2	17.4		37.5	33.8	28.8	
PHF	.860	.931	.583	.884	.693	.703	.796	.873	.911	.773	.795	.787	.750	.675	.719	.769

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County of Lake
N/S: SR-29 / SR-175
E/W: SR-175 / Hopland Road
Weather: Clear

File Name : 05_CLE_SR29_SR175_PM
Site Code : 99920174
Start Date : 3/12/2020

Groups Printed- Total Volume

	SR-29 Southbound				SR-175 / Hopland Road Westbound				SR-29 / SR-175 Northbound				SR-175 / Hopland Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	40	154	5	199	38	9	34	81	10	132	30	172	12	12	12	36	488
04:15 PM	30	143	3	176	23	10	27	60	12	105	29	146	6	4	12	22	404
04:30 PM	20	156	1	177	31	11	32	74	11	121	51	183	16	15	13	44	478
04:45 PM	40	132	5	177	30	11	31	72	10	91	25	126	9	11	12	32	407
Total	130	585	14	729	122	41	124	287	43	449	135	627	43	42	49	134	1777
05:00 PM	34	180	12	226	50	6	31	87	12	123	24	159	11	12	16	39	511
05:15 PM	28	144	7	179	36	10	11	57	13	95	16	124	12	10	6	28	388
05:30 PM	36	140	8	184	40	12	26	78	11	100	17	128	8	19	20	47	437
05:45 PM	32	135	6	173	20	6	32	58	5	88	18	111	14	10	8	32	374
Total	130	599	33	762	146	34	100	280	41	406	75	522	45	51	50	146	1710
Grand Total	260	1184	47	1491	268	75	224	567	84	855	210	1149	88	93	99	280	3487
Apprch %	17.4	79.4	3.2		47.3	13.2	39.5		7.3	74.4	18.3		31.4	33.2	35.4		
Total %	7.5	34	1.3	42.8	7.7	2.2	6.4	16.3	2.4	24.5	6	33	2.5	2.7	2.8	8	

	SR-29 Southbound				SR-175 / Hopland Road Westbound				SR-29 / SR-175 Northbound				SR-175 / Hopland Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	30	143	3	176	23	10	27	60	12	105	29	146	6	4	12	22	404
04:30 PM	20	156	1	177	31	11	32	74	11	121	51	183	16	15	13	44	478
04:45 PM	40	132	5	177	30	11	31	72	10	91	25	126	9	11	12	32	407
05:00 PM	34	180	12	226	50	6	31	87	12	123	24	159	11	12	16	39	511
Total Volume	124	611	21	756	134	38	121	293	45	440	129	614	42	42	53	137	1800
% App. Total	16.4	80.8	2.8		45.7	13	41.3		7.3	71.7	21		30.7	30.7	38.7		
PHF	.775	.849	.438	.836	.670	.864	.945	.842	.938	.894	.632	.839	.656	.700	.828	.778	.881

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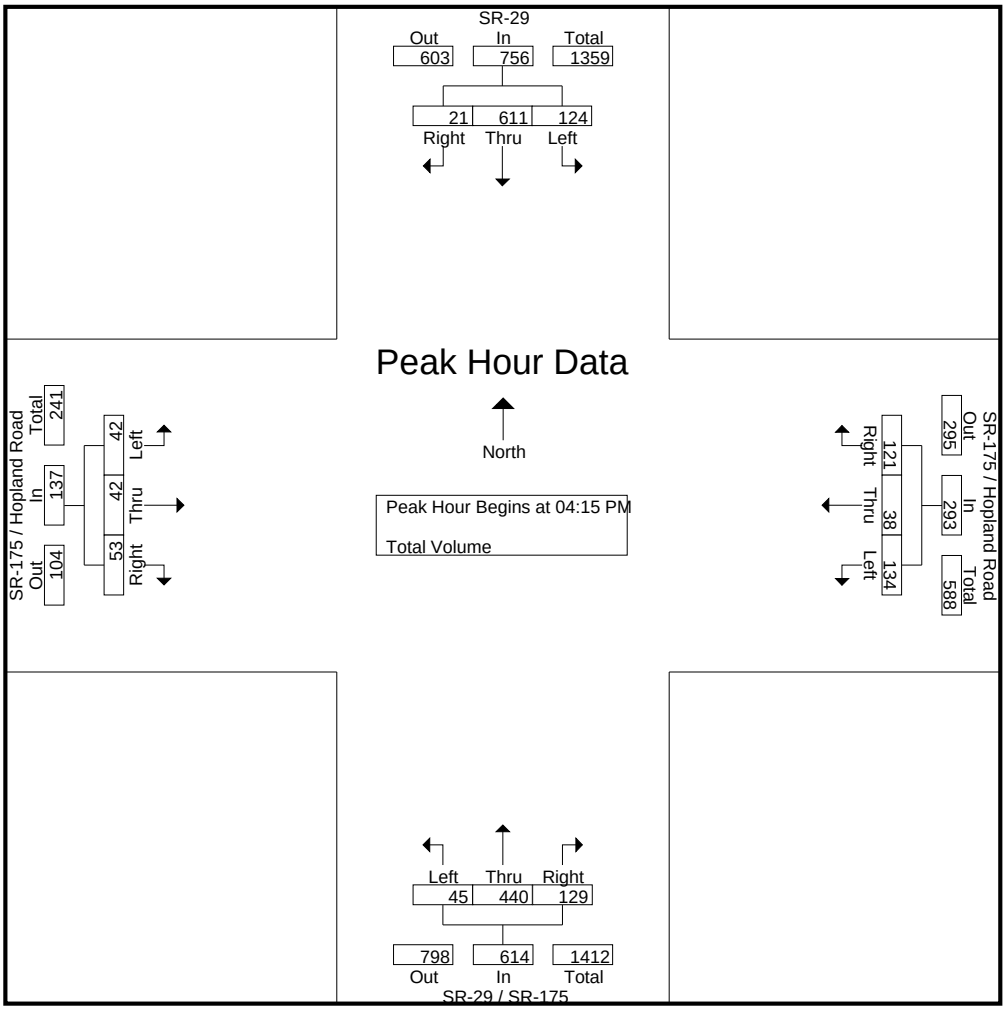
County of Lake
N/S: SR-29 / SR-175
E/W: SR-175 / Hopland Road
Weather: Clear

File Name : 05_CLE_SR29_SR175_PM
Site Code : 99920174
Start Date : 3/12/2020
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:00 PM				04:45 PM			
+0 mins.	40	132	5	177	30	11	31	72	10	132	30	172	9	11	12	32
+15 mins.	34	180	12	226	50	6	31	87	12	105	29	146	11	12	16	39
+30 mins.	28	144	7	179	36	10	11	57	11	121	51	183	12	10	6	28
+45 mins.	36	140	8	184	40	12	26	78	10	91	25	126	8	19	20	47
Total Volume	138	596	32	766	156	39	99	294	43	449	135	627	40	52	54	146
% App. Total	18	77.8	4.2		53.1	13.3	33.7		6.9	71.6	21.5		27.4	35.6	37	
PHF	.863	.828	.667	.847	.780	.813	.798	.845	.896	.850	.662	.857	.833	.684	.675	.777

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City of Lakeport
N/S: SR-29 Northbound Ramps
E/W: Lakeport Boulevard
Weather: Clear

File Name : 01_LKT_29 N_Lakeport_AM
Site Code : 99920260
Start Date : 7/9/2020
Page No : 1

Groups Printed- Total Volume

	SR-29 Northbound On Ramp Southbound				Lakeport Boulevard Westbound				SR-29 Northbound Off Ramp Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	23	14	37	7	0	19	26	12	37	0	49	112
07:15 AM	0	0	0	0	0	25	15	40	9	0	39	48	10	19	0	29	117
07:30 AM	0	0	0	0	0	31	13	44	12	0	36	48	8	50	0	58	150
07:45 AM	0	0	0	0	0	44	22	66	12	0	70	82	16	56	0	72	220
Total	0	0	0	0	0	123	64	187	40	0	164	204	46	162	0	208	599
08:00 AM	0	0	0	0	0	39	21	60	13	0	46	59	14	49	0	63	182
08:15 AM	0	0	0	0	0	39	31	70	14	0	41	55	15	48	0	63	188
08:30 AM	0	0	0	0	0	35	23	58	10	0	43	53	17	48	0	65	176
08:45 AM	0	0	0	0	0	37	21	58	11	0	41	52	15	67	0	82	192
Total	0	0	0	0	0	150	96	246	48	0	171	219	61	212	0	273	738
Grand Total	0	0	0	0	0	273	160	433	88	0	335	423	107	374	0	481	1337
Apprch %	0	0	0		0	63	37		20.8	0	79.2		22.2	77.8	0		
Total %	0	0	0	0	0	20.4	12	32.4	6.6	0	25.1	31.6	8	28	0	36	

	SR-29 Northbound On Ramp Southbound				Lakeport Boulevard Westbound				SR-29 Northbound Off Ramp Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	44	22	66	12	0	70	82	16	56	0	72	220
08:00 AM	0	0	0	0	0	39	21	60	13	0	46	59	14	49	0	63	182
08:15 AM	0	0	0	0	0	39	31	70	14	0	41	55	15	48	0	63	188
08:30 AM	0	0	0	0	0	35	23	58	10	0	43	53	17	48	0	65	176
Total Volume	0	0	0	0	0	157	97	254	49	0	200	249	62	201	0	263	766
% App. Total	0	0	0		0	61.8	38.2		19.7	0	80.3		23.6	76.4	0		
PHF	.000	.000	.000	.000	.000	.892	.782	.907	.875	.000	.714	.759	.912	.897	.000	.913	.870

Counts Unlimited
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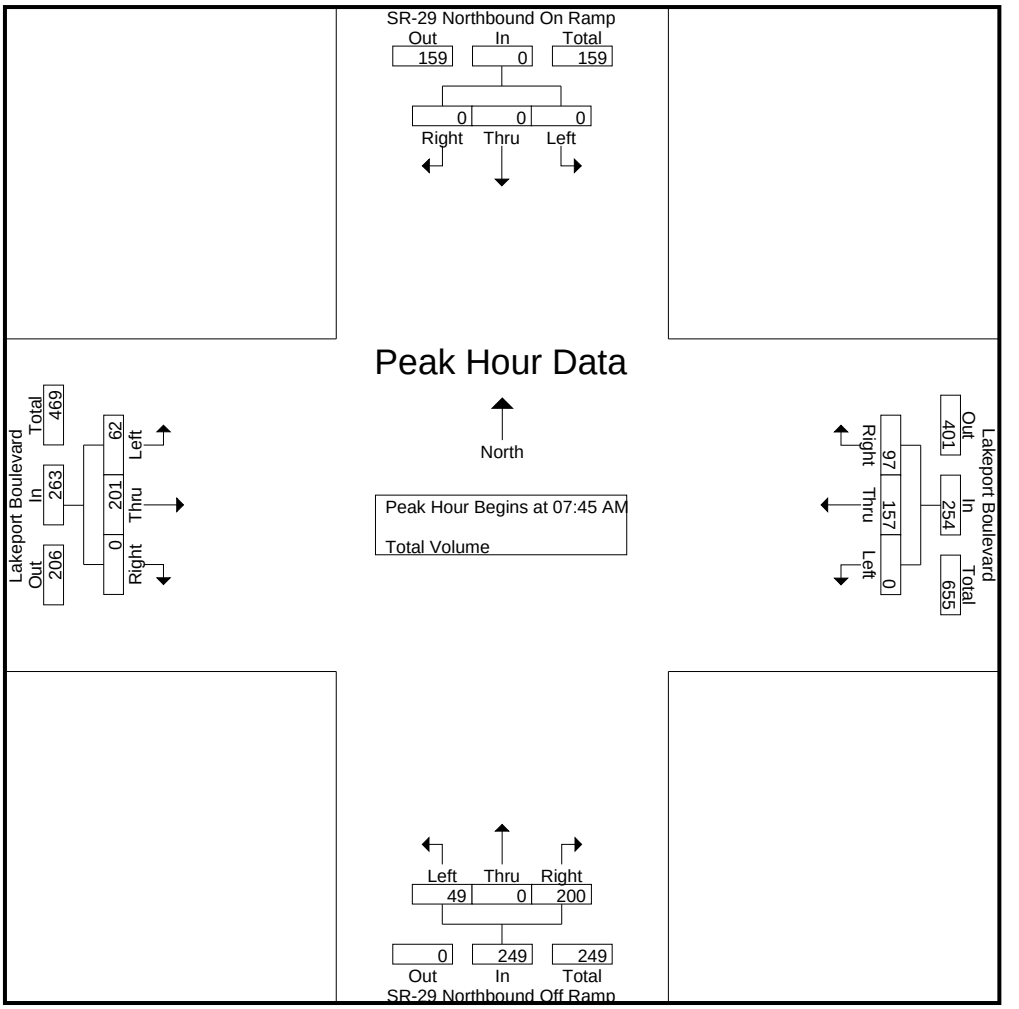
File Name : 01_LKT_29 N_Lakeport_AM
Site Code : 99920260
Start Date : 7/9/2020
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:45 AM				07:45 AM				08:00 AM			
+0 mins.	0	0	0	0	0	44	22	66	12	0	70	82	14	49	0	63
+15 mins.	0	0	0	0	0	39	21	60	13	0	46	59	15	48	0	63
+30 mins.	0	0	0	0	0	39	31	70	14	0	41	55	17	48	0	65
+45 mins.	0	0	0	0	0	35	23	58	10	0	43	53	15	67	0	82
Total Volume	0	0	0	0	0	157	97	254	49	0	200	249	61	212	0	273
% App. Total	0	0	0		0	61.8	38.2		19.7	0	80.3		22.3	77.7	0	
PHF	.000	.000	.000	.000	.000	.892	.782	.907	.875	.000	.714	.759	.897	.791	.000	.832

Counts Unlimited
PO Box 1178
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City of Lakeport
N/S: SR-29 Northbound Ramps
E/W: Lakeport Boulevard
Weather: Clear

File Name : 01_LKT_29 N_Lakeport_PM
Site Code : 99920260
Start Date : 7/9/2020
Page No : 1

Groups Printed- Total Volume

	SR-29 Northbound On Ramp Southbound				Lakeport Boulevard Westbound				SR-29 Northbound Off Ramp Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	85	47	132	12	1	30	43	19	66	0	85	260
04:15 PM	0	0	0	0	0	67	48	115	13	0	25	38	25	55	0	80	233
04:30 PM	0	0	0	0	0	65	39	104	11	1	37	49	33	61	0	94	247
04:45 PM	0	0	0	0	0	79	37	116	6	0	29	35	24	48	0	72	223
Total	0	0	0	0	0	296	171	467	42	2	121	165	101	230	0	331	963
05:00 PM	0	0	0	0	0	98	68	166	11	1	36	48	33	50	0	83	297
05:15 PM	0	0	0	0	0	63	49	112	5	0	20	25	24	73	0	97	234
05:30 PM	0	0	0	0	0	55	43	98	6	0	30	36	18	51	0	69	203
05:45 PM	0	0	0	0	0	53	31	84	7	0	23	30	15	42	0	57	171
Total	0	0	0	0	0	269	191	460	29	1	109	139	90	216	0	306	905
Grand Total	0	0	0	0	0	565	362	927	71	3	230	304	191	446	0	637	1868
Apprch %	0	0	0		0	60.9	39.1		23.4	1	75.7		30	70	0		
Total %	0	0	0	0	0	30.2	19.4	49.6	3.8	0.2	12.3	16.3	10.2	23.9	0	34.1	

	SR-29 Northbound On Ramp Southbound				Lakeport Boulevard Westbound				SR-29 Northbound Off Ramp Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	65	39	104	11	1	37	49	33	61	0	94	247
04:45 PM	0	0	0	0	0	79	37	116	6	0	29	35	24	48	0	72	223
05:00 PM	0	0	0	0	0	98	68	166	11	1	36	48	33	50	0	83	297
05:15 PM	0	0	0	0	0	63	49	112	5	0	20	25	24	73	0	97	234
Total Volume	0	0	0	0	0	305	193	498	33	2	122	157	114	232	0	346	1001
% App. Total	0	0	0		0	61.2	38.8		21	1.3	77.7		32.9	67.1	0		
PHF	.000	.000	.000	.000	.000	.778	.710	.750	.750	.500	.824	.801	.864	.795	.000	.892	.843

Counts Unlimited
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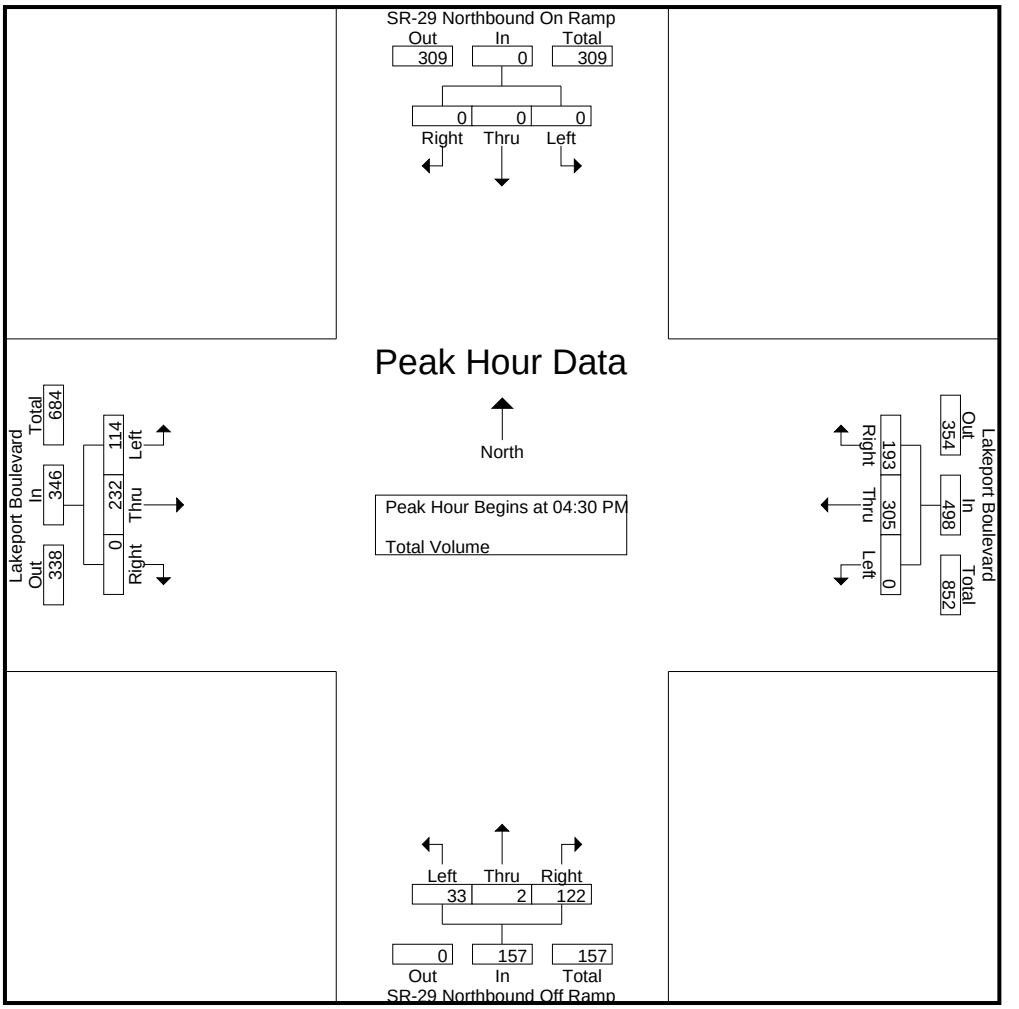
File Name : 01_LKT_29 N_Lakeport_PM
Site Code : 99920260
Start Date : 7/9/2020
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:15 PM				04:15 PM				04:30 PM			
+0 mins.	0	0	0	0	0	67	48	115	13	0	25	38	33	61	0	94
+15 mins.	0	0	0	0	0	65	39	104	11	1	37	49	24	48	0	72
+30 mins.	0	0	0	0	0	79	37	116	6	0	29	35	33	50	0	83
+45 mins.	0	0	0	0	0	98	68	166	11	1	36	48	24	73	0	97
Total Volume	0	0	0	0	0	309	192	501	41	2	127	170	114	232	0	346
% App. Total	0	0	0		0	61.7	38.3		24.1	1.2	74.7		32.9	67.1	0	
PHF	.000	.000	.000	.000	.000	.788	.706	.755	.788	.500	.858	.867	.864	.795	.000	.892

Counts Unlimited
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City of Lakeport
N/S: SR-29 Southbound Ramps
E/W: Lakeport Boulevard
Weather: Clear

File Name : 02_LKT_29 S_Lakeport_AM
Site Code : 99920260
Start Date : 7/9/2020
Page No : 1

Groups Printed- Total Volume

	SR-29 Southbound Off Ramp Southbound				Lakeport Boulevard Westbound				SR-29 Southbound On Ramp Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	23	0	8	31	9	19	0	28	0	0	0	0	0	24	7	31	90
07:15 AM	17	0	15	32	11	22	0	33	0	0	0	0	0	16	9	25	90
07:30 AM	36	0	25	61	12	34	0	46	0	0	0	0	0	22	5	27	134
07:45 AM	37	0	29	66	21	35	0	56	0	0	0	0	0	34	7	41	163
Total	113	0	77	190	53	110	0	163	0	0	0	0	0	96	28	124	477
08:00 AM	26	0	22	48	16	35	0	51	0	0	0	0	0	42	10	52	151
08:15 AM	32	0	19	51	15	38	0	53	0	0	0	0	0	27	6	33	137
08:30 AM	28	1	26	55	12	35	0	47	0	0	0	0	0	39	7	46	148
08:45 AM	32	0	21	53	13	31	0	44	0	0	0	0	0	51	14	65	162
Total	118	1	88	207	56	139	0	195	0	0	0	0	0	159	37	196	598
Grand Total	231	1	165	397	109	249	0	358	0	0	0	0	0	255	65	320	1075
Apprch %	58.2	0.3	41.6		30.4	69.6	0		0	0	0		0	79.7	20.3		
Total %	21.5	0.1	15.3	36.9	10.1	23.2	0	33.3	0	0	0	0	0	23.7	6	29.8	

	SR-29 Southbound Off Ramp Southbound				Lakeport Boulevard Westbound				SR-29 Southbound On Ramp Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	37	0	29	66	21	35	0	56	0	0	0	0	0	34	7	41	163
08:00 AM	26	0	22	48	16	35	0	51	0	0	0	0	0	42	10	52	151
08:15 AM	32	0	19	51	15	38	0	53	0	0	0	0	0	27	6	33	137
08:30 AM	28	1	26	55	12	35	0	47	0	0	0	0	0	39	7	46	148
Total Volume	123	1	96	220	64	143	0	207	0	0	0	0	0	142	30	172	599
% App. Total	55.9	0.5	43.6		30.9	69.1	0		0	0	0		0	82.6	17.4		
PHF	.831	.250	.828	.833	.762	.941	.000	.924	.000	.000	.000	.000	.000	.845	.750	.827	.919

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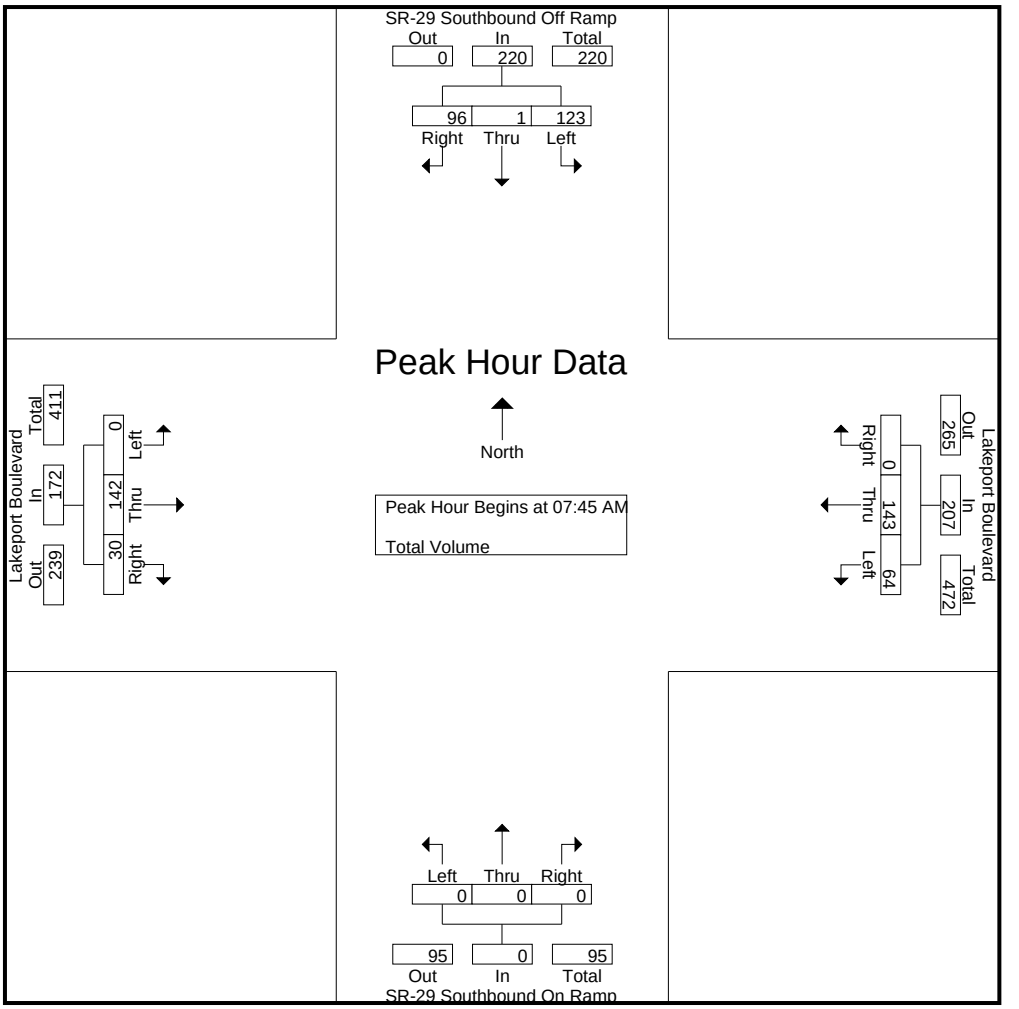

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:45 AM				07:00 AM				08:00 AM			
+0 mins.	36	0	25	61	21	35	0	56	0	0	0	0	0	42	10	52
+15 mins.	37	0	29	66	16	35	0	51	0	0	0	0	0	27	6	33
+30 mins.	26	0	22	48	15	38	0	53	0	0	0	0	0	39	7	46
+45 mins.	32	0	19	51	12	35	0	47	0	0	0	0	0	51	14	65
Total Volume	131	0	95	226	64	143	0	207	0	0	0	0	0	159	37	196
% App. Total	58	0	42		30.9	69.1	0		0	0	0		0	81.1	18.9	
PHF	.885	.000	.819	.856	.762	.941	.000	.924	.000	.000	.000	.000	.000	.779	.661	.754

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City of Lakeport
N/S: SR-29 Southbound Ramps
E/W: Lakeport Boulevard
Weather: Clear

File Name : 02_LKT_29 S_Lakeport_PM
Site Code : 99920260
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Groups Printed- Total Volume

	SR-29 Southbound Off Ramp Southbound				Lakeport Boulevard Westbound				SR-29 Southbound On Ramp Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	30	0	17	47	55	43	0	98	0	0	0	0	0	57	12	69	214
04:15 PM	28	0	22	50	30	49	0	79	0	0	0	0	0	53	16	69	198
04:30 PM	32	0	19	51	36	41	0	77	0	0	0	0	0	63	15	78	206
04:45 PM	24	0	22	46	43	43	0	86	0	0	0	0	0	45	16	61	193
Total	114	0	80	194	164	176	0	340	0	0	0	0	0	218	59	277	811
05:00 PM	25	0	33	58	77	37	0	114	0	0	0	0	0	63	14	77	249
05:15 PM	35	0	29	64	35	35	0	70	0	0	0	0	0	57	17	74	208
05:30 PM	21	0	21	42	35	28	0	63	0	0	0	0	0	49	12	61	166
05:45 PM	17	0	18	35	26	32	0	58	0	0	0	0	0	39	11	50	143
Total	98	0	101	199	173	132	0	305	0	0	0	0	0	208	54	262	766
Grand Total	212	0	181	393	337	308	0	645	0	0	0	0	0	426	113	539	1577
Apprch %	53.9	0	46.1		52.2	47.8	0		0	0	0		0	79	21		
Total %	13.4	0	11.5	24.9	21.4	19.5	0	40.9	0	0	0	0	0	27	7.2	34.2	

	SR-29 Southbound Off Ramp Southbound				Lakeport Boulevard Westbound				SR-29 Southbound On Ramp Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	32	0	19	51	36	41	0	77	0	0	0	0	0	63	15	78	206
04:45 PM	24	0	22	46	43	43	0	86	0	0	0	0	0	45	16	61	193
05:00 PM	25	0	33	58	77	37	0	114	0	0	0	0	0	63	14	77	249
05:15 PM	35	0	29	64	35	35	0	70	0	0	0	0	0	57	17	74	208
Total Volume	116	0	103	219	191	156	0	347	0	0	0	0	0	228	62	290	856
% App. Total	53	0	47		55	45	0		0	0	0		0	78.6	21.4		
PHF	.829	.000	.780	.855	.620	.907	.000	.761	.000	.000	.000	.000	.000	.905	.912	.929	.859

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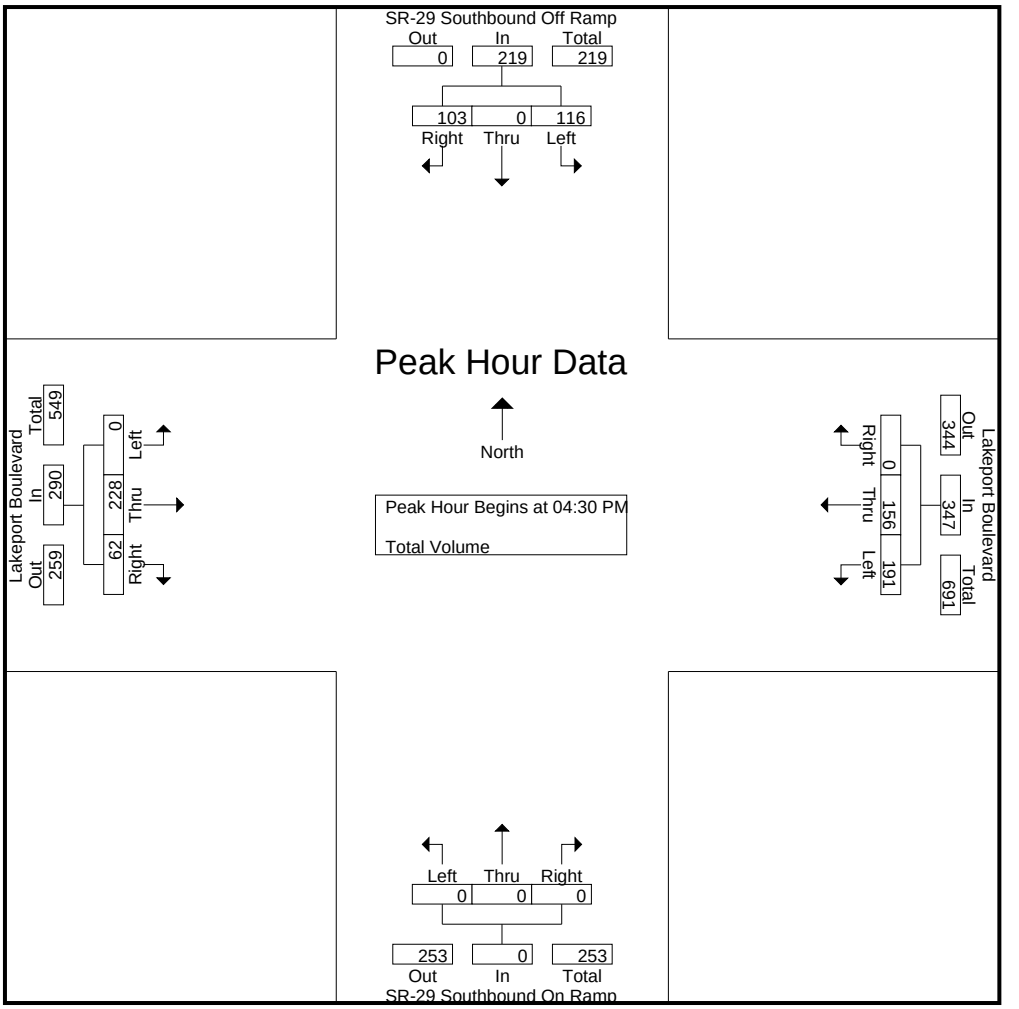

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:15 PM				04:00 PM				04:30 PM			
+0 mins.	32	0	19	51	30	49	0	79	0	0	0	0	0	63	15	78
+15 mins.	24	0	22	46	36	41	0	77	0	0	0	0	0	45	16	61
+30 mins.	25	0	33	58	43	43	0	86	0	0	0	0	0	63	14	77
+45 mins.	35	0	29	64	77	37	0	114	0	0	0	0	0	57	17	74
Total Volume	116	0	103	219	186	170	0	356	0	0	0	0	0	228	62	290
% App. Total	53	0	47		52.2	47.8	0		0	0	0		0	78.6	21.4	
PHF	.829	.000	.780	.855	.604	.867	.000	.781	.000	.000	.000	.000	.000	.905	.912	.929

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City of Lakeport
N/S: Bevins Street
E/W: Lakeport Boulevard
Weather: Clear

File Name : 03_LKT_Bevins_Lakeport_AM
Site Code : 99920260
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Groups Printed- Total Volume

	Bevins Street Southbound				Lakeport Boulevard Westbound				Bevins Street Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	3	0	18	21	1	18	3	22	0	0	0	0	24	30	1	55	98
07:15 AM	1	0	19	20	1	19	5	25	1	0	4	5	25	34	0	59	109
07:30 AM	4	1	27	32	0	17	6	23	0	0	2	2	39	47	0	86	143
07:45 AM	9	0	30	39	1	38	8	47	0	0	0	0	67	55	3	125	211
Total	17	1	94	112	3	92	22	117	1	0	6	7	155	166	4	325	561
08:00 AM	8	0	21	29	1	35	6	42	1	0	4	5	32	58	4	94	170
08:15 AM	4	0	33	37	0	36	6	42	2	0	1	3	39	51	2	92	174
08:30 AM	5	0	21	26	1	38	8	47	0	1	0	1	37	52	0	89	163
08:45 AM	9	0	23	32	0	30	5	35	2	0	1	3	36	67	3	106	176
Total	26	0	98	124	2	139	25	166	5	1	6	12	144	228	9	381	683
Grand Total	43	1	192	236	5	231	47	283	6	1	12	19	299	394	13	706	1244
Apprch %	18.2	0.4	81.4		1.8	81.6	16.6		31.6	5.3	63.2		42.4	55.8	1.8		
Total %	3.5	0.1	15.4	19	0.4	18.6	3.8	22.7	0.5	0.1	1	1.5	24	31.7	1	56.8	

	Bevins Street Southbound				Lakeport Boulevard Westbound				Bevins Street Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	9	0	30	39	1	38	8	47	0	0	0	0	67	55	3	125	211
08:00 AM	8	0	21	29	1	35	6	42	1	0	4	5	32	58	4	94	170
08:15 AM	4	0	33	37	0	36	6	42	2	0	1	3	39	51	2	92	174
08:30 AM	5	0	21	26	1	38	8	47	0	1	0	1	37	52	0	89	163
Total Volume	26	0	105	131	3	147	28	178	3	1	5	9	175	216	9	400	718
% App. Total	19.8	0	80.2		1.7	82.6	15.7		33.3	11.1	55.6		43.8	54	2.2		
PHF	.722	.000	.795	.840	.750	.967	.875	.947	.375	.250	.313	.450	.653	.931	.563	.800	.851

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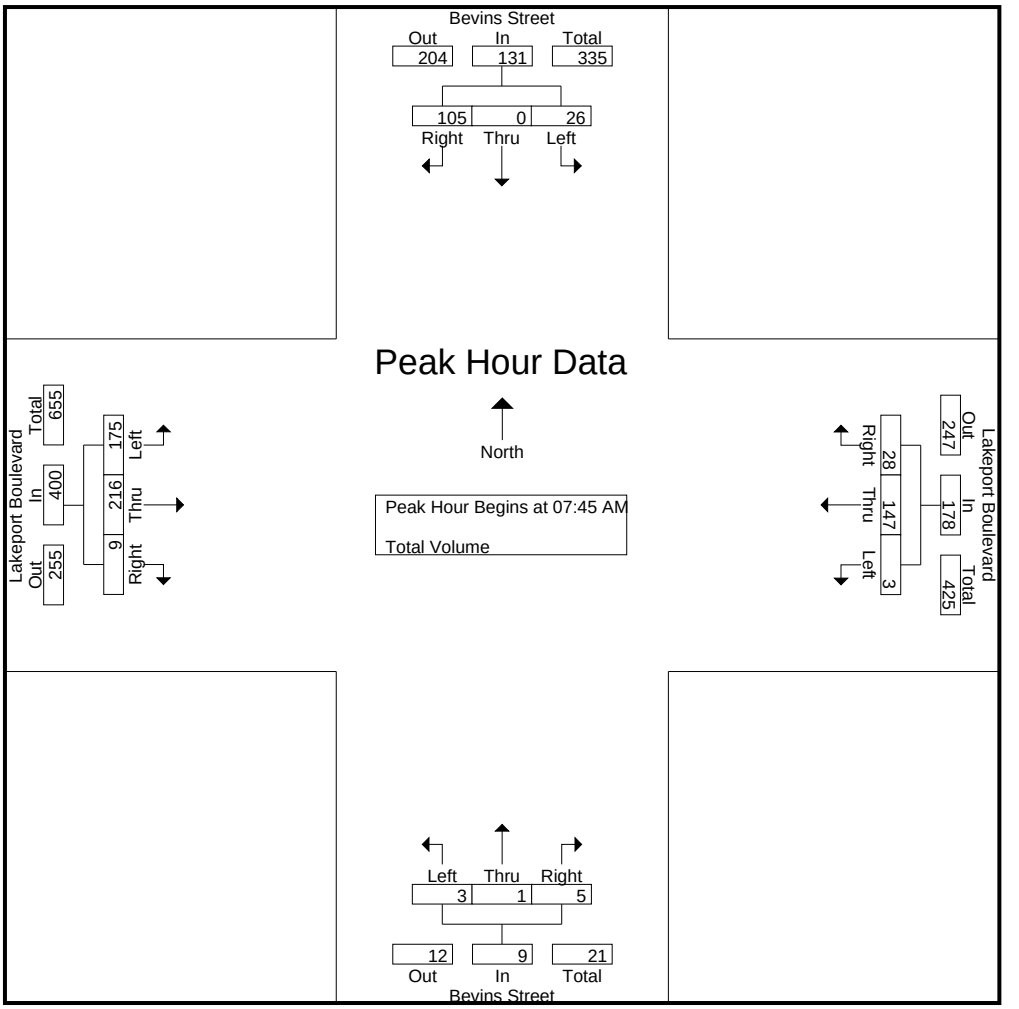

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:45 AM				07:15 AM				07:45 AM			
+0 mins.	4	1	27	32	1	38	8	47	1	0	4	5	67	55	3	125
+15 mins.	9	0	30	39	1	35	6	42	0	0	2	2	32	58	4	94
+30 mins.	8	0	21	29	0	36	6	42	0	0	0	0	39	51	2	92
+45 mins.	4	0	33	37	1	38	8	47	1	0	4	5	37	52	0	89
Total Volume	25	1	111	137	3	147	28	178	2	0	10	12	175	216	9	400
% App. Total	18.2	0.7	81		1.7	82.6	15.7		16.7	0	83.3		43.8	54	2.2	
PHF	.694	.250	.841	.878	.750	.967	.875	.947	.500	.000	.625	.600	.653	.931	.563	.800

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City of Lakeport
N/S: Bevins Street
E/W: Lakeport Boulevard
Weather: Clear

File Name : 03_LKT_Bevins_Lakeport_PM
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Groups Printed- Total Volume

	Bevins Street Southbound				Lakeport Boulevard Westbound				Bevins Street Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	3	0	39	42	0	98	16	114	1	0	3	4	28	67	0	95	255
04:15 PM	8	2	32	42	0	83	17	100	1	0	0	1	23	56	3	82	225
04:30 PM	12	0	35	47	1	70	9	80	2	0	2	4	27	72	1	100	231
04:45 PM	7	0	46	53	0	68	6	74	1	0	1	2	17	57	0	74	203
Total	30	2	152	184	1	319	48	368	5	0	6	11	95	252	4	351	914
05:00 PM	9	1	70	80	0	97	10	107	4	0	2	6	32	53	2	87	280
05:15 PM	5	1	26	32	1	82	7	90	1	0	0	1	30	67	1	98	221
05:30 PM	6	0	24	30	1	73	5	79	3	0	0	3	19	51	2	72	184
05:45 PM	6	0	26	32	1	50	10	61	4	0	1	5	16	41	2	59	157
Total	26	2	146	174	3	302	32	337	12	0	3	15	97	212	7	316	842
Grand Total	56	4	298	358	4	621	80	705	17	0	9	26	192	464	11	667	1756
Apprch %	15.6	1.1	83.2		0.6	88.1	11.3		65.4	0	34.6		28.8	69.6	1.6		
Total %	3.2	0.2	17	20.4	0.2	35.4	4.6	40.1	1	0	0.5	1.5	10.9	26.4	0.6	38	

	Bevins Street Southbound				Lakeport Boulevard Westbound				Bevins Street Northbound				Lakeport Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	8	2	32	42	0	83	17	100	1	0	0	1	23	56	3	82	225
04:30 PM	12	0	35	47	1	70	9	80	2	0	2	4	27	72	1	100	231
04:45 PM	7	0	46	53	0	68	6	74	1	0	1	2	17	57	0	74	203
05:00 PM	9	1	70	80	0	97	10	107	4	0	2	6	32	53	2	87	280
Total Volume	36	3	183	222	1	318	42	361	8	0	5	13	99	238	6	343	939
% App. Total	16.2	1.4	82.4		0.3	88.1	11.6		61.5	0	38.5		28.9	69.4	1.7		
PHF	.750	.375	.654	.694	.250	.820	.618	.843	.500	.000	.625	.542	.773	.826	.500	.858	.838

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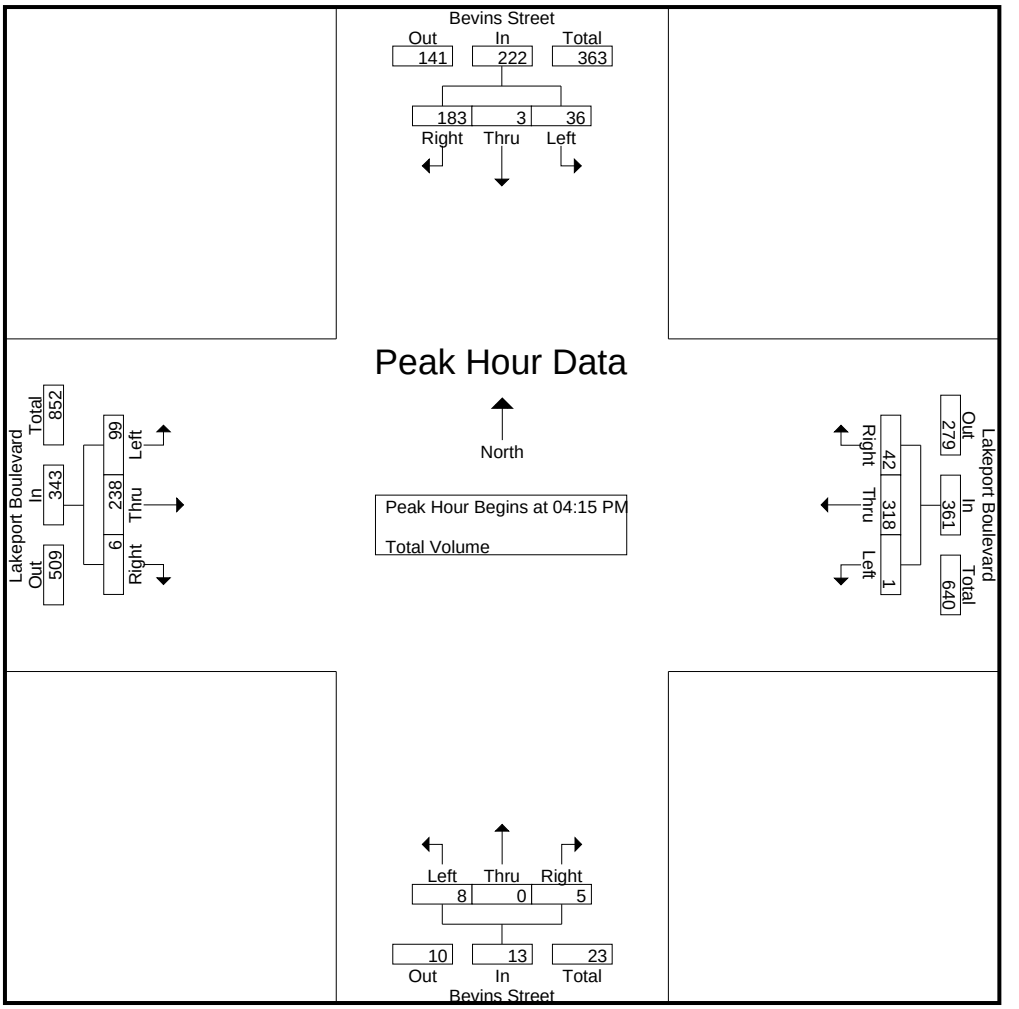


Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:00 PM				05:00 PM				04:30 PM			
+0 mins.	8	2	32	42	0	98	16	114	4	0	2	6	27	72	1	100
+15 mins.	12	0	35	47	0	83	17	100	1	0	0	1	17	57	0	74
+30 mins.	7	0	46	53	1	70	9	80	3	0	0	3	32	53	2	87
+45 mins.	9	1	70	80	0	68	6	74	4	0	1	5	30	67	1	98
Total Volume	36	3	183	222	1	319	48	368	12	0	3	15	106	249	4	359
% App. Total	16.2	1.4	82.4		0.3	86.7	13		80	0	20		29.5	69.4	1.1	
PHF	.750	.375	.654	.694	.250	.814	.706	.807	.750	.000	.375	.625	.828	.865	.500	.898

APPENDIX C
HCM ANALYSIS SHEETS

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	70	272	0	0	215	102	48	0	248	0	0	0
Future Vol, veh/h	70	272	0	0	215	102	48	0	248	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	74	286	0	0	226	107	51	0	261	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	333	0	-	-	-	0	714	767	286
Stage 1	-	-	-	-	-	-	434	434	-
Stage 2	-	-	-	-	-	-	280	333	-
Critical Hdwy	4.12	-	-	-	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1226	-	0	0	-	-	398	332	753
Stage 1	-	-	0	0	-	-	653	581	-
Stage 2	-	-	0	0	-	-	767	644	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1226	-	-	-	-	-	374	0	753
Mov Cap-2 Maneuver	-	-	-	-	-	-	374	0	-
Stage 1	-	-	-	-	-	-	614	0	-
Stage 2	-	-	-	-	-	-	767	0	-

Approach	EB	WB	NB
HCM Control Delay, s	1.7	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	374	753	1226	-	-	-
HCM Lane V/C Ratio	0.135	0.347	0.06	-	-	-
HCM Control Delay (s)	16.1	12.3	8.1	-	-	-
HCM Lane LOS	C	B	A	-	-	-
HCM 95th %tile Q(veh)	0.5	1.6	0.2	-	-	-

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	182	31	99	172	0	0	0	0	161	0	128
Future Vol, veh/h	0	182	31	99	172	0	0	0	0	161	0	128
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	150	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	198	34	108	187	0	0	0	0	175	0	139

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	-	0	0	232	0	0			618	635	187
Stage 1	-	-	-	-	-	-			403	403	-
Stage 2	-	-	-	-	-	-			215	232	-
Critical Hdwy	-	-	-	4.12	-	-			6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-			5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-			3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1336	-	0			453	396	855
Stage 1	0	-	-	-	-	0			675	600	-
Stage 2	0	-	-	-	-	0			821	713	-
Platoon blocked, %		-	-		-						
Mov Cap-1 Maneuver	-	-	-	1336	-	-			416	0	855
Mov Cap-2 Maneuver	-	-	-	-	-	-			416	0	-
Stage 1	-	-	-	-	-	-			675	0	-
Stage 2	-	-	-	-	-	-			754	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	2.9	15.5
HCM LOS			C

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	1336	-	416	855
HCM Lane V/C Ratio	-	-	0.081	-	0.421	0.163
HCM Control Delay (s)	-	-	7.9	-	19.8	10
HCM Lane LOS	-	-	A	-	C	B
HCM 95th %tile Q(veh)	-	-	0.3	-	2	0.6

Intersection	
Intersection Delay, s/veh	3.5
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	37	225	82	114
Demand Flow Rate, veh/h	38	229	84	116
Vehicles Circulating, veh/h	153	43	132	61
Vehicles Exiting, veh/h	24	173	59	211
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.1	3.5	3.6	3.6
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	R	LT	R	LTR	LTR
Assumed Moves	LT	R	LT	R	LTR	LTR
RT Channelized						
Lane Util	0.842	0.158	0.245	0.755	1.000	1.000
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.609	2.609
Critical Headway, s	4.544	4.544	4.544	4.544	4.976	4.976
Entry Flow, veh/h	32	6	56	173	84	116
Cap Entry Lane, veh/h	1236	1236	1366	1366	1206	1297
Entry HV Adj Factor	0.981	1.000	0.975	0.983	0.979	0.980
Flow Entry, veh/h	31	6	55	170	82	114
Cap Entry, veh/h	1212	1236	1332	1342	1181	1271
V/C Ratio	0.026	0.005	0.041	0.127	0.070	0.089
Control Delay, s/veh	3.2	3.0	3.0	3.7	3.6	3.6
LOS	A	A	A	A	A	A
95th %tile Queue, veh	0	0	0	0	0	0

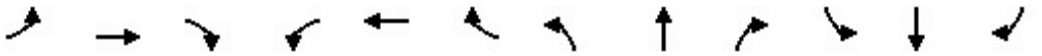
Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	14	54	72	68	26	10
Future Vol, veh/h	14	54	72	68	26	10
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	25
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	64	85	80	31	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	165	0	-	0	221	125
Stage 1	-	-	-	-	125	-
Stage 2	-	-	-	-	96	-
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	1413	-	-	-	767	926
Stage 1	-	-	-	-	901	-
Stage 2	-	-	-	-	928	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1413	-	-	-	758	926
Mov Cap-2 Maneuver	-	-	-	-	758	-
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	928	-

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1413	-	-	-	758	926
HCM Lane V/C Ratio	0.012	-	-	-	0.04	0.013
HCM Control Delay (s)	7.6	0	-	-	9.9	8.9
HCM Lane LOS	A	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	25	22	61	45	121	51	612	140	117	350	28
Future Volume (veh/h)	28	25	22	61	45	121	51	612	140	117	350	28
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	29	25	70	52	139	59	703	161	134	402	32
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	152	113	194	225	228	194	87	1104	936	169	1190	1009
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.05	0.59	0.59	0.09	0.64	0.64
Sat Flow, veh/h	600	924	1585	1350	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	61	0	25	70	52	139	59	703	161	134	402	32
Grp Sat Flow(s),veh/h/ln	1524	0	1585	1350	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.4	0.0	1.0	3.5	1.8	5.9	2.3	17.3	3.2	5.2	7.0	0.5
Cycle Q Clear(g_c), s	2.2	0.0	1.0	5.7	1.8	5.9	2.3	17.3	3.2	5.2	7.0	0.5
Prop In Lane	0.52		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	265	0	194	225	228	194	87	1104	936	169	1190	1009
V/C Ratio(X)	0.23	0.00	0.13	0.31	0.23	0.72	0.68	0.64	0.17	0.79	0.34	0.03
Avail Cap(c_a), veh/h	459	0	408	408	481	408	168	1104	936	191	1190	1009
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	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	27.9	0.0	27.4	30.5	27.7	29.6	32.8	9.4	6.5	31.0	5.9	4.7
Incr Delay (d2), s/veh	0.4	0.0	0.3	0.8	0.5	4.9	8.9	2.8	0.4	18.2	0.8	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	0.9	0.0	0.4	1.1	0.8	2.4	1.2	6.6	1.0	3.0	2.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.3	0.0	27.7	31.3	28.2	34.5	41.7	12.2	6.9	49.3	6.7	4.8
LnGrp LOS	C	A	C	C	C	C	D	B	A	D	A	A
Approach Vol, veh/h		86			261			923			568	
Approach Delay, s/veh		28.2			32.4			13.2			16.6	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	45.8		13.0	7.9	49.0		13.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	7.5	31.0		18.0	6.6	31.9		18.0				
Max Q Clear Time (g_c+I1), s	7.2	19.3		4.2	4.3	9.0		7.9				
Green Ext Time (p_c), s	0.0	4.3		0.3	0.0	2.6		0.7				

Intersection Summary			
HCM 6th Ctrl Delay		17.7	
HCM 6th LOS		B	

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	223	275	11	4	187	36	4	1	6	33	0	134
Future Vol, veh/h	223	275	11	4	187	36	4	1	6	33	0	134
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	-	80	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	262	324	13	5	220	42	5	1	7	39	0	158

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	262	0	0	337	0	0	1185	1127	331	1110	1112	241
Stage 1	-	-	-	-	-	-	855	855	-	251	251	-
Stage 2	-	-	-	-	-	-	330	272	-	859	861	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1302	-	-	1222	-	-	166	205	711	187	209	798
Stage 1	-	-	-	-	-	-	353	375	-	753	699	-
Stage 2	-	-	-	-	-	-	683	685	-	351	372	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1302	-	-	1222	-	-	112	163	711	155	166	798
Mov Cap-2 Maneuver	-	-	-	-	-	-	112	163	-	155	166	-
Stage 1	-	-	-	-	-	-	282	300	-	602	696	-
Stage 2	-	-	-	-	-	-	546	682	-	276	297	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.7	0.1	22.2	15.6
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	119	711	1302	-	-	1222	-	-	155	798
HCM Lane V/C Ratio	0.049	0.01	0.201	-	-	0.004	-	-	0.25	0.198
HCM Control Delay (s)	36.8	10.1	8.5	-	-	8	-	-	35.8	10.6
HCM Lane LOS	E	B	A	-	-	A	-	-	E	B
HCM 95th %tile Q(veh)	0.2	0	0.8	-	-	0	-	-	0.9	0.7

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	135	279	0	0	449	225	27	1	144	0	0	0
Future Vol, veh/h	135	279	0	0	449	225	27	1	144	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	153	317	0	0	510	256	31	1	164	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	766	0	-	-	-	0	1261	1389	317
Stage 1	-	-	-	-	-	-	623	623	-
Stage 2	-	-	-	-	-	-	638	766	-
Critical Hdwy	4.12	-	-	-	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	847	-	0	0	-	-	188	142	724
Stage 1	-	-	0	0	-	-	535	478	-
Stage 2	-	-	0	0	-	-	526	412	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	847	-	-	-	-	-	154	0	724
Mov Cap-2 Maneuver	-	-	-	-	-	-	154	0	-
Stage 1	-	-	-	-	-	-	438	0	-
Stage 2	-	-	-	-	-	-	526	0	-

Approach	EB	WB	NB
HCM Control Delay, s	3.3	0	15.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	154	724	847	-	-	-
HCM Lane V/C Ratio	0.207	0.226	0.181	-	-	-
HCM Control Delay (s)	34.4	11.4	10.2	-	-	-
HCM Lane LOS	D	B	B	-	-	-
HCM 95th %tile Q(veh)	0.7	0.9	0.7	-	-	-

Intersection	
Int Delay, s/veh	22.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	287	83	270	187	0	0	0	0	156	0	129
Future Vol, veh/h	0	287	83	270	187	0	0	0	0	156	0	129
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	150	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	312	90	293	203	0	0	0	0	170	0	140

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	-	0	0	402	0	0			1146	1191	203
Stage 1	-	-	-	-	-	-			789	789	-
Stage 2	-	-	-	-	-	-			357	402	-
Critical Hdwy	-	-	-	4.12	-	-			6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-			5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-			3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1157	-	0			220	187	838
Stage 1	0	-	-	-	-	0			448	402	-
Stage 2	0	-	-	-	-	0			708	600	-
Platoon blocked, %		-	-		-						
Mov Cap-1 Maneuver	-	-	-	1157	-	-			~ 164	0	838
Mov Cap-2 Maneuver	-	-	-	-	-	-			~ 164	0	-
Stage 1	-	-	-	-	-	-			448	0	-
Stage 2	-	-	-	-	-	-			529	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	5.4	79
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	1157	-	164	838
HCM Lane V/C Ratio	-	-	0.254	-	1.034	0.167
HCM Control Delay (s)	-	-	9.2	-	135.9	10.2
HCM Lane LOS	-	-	A	-	F	B
HCM 95th %tile Q(veh)	-	-	1	-	8.3	0.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	4.3
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	59	259	99	283
Demand Flow Rate, veh/h	60	264	101	289
Vehicles Circulating, veh/h	337	19	283	146
Vehicles Exiting, veh/h	98	365	114	137
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.9	3.4	4.4	5.3
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	R	LT	R	LTR	LTR
Assumed Moves	LT	R	LT	R	LTR	LTR
RT Channelized						
Lane Util	0.867	0.133	0.542	0.458	1.000	1.000
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.609	2.609
Critical Headway, s	4.544	4.544	4.544	4.544	4.976	4.976
Entry Flow, veh/h	52	8	143	121	101	289
Cap Entry Lane, veh/h	1045	1045	1396	1396	1034	1189
Entry HV Adj Factor	0.980	1.000	0.982	0.983	0.977	0.980
Flow Entry, veh/h	51	8	140	119	99	283
Cap Entry, veh/h	1025	1045	1370	1373	1010	1165
V/C Ratio	0.050	0.008	0.102	0.087	0.098	0.243
Control Delay, s/veh	3.9	3.5	3.4	3.3	4.4	5.3
LOS	A	A	A	A	A	A
95th %tile Queue, veh	0	0	0	0	0	1

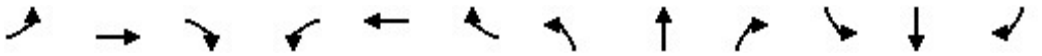
Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	85	47	66	60	14
Future Vol, veh/h	13	85	47	66	60	14
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	25
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	93	52	73	66	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	125	0	-	0	210	89
Stage 1	-	-	-	-	89	-
Stage 2	-	-	-	-	121	-
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	1462	-	-	-	778	969
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	904	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1462	-	-	-	770	969
Mov Cap-2 Maneuver	-	-	-	-	770	-
Stage 1	-	-	-	-	925	-
Stage 2	-	-	-	-	904	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1462	-	-	-	770	969
HCM Lane V/C Ratio	0.01	-	-	-	0.086	0.016
HCM Control Delay (s)	7.5	0	-	-	10.1	8.8
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.3	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	42	53	134	38	121	45	440	129	124	611	21
Future Volume (veh/h)	42	42	53	134	38	121	45	440	129	124	611	21
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	48	60	152	43	138	51	500	147	141	694	24
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	208	181	318	308	375	318	82	920	779	178	1020	865
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.05	0.49	0.49	0.10	0.55	0.55
Sat Flow, veh/h	621	905	1585	1286	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	96	0	60	152	43	138	51	500	147	141	694	24
Grp Sat Flow(s),veh/h/ln	1526	0	1585	1286	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	1.1	0.0	2.0	7.4	1.2	5.0	1.8	12.1	3.4	5.0	17.4	0.5
Cycle Q Clear(g_c), s	3.1	0.0	2.0	10.4	1.2	5.0	1.8	12.1	3.4	5.0	17.4	0.5
Prop In Lane	0.50		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	389	0	318	308	375	318	82	920	779	178	1020	865
V/C Ratio(X)	0.25	0.00	0.19	0.49	0.11	0.43	0.62	0.54	0.19	0.79	0.68	0.03
Avail Cap(c_a), veh/h	501	0	439	406	518	439	137	920	779	225	1020	865
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	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	21.9	0.0	21.6	26.4	21.3	22.8	30.4	11.5	9.3	28.6	10.7	6.8
Incr Delay (d2), s/veh	0.3	0.0	0.3	1.2	0.1	0.9	7.3	2.3	0.5	13.8	3.7	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	1.2	0.0	0.7	2.2	0.5	1.8	0.9	4.9	1.1	2.7	6.9	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.3	0.0	21.9	27.6	21.4	23.7	37.8	13.8	9.8	42.4	14.3	6.9
LnGrp LOS	C	A	C	C	C	C	D	B	A	D	B	A
Approach Vol, veh/h		156			333			698			859	
Approach Delay, s/veh		22.1			25.2			14.7			18.7	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	36.5		17.5	7.5	40.0		17.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	8.2	25.3		18.0	5.0	28.5		18.0				
Max Q Clear Time (g_c+I1), s	7.0	14.1		5.1	3.8	19.4		12.4				
Green Ext Time (p_c), s	0.0	2.9		0.5	0.0	3.3		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		18.7	
HCM 6th LOS		B	

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	126	303	8	1	405	53	10	0	6	46	4	233
Future Vol, veh/h	126	303	8	1	405	53	10	0	6	46	4	233
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	-	80	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	150	361	10	1	482	63	12	0	7	55	5	277

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	545	0	0	371	0	0	1323	1213	366	1186	1187	514
Stage 1	-	-	-	-	-	-	666	666	-	516	516	-
Stage 2	-	-	-	-	-	-	657	547	-	670	671	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1024	-	-	1188	-	-	133	182	679	166	188	560
Stage 1	-	-	-	-	-	-	449	457	-	542	534	-
Stage 2	-	-	-	-	-	-	454	517	-	446	455	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1024	-	-	1188	-	-	58	155	679	146	160	560
Mov Cap-2 Maneuver	-	-	-	-	-	-	58	155	-	146	160	-
Stage 1	-	-	-	-	-	-	383	390	-	463	533	-
Stage 2	-	-	-	-	-	-	227	516	-	377	389	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.6	0	55.4	22.5
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	58	679	1024	-	-	1188	-	-	147	560
HCM Lane V/C Ratio	0.205	0.011	0.146	-	-	0.001	-	-	0.405	0.495
HCM Control Delay (s)	82.4	10.4	9.1	-	-	8	-	-	45.2	17.6
HCM Lane LOS	F	B	A	-	-	A	-	-	E	C
HCM 95th %tile Q(veh)	0.7	0	0.5	-	-	0	-	-	1.8	2.7

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	121	287	0	0	227	102	79	0	248	0	0	0
Future Vol, veh/h	121	287	0	0	227	102	79	0	248	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	127	302	0	0	239	107	83	0	261	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	346	0	-	-	-	0	849	902	302
Stage 1	-	-	-	-	-	-	556	556	-
Stage 2	-	-	-	-	-	-	293	346	-
Critical Hdwy	4.12	-	-	-	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1213	-	0	0	-	-	331	277	738
Stage 1	-	-	0	0	-	-	574	513	-
Stage 2	-	-	0	0	-	-	757	635	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1213	-	-	-	-	-	296	0	738
Mov Cap-2 Maneuver	-	-	-	-	-	-	296	0	-
Stage 1	-	-	-	-	-	-	514	0	-
Stage 2	-	-	-	-	-	-	757	0	-

Approach	EB	WB	NB
HCM Control Delay, s	2.5	0	14.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	296	738	1213	-	-	-
HCM Lane V/C Ratio	0.281	0.354	0.105	-	-	-
HCM Control Delay (s)	21.8	12.5	8.3	-	-	-
HCM Lane LOS	C	B	A	-	-	-
HCM 95th %tile Q(veh)	1.1	1.6	0.4	-	-	-

Intersection	
Int Delay, s/veh	7.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	248	68	99	215	0	0	0	0	161	0	171
Future Vol, veh/h	0	248	68	99	215	0	0	0	0	161	0	171
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	150	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	270	74	108	234	0	0	0	0	175	0	186

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	-	0	0	344	0	0			757	794	234
Stage 1	-	-	-	-	-	-			450	450	-
Stage 2	-	-	-	-	-	-			307	344	-
Critical Hdwy	-	-	-	4.12	-	-			6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-			5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-			3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1215	-	0			375	321	805
Stage 1	0	-	-	-	-	0			642	572	-
Stage 2	0	-	-	-	-	0			746	637	-
Platoon blocked, %		-	-		-						
Mov Cap-1 Maneuver	-	-	-	1215	-	-			342	0	805
Mov Cap-2 Maneuver	-	-	-	-	-	-			342	0	-
Stage 1	-	-	-	-	-	-			642	0	-
Stage 2	-	-	-	-	-	-			680	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	2.6	18.2
HCM LOS			C

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	1215	-	342	805
HCM Lane V/C Ratio	-	-	0.089	-	0.512	0.231
HCM Control Delay (s)	-	-	8.3	-	26.1	10.8
HCM Lane LOS	-	-	A	-	D	B
HCM 95th %tile Q(veh)	-	-	0.3	-	2.8	0.9

Intersection	
Intersection Delay, s/veh	4.0
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	44	324	214	121
Demand Flow Rate, veh/h	45	330	218	123
Vehicles Circulating, veh/h	261	59	132	170
Vehicles Exiting, veh/h	32	291	174	219
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.5	3.7	4.6	4.1
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	R	LT	R	LTR	LTR
Assumed Moves	LT	R	LT	R	LTR	LTR
RT Channelized						
Lane Util	0.711	0.289	0.476	0.524	1.000	1.000
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.609	2.609
Critical Headway, s	4.544	4.544	4.544	4.544	4.976	4.976
Entry Flow, veh/h	32	13	157	173	218	123
Cap Entry Lane, veh/h	1120	1120	1346	1346	1206	1160
Entry HV Adj Factor	0.981	1.000	0.979	0.983	0.982	0.980
Flow Entry, veh/h	31	13	154	170	214	121
Cap Entry, veh/h	1099	1120	1317	1323	1185	1137
V/C Ratio	0.029	0.012	0.117	0.129	0.181	0.106
Control Delay, s/veh	3.5	3.3	3.7	3.8	4.6	4.1
LOS	A	A	A	A	A	A
95th %tile Queue, veh	0	0	0	0	1	0

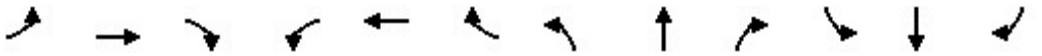
Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	54	72	90	45	16
Future Vol, veh/h	21	54	72	90	45	16
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	25
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	64	85	106	53	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	191	0	-	0	252	138
Stage 1	-	-	-	-	138	-
Stage 2	-	-	-	-	114	-
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	1383	-	-	-	737	910
Stage 1	-	-	-	-	889	-
Stage 2	-	-	-	-	911	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1383	-	-	-	723	910
Mov Cap-2 Maneuver	-	-	-	-	723	-
Stage 1	-	-	-	-	872	-
Stage 2	-	-	-	-	911	-

Approach	EB	WB	SB
HCM Control Delay, s	2.1	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1383	-	-	-	723	910
HCM Lane V/C Ratio	0.018	-	-	-	0.073	0.021
HCM Control Delay (s)	7.7	0	-	-	10.4	9
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	31	34	61	52	121	66	649	140	117	381	28
Future Volume (veh/h)	28	31	34	61	52	121	66	649	140	117	381	28
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	36	39	70	60	139	76	746	161	134	438	32
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	135	125	193	211	228	193	98	1130	957	168	1203	1019
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.06	0.60	0.60	0.09	0.64	0.64
Sat Flow, veh/h	526	1027	1585	1325	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	68	0	39	70	60	139	76	746	161	134	438	32
Grp Sat Flow(s),veh/h/ln	1554	0	1585	1325	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.5	0.0	1.7	3.8	2.2	6.3	3.2	19.7	3.4	5.5	8.2	0.6
Cycle Q Clear(g_c), s	2.6	0.0	1.7	6.5	2.2	6.3	3.2	19.7	3.4	5.5	8.2	0.6
Prop In Lane	0.47		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	260	0	193	211	228	193	98	1130	957	168	1203	1019
V/C Ratio(X)	0.26	0.00	0.20	0.33	0.26	0.72	0.77	0.66	0.17	0.80	0.36	0.03
Avail Cap(c_a), veh/h	433	0	380	367	449	380	209	1130	957	178	1203	1019
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	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	30.0	0.0	29.7	33.0	29.9	31.7	35.0	9.8	6.5	33.3	6.2	4.9
Incr Delay (d2), s/veh	0.5	0.0	0.5	0.9	0.6	5.0	12.1	3.0	0.4	21.1	0.9	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	1.1	0.0	0.6	1.2	1.0	2.6	1.7	7.6	1.1	3.3	2.9	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.6	0.0	30.2	34.0	30.5	36.7	47.1	12.8	6.9	54.4	7.1	4.9
LnGrp LOS	C	A	C	C	C	D	D	B	A	D	A	A
Approach Vol, veh/h		107			269			983			604	
Approach Delay, s/veh		30.4			34.6			14.5			17.5	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.6	49.8		13.6	8.6	52.7		13.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	7.5	36.0		18.0	8.8	34.7		18.0				
Max Q Clear Time (g_c+I1), s	7.5	21.7		4.6	5.2	10.2		8.5				
Green Ext Time (p_c), s	0.0	5.1		0.3	0.0	2.9		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			19.0									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	227	284	11	4	197	36	4	1	6	33	0	138
Future Vol, veh/h	227	284	11	4	197	36	4	1	6	33	0	138
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	-	80	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	267	334	13	5	232	42	5	1	7	39	0	162

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	274	0	0	347	0	0	1219	1159	341	1142	1144	253
Stage 1	-	-	-	-	-	-	875	875	-	263	263	-
Stage 2	-	-	-	-	-	-	344	284	-	879	881	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1289	-	-	1212	-	-	157	196	701	177	200	786
Stage 1	-	-	-	-	-	-	344	367	-	742	691	-
Stage 2	-	-	-	-	-	-	671	676	-	342	365	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1289	-	-	1212	-	-	104	155	701	146	158	786
Mov Cap-2 Maneuver	-	-	-	-	-	-	104	155	-	146	158	-
Stage 1	-	-	-	-	-	-	273	291	-	588	688	-
Stage 2	-	-	-	-	-	-	530	673	-	267	289	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.7	0.1	23.4	16.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	111	701	1289	-	-	1212	-	-	146	786
HCM Lane V/C Ratio	0.053	0.01	0.207	-	-	0.004	-	-	0.266	0.207
HCM Control Delay (s)	39.2	10.2	8.5	-	-	8	-	-	38.4	10.8
HCM Lane LOS	E	B	A	-	-	A	-	-	E	B
HCM 95th %tile Q(veh)	0.2	0	0.8	-	-	0	-	-	1	0.8

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	76	91	13	122	49	37
Future Vol, veh/h	76	91	13	122	49	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	75	-	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	83	99	14	133	53	40

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	182	0	244	83
Stage 1	-	-	-	-	83	-
Stage 2	-	-	-	-	161	-
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	-	-	1393	-	744	976
Stage 1	-	-	-	-	940	-
Stage 2	-	-	-	-	868	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1393	-	737	976
Mov Cap-2 Maneuver	-	-	-	-	737	-
Stage 1	-	-	-	-	940	-
Stage 2	-	-	-	-	859	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	824	-	-	1393	-
HCM Lane V/C Ratio	0.113	-	-	0.01	-
HCM Control Delay (s)	9.9	-	-	7.6	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	49	67	13	98	37	35
Future Vol, veh/h	49	67	13	98	37	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	-	-	75	-	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	53	73	14	107	40	38

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	126	0	225	90
Stage 1	-	-	-	-	90	-
Stage 2	-	-	-	-	135	-
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	-	-	1460	-	763	968
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	891	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1460	-	755	968
Mov Cap-2 Maneuver	-	-	-	-	755	-
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	882	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	845	-	-	1460	-
HCM Lane V/C Ratio	0.093	-	-	0.01	-
HCM Control Delay (s)	9.7	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	36	41	27	75	33	52
Future Vol, veh/h	36	41	27	75	33	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
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	39	45	29	82	36	57

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	205	65	93	0	-	0
Stage 1	65	-	-	-	-	-
Stage 2	140	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	783	999	1501	-	-	-
Stage 1	958	-	-	-	-	-
Stage 2	887	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	768	999	1501	-	-	-
Mov Cap-2 Maneuver	768	-	-	-	-	-
Stage 1	940	-	-	-	-	-
Stage 2	887	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1501	-	876	-	-
HCM Lane V/C Ratio	0.02	-	0.096	-	-
HCM Control Delay (s)	7.4	-	9.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	191	295	0	0	465	225	67	1	144	0	0	0
Future Vol, veh/h	191	295	0	0	465	225	67	1	144	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	217	335	0	0	528	256	76	1	164	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	784	0	-	-	-	0	1425	1553	335
Stage 1	-	-	-	-	-	-	769	769	-
Stage 2	-	-	-	-	-	-	656	784	-
Critical Hdwy	4.12	-	-	-	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	834	-	0	0	-	-	149	113	707
Stage 1	-	-	0	0	-	-	457	411	-
Stage 2	-	-	0	0	-	-	516	404	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	834	-	-	-	-	-	110	0	707
Mov Cap-2 Maneuver	-	-	-	-	-	-	110	0	-
Stage 1	-	-	-	-	-	-	338	0	-
Stage 2	-	-	-	-	-	-	516	0	-

Approach	EB	WB	NB
HCM Control Delay, s	4.3	0	37.6
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	110	707	834	-	-	-
HCM Lane V/C Ratio	0.702	0.231	0.26	-	-	-
HCM Control Delay (s)	92.6	11.6	10.8	-	-	-
HCM Lane LOS	F	B	B	-	-	-
HCM 95th %tile Q(veh)	3.7	0.9	1	-	-	-

Intersection	
Int Delay, s/veh	33.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	359	123	270	242	0	0	0	0	156	0	184
Future Vol, veh/h	0	359	123	270	242	0	0	0	0	156	0	184
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	150	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	390	134	293	263	0	0	0	0	170	0	200

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	524	0	0	1306	1373	263
Stage 1	-	-	-	-	-	-	849	849	-
Stage 2	-	-	-	-	-	-	457	524	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1043	-	0	176	146	776
Stage 1	0	-	-	-	-	0	419	377	-
Stage 2	0	-	-	-	-	0	638	530	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1043	-	-	~ 127	0	776
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 127	0	-
Stage 1	-	-	-	-	-	-	419	0	-
Stage 2	-	-	-	-	-	-	459	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	5.2	125.1
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	1043	-	127	776
HCM Lane V/C Ratio	-	-	0.281	-	1.335	0.258
HCM Control Delay (s)	-	-	9.8	-	259.5	11.2
HCM Lane LOS	-	-	A	-	F	B
HCM 95th %tile Q(veh)	-	-	1.2	-	11.1	1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	5.2
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	68	382	242	292
Demand Flow Rate, veh/h	69	390	246	298
Vehicles Circulating, veh/h	472	36	283	281
Vehicles Exiting, veh/h	107	493	258	145
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.4	4.0	5.8	6.4
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	R	LT	R	LTR	LTR
Assumed Moves	LT	R	LT	R	LTR	LTR
RT Channelized						
Lane Util	0.754	0.246	0.690	0.310	1.000	1.000
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.609	2.609
Critical Headway, s	4.544	4.544	4.544	4.544	4.976	4.976
Entry Flow, veh/h	52	17	269	121	246	298
Cap Entry Lane, veh/h	924	924	1374	1374	1034	1036
Entry HV Adj Factor	0.980	1.000	0.979	0.983	0.982	0.980
Flow Entry, veh/h	51	17	263	119	242	292
Cap Entry, veh/h	906	924	1346	1352	1015	1015
V/C Ratio	0.056	0.018	0.196	0.088	0.238	0.288
Control Delay, s/veh	4.5	4.1	4.3	3.4	5.8	6.4
LOS	A	A	A	A	A	A
95th %tile Queue, veh	0	0	1	0	1	1

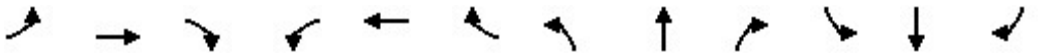
Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	85	47	90	84	22
Future Vol, veh/h	21	85	47	90	84	22
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	25
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	93	52	99	92	24

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	151	0	-	0	241	102
Stage 1	-	-	-	-	102	-
Stage 2	-	-	-	-	139	-
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	1430	-	-	-	747	953
Stage 1	-	-	-	-	922	-
Stage 2	-	-	-	-	888	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1430	-	-	-	734	953
Mov Cap-2 Maneuver	-	-	-	-	734	-
Stage 1	-	-	-	-	906	-
Stage 2	-	-	-	-	888	-

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1430	-	-	-	734	953
HCM Lane V/C Ratio	0.016	-	-	-	0.126	0.025
HCM Control Delay (s)	7.6	0	-	-	10.6	8.9
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.4	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	50	69	134	46	121	61	480	129	124	651	21
Future Volume (veh/h)	42	50	69	134	46	121	61	480	129	124	651	21
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	57	78	152	52	138	69	545	147	141	740	24
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	197	205	327	307	386	327	98	908	770	178	993	842
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.05	0.49	0.49	0.10	0.53	0.53
Sat Flow, veh/h	561	991	1585	1254	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	105	0	78	152	52	138	69	545	147	141	740	24
Grp Sat Flow(s),veh/h/ln	1552	0	1585	1254	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	0.9	0.0	2.7	7.6	1.5	4.9	2.5	13.8	3.4	5.0	20.0	0.5
Cycle Q Clear(g_c), s	3.3	0.0	2.7	10.8	1.5	4.9	2.5	13.8	3.4	5.0	20.0	0.5
Prop In Lane	0.46		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	401	0	327	307	386	327	98	908	770	178	993	842
V/C Ratio(X)	0.26	0.00	0.24	0.50	0.13	0.42	0.71	0.60	0.19	0.79	0.75	0.03
Avail Cap(c_a), veh/h	506	0	439	395	518	439	137	908	770	225	993	842
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	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	21.7	0.0	21.5	26.3	21.0	22.4	30.2	12.1	9.5	28.6	11.8	7.3
Incr Delay (d2), s/veh	0.3	0.0	0.4	1.2	0.2	0.9	9.2	2.9	0.6	13.8	5.1	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	1.3	0.0	1.0	2.2	0.6	1.8	1.3	5.7	1.2	2.7	8.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.0	0.0	21.9	27.6	21.2	23.3	39.4	15.1	10.0	42.4	16.9	7.3
LnGrp LOS	C	A	C	C	C	C	D	B	B	D	B	A
Approach Vol, veh/h		183			342			761			905	
Approach Delay, s/veh		22.0			24.9			16.3			20.6	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	36.1		17.9	8.1	39.0		17.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	8.2	25.3		18.0	5.0	28.5		18.0				
Max Q Clear Time (g_c+I1), s	7.0	15.8		5.3	4.5	22.0		12.8				
Green Ext Time (p_c), s	0.0	2.9		0.6	0.0	2.8		0.6				

Intersection Summary												
HCM 6th Ctrl Delay			19.9									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	7.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	131	314	8	1	416	53	10	0	6	46	4	238
Future Vol, veh/h	131	314	8	1	416	53	10	0	6	46	4	238
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	-	80	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	156	374	10	1	495	63	12	0	7	55	5	283

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	558	0	0	384	0	0	1364	1251	379	1224	1225	527
Stage 1	-	-	-	-	-	-	691	691	-	529	529	-
Stage 2	-	-	-	-	-	-	673	560	-	695	696	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1013	-	-	1174	-	-	125	172	668	156	179	551
Stage 1	-	-	-	-	-	-	435	446	-	533	527	-
Stage 2	-	-	-	-	-	-	445	511	-	433	443	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1013	-	-	1174	-	-	52	145	668	136	151	551
Mov Cap-2 Maneuver	-	-	-	-	-	-	52	145	-	136	151	-
Stage 1	-	-	-	-	-	-	368	377	-	451	526	-
Stage 2	-	-	-	-	-	-	214	510	-	362	375	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.7	0	62.5	23.7
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	52	668	1013	-	-	1174	-	-	137	551
HCM Lane V/C Ratio	0.229	0.011	0.154	-	-	0.001	-	-	0.434	0.514
HCM Control Delay (s)	93.7	10.4	9.2	-	-	8.1	-	-	50.1	18.2
HCM Lane LOS	F	B	A	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	0.8	0	0.5	-	-	0	-	-	1.9	2.9

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	133	96	14	154	61	40
Future Vol, veh/h	133	96	14	154	61	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	-	150	75	-	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	145	104	15	167	66	43

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	249	0	342	145
Stage 1	-	-	-	-	145	-
Stage 2	-	-	-	-	197	-
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	-	-	1317	-	654	902
Stage 1	-	-	-	-	882	-
Stage 2	-	-	-	-	836	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1317	-	647	902
Mov Cap-2 Maneuver	-	-	-	-	647	-
Stage 1	-	-	-	-	882	-
Stage 2	-	-	-	-	827	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	729	-	-	1317	-
HCM Lane V/C Ratio	0.151	-	-	0.012	-
HCM Control Delay (s)	10.8	-	-	7.8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	103	70	14	123	46	38
Future Vol, veh/h	103	70	14	123	46	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	75	-	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	112	76	15	134	50	41

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	188	0	314	150
Stage 1	-	-	-	-	150	-
Stage 2	-	-	-	-	164	-
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	-	-	1386	-	679	896
Stage 1	-	-	-	-	878	-
Stage 2	-	-	-	-	865	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1386	-	672	896
Mov Cap-2 Maneuver	-	-	-	-	672	-
Stage 1	-	-	-	-	878	-
Stage 2	-	-	-	-	855	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	758	-	-	1386	-
HCM Lane V/C Ratio	0.12	-	-	0.011	-
HCM Control Delay (s)	10.4	-	-	7.6	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	43	46	28	93	87	54
Future Vol, veh/h	43	46	28	93	87	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
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	47	50	30	101	95	59

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	286	125	154	0	-	0
Stage 1	125	-	-	-	-	-
Stage 2	161	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	704	926	1426	-	-	-
Stage 1	901	-	-	-	-	-
Stage 2	868	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	689	926	1426	-	-	-
Mov Cap-2 Maneuver	689	-	-	-	-	-
Stage 1	882	-	-	-	-	-
Stage 2	868	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	1.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1426	-	794	-	-
HCM Lane V/C Ratio	0.021	-	0.122	-	-
HCM Control Delay (s)	7.6	-	10.2	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

Intersection	
Int Delay, s/veh	6.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	102	394	0	0	312	148	70	0	360	0	0	0
Future Vol, veh/h	102	394	0	0	312	148	70	0	360	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	107	415	0	0	328	156	74	0	379	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	484	0	-	-	-	0	1035	1113	415
Stage 1	-	-	-	-	-	-	629	629	-
Stage 2	-	-	-	-	-	-	406	484	-
Critical Hdwy	4.12	-	-	-	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1079	-	0	0	-	-	257	208	637
Stage 1	-	-	0	0	-	-	531	475	-
Stage 2	-	-	0	0	-	-	673	552	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1079	-	-	-	-	-	232	0	637
Mov Cap-2 Maneuver	-	-	-	-	-	-	232	0	-
Stage 1	-	-	-	-	-	-	478	0	-
Stage 2	-	-	-	-	-	-	673	0	-

Approach	EB	WB	NB
HCM Control Delay, s	1.8	0	20.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	232	637	1079	-	-	-
HCM Lane V/C Ratio	0.318	0.595	0.1	-	-	-
HCM Control Delay (s)	27.6	18.6	8.7	-	-	-
HCM Lane LOS	D	C	A	-	-	-
HCM 95th %tile Q(veh)	1.3	3.9	0.3	-	-	-

Intersection	
Int Delay, s/veh	16.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	264	45	144	249	0	0	0	0	233	0	186
Future Vol, veh/h	0	264	45	144	249	0	0	0	0	233	0	186
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	150	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	278	47	152	262	0	0	0	0	245	0	196

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	-	0	0	325	0	0			868	891	262
Stage 1	-	-	-	-	-	-			566	566	-
Stage 2	-	-	-	-	-	-			302	325	-
Critical Hdwy	-	-	-	4.12	-	-			6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-			5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-			3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1235	-	0			323	282	777
Stage 1	0	-	-	-	-	0			568	507	-
Stage 2	0	-	-	-	-	0			750	649	-
Platoon blocked, %		-	-		-						
Mov Cap-1 Maneuver	-	-	-	1235	-	-			283	0	777
Mov Cap-2 Maneuver	-	-	-	-	-	-			283	0	-
Stage 1	-	-	-	-	-	-			568	0	-
Stage 2	-	-	-	-	-	-			658	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	3	40.7
HCM LOS			E

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	1235	-	283	777
HCM Lane V/C Ratio	-	-	0.123	-	0.867	0.252
HCM Control Delay (s)	-	-	8.3	-	64.3	11.2
HCM Lane LOS	-	-	A	-	F	B
HCM 95th %tile Q(veh)	-	-	0.4	-	7.5	1

Intersection	
Intersection Delay, s/veh	3.9
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	48	303	109	153
Demand Flow Rate, veh/h	49	310	111	156
Vehicles Circulating, veh/h	205	56	177	82
Vehicles Exiting, veh/h	33	232	77	284
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.4	3.9	4.0	3.9
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	R	LT	R	LTR	LTR
Assumed Moves	LT	R	LT	R	LTR	LTR
RT Channelized						
Lane Util	0.857	0.143	0.245	0.755	1.000	1.000
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.609	2.609
Critical Headway, s	4.544	4.544	4.544	4.544	4.976	4.976
Entry Flow, veh/h	42	7	76	234	111	156
Cap Entry Lane, veh/h	1178	1178	1350	1350	1152	1269
Entry HV Adj Factor	0.981	1.000	0.980	0.979	0.982	0.978
Flow Entry, veh/h	41	7	74	229	109	153
Cap Entry, veh/h	1156	1178	1322	1321	1132	1241
V/C Ratio	0.036	0.006	0.056	0.173	0.096	0.123
Control Delay, s/veh	3.4	3.1	3.2	4.2	4.0	3.9
LOS	A	A	A	A	A	A
95th %tile Queue, veh	0	0	0	1	0	0

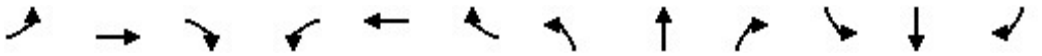
Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	78	104	99	38	15
Future Vol, veh/h	20	78	104	99	38	15
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	25
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	92	122	116	45	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	238	0	-	0	320	180
Stage 1	-	-	-	-	180	-
Stage 2	-	-	-	-	140	-
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	1329	-	-	-	673	863
Stage 1	-	-	-	-	851	-
Stage 2	-	-	-	-	887	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1329	-	-	-	660	863
Mov Cap-2 Maneuver	-	-	-	-	660	-
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	887	-

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1329	-	-	-	660	863
HCM Lane V/C Ratio	0.018	-	-	-	0.068	0.02
HCM Control Delay (s)	7.8	0	-	-	10.9	9.3
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	36	32	88	65	175	74	887	203	170	508	41
Future Volume (veh/h)	41	36	32	88	65	175	74	887	203	170	508	41
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	38	34	93	68	184	78	934	214	179	535	43
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	152	116	245	208	289	245	101	1082	917	208	1195	1013
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.06	0.58	0.58	0.12	0.64	0.64
Sat Flow, veh/h	584	753	1585	1328	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	81	0	34	93	68	184	78	934	214	179	535	43
Grp Sat Flow(s),veh/h/ln	1337	0	1585	1328	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	2.4	0.0	1.7	6.1	2.9	10.0	3.9	37.8	5.9	8.9	13.0	0.9
Cycle Q Clear(g_c), s	5.2	0.0	1.7	11.4	2.9	10.0	3.9	37.8	5.9	8.9	13.0	0.9
Prop In Lane	0.53		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	0	245	208	289	245	101	1082	917	208	1195	1013
V/C Ratio(X)	0.30	0.00	0.14	0.45	0.24	0.75	0.77	0.86	0.23	0.86	0.45	0.04
Avail Cap(c_a), veh/h	331	0	317	268	374	317	188	1082	917	208	1195	1013
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	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	34.2	0.0	32.9	39.5	33.4	36.4	41.9	16.0	9.2	39.0	8.2	6.0
Incr Delay (d2), s/veh	0.6	0.0	0.3	1.5	0.4	7.1	11.9	9.1	0.6	28.8	1.2	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	1.6	0.0	0.7	2.1	1.3	4.3	2.0	17.0	2.0	5.5	5.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	0.0	33.1	41.0	33.8	43.5	53.8	25.1	9.8	67.8	9.4	6.1
LnGrp LOS	C	A	C	D	C	D	D	C	A	E	A	A
Approach Vol, veh/h		115			345			1226			757	
Approach Delay, s/veh		34.3			40.9			24.2			23.1	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	56.6		18.4	9.6	62.0		18.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.5	48.0		18.0	9.5	49.0		18.0				
Max Q Clear Time (g_c+I1), s	10.9	39.8		7.2	5.9	15.0		13.4				
Green Ext Time (p_c), s	0.0	4.7		0.3	0.0	4.1		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		26.7	
HCM 6th LOS		C	

Intersection	
Int Delay, s/veh	8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	323	399	16	6	271	52	6	1	9	48	0	194
Future Vol, veh/h	323	399	16	6	271	52	6	1	9	48	0	194
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	-	80	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	340	420	17	6	285	55	6	1	9	51	0	204

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	340	0	0	437	0	0	1536	1461	429	1439	1442	313
Stage 1	-	-	-	-	-	-	1109	1109	-	325	325	-
Stage 2	-	-	-	-	-	-	427	352	-	1114	1117	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1219	-	-	1123	-	-	95	129	626	111	132	727
Stage 1	-	-	-	-	-	-	254	285	-	687	649	-
Stage 2	-	-	-	-	-	-	606	632	-	253	283	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1219	-	-	1123	-	-	53	92	626	85	95	727
Mov Cap-2 Maneuver	-	-	-	-	-	-	53	92	-	85	95	-
Stage 1	-	-	-	-	-	-	183	205	-	495	646	-
Stage 2	-	-	-	-	-	-	433	629	-	179	204	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4	0.1	40.6	28.6
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	56	626	1219	-	-	1123	-	-	85	727
HCM Lane V/C Ratio	0.132	0.015	0.279	-	-	0.006	-	-	0.594	0.281
HCM Control Delay (s)	78.8	10.8	9.1	-	-	8.2	-	-	96.3	11.9
HCM Lane LOS	F	B	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	0.4	0	1.1	-	-	0	-	-	2.7	1.2

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	196	405	0	0	651	326	39	1	209	0	0	0
Future Vol, veh/h	196	405	0	0	651	326	39	1	209	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	206	426	0	0	685	343	41	1	220	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	1028	0	-	-	-	0	1695	1866	426
Stage 1	-	-	-	-	-	-	838	838	-
Stage 2	-	-	-	-	-	-	857	1028	-
Critical Hdwy	4.12	-	-	-	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	676	-	0	0	-	-	102	73	628
Stage 1	-	-	0	0	-	-	424	382	-
Stage 2	-	-	0	0	-	-	416	311	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	676	-	-	-	-	-	71	0	628
Mov Cap-2 Maneuver	-	-	-	-	-	-	71	0	-
Stage 1	-	-	-	-	-	-	295	0	-
Stage 2	-	-	-	-	-	-	416	0	-

Approach	EB	WB	NB
HCM Control Delay, s	4.1	0	29.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	71	628	676	-	-	-
HCM Lane V/C Ratio	0.593	0.35	0.305	-	-	-
HCM Control Delay (s)	112.2	13.8	12.6	-	-	-
HCM Lane LOS	F	B	B	-	-	-
HCM 95th %tile Q(veh)	2.6	1.6	1.3	-	-	-

Intersection	
Int Delay, s/veh	179.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	416	120	392	271	0	0	0	0	226	0	187
Future Vol, veh/h	0	416	120	392	271	0	0	0	0	226	0	187
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	150	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	438	126	413	285	0	0	0	0	238	0	197

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	564	0	0	1612	1675	285
Stage 1	-	-	-	-	-	-	1111	1111	-
Stage 2	-	-	-	-	-	-	501	564	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1008	-	0	~ 115	95	754
Stage 1	0	-	-	-	-	0	315	285	-
Stage 2	0	-	-	-	-	0	609	508	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1008	-	-	~ 68	0	754
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 68	0	-
Stage 1	-	-	-	-	-	-	315	0	-
Stage 2	-	-	-	-	-	-	359	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	6.5	$ 690.3
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	1008	-	68	754
HCM Lane V/C Ratio	-	-	0.409	-	3.498	0.261
HCM Control Delay (s)	-	-	11	-	$ 1252	11.5
HCM Lane LOS	-	-	B	-	F	B
HCM 95th %tile Q(veh)	-	-	2	-	24.8	1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	5.2
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	82	354	134	388
Demand Flow Rate, veh/h	83	361	136	395
Vehicles Circulating, veh/h	461	25	387	199
Vehicles Exiting, veh/h	133	498	157	187
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.6	3.7	5.3	6.8
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	R	LT	R	LTR	LTR
Assumed Moves	LT	R	LT	R	LTR	LTR
RT Channelized						
Lane Util	0.867	0.133	0.540	0.460	1.000	1.000
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.609	2.609
Critical Headway, s	4.544	4.544	4.544	4.544	4.976	4.976
Entry Flow, veh/h	72	11	195	166	136	395
Cap Entry Lane, veh/h	933	933	1388	1388	930	1126
Entry HV Adj Factor	0.980	1.000	0.979	0.982	0.982	0.982
Flow Entry, veh/h	71	11	191	163	134	388
Cap Entry, veh/h	915	933	1358	1363	913	1106
V/C Ratio	0.077	0.012	0.140	0.120	0.146	0.351
Control Delay, s/veh	4.6	4.0	3.8	3.6	5.3	6.8
LOS	A	A	A	A	A	A
95th %tile Queue, veh	0	0	0	0	1	2

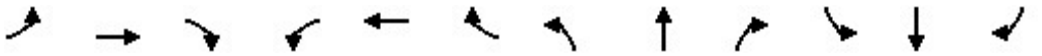
Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	123	68	96	87	20
Future Vol, veh/h	19	123	68	96	87	20
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	25
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	135	75	105	96	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	180	0	-	0	305	128
Stage 1	-	-	-	-	128	-
Stage 2	-	-	-	-	177	-
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	1396	-	-	-	687	922
Stage 1	-	-	-	-	898	-
Stage 2	-	-	-	-	854	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1396	-	-	-	676	922
Mov Cap-2 Maneuver	-	-	-	-	676	-
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	854	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1396	-	-	-	676	922
HCM Lane V/C Ratio	0.015	-	-	-	0.141	0.024
HCM Control Delay (s)	7.6	0	-	-	11.2	9
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.5	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	61	77	194	55	175	65	638	187	180	886	30
Future Volume (veh/h)	61	61	77	194	55	175	65	638	187	180	886	30
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	64	81	204	58	184	68	672	197	189	933	32
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	187	169	326	243	384	326	87	970	822	224	1114	944
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.05	0.52	0.52	0.13	0.60	0.60
Sat Flow, veh/h	620	822	1585	1243	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	128	0	81	204	58	184	68	672	197	189	933	32
Grp Sat Flow(s),veh/h/ln	1442	0	1585	1243	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	4.4	0.0	3.9	11.8	2.3	9.4	3.4	24.3	6.2	9.3	36.2	0.8
Cycle Q Clear(g_c), s	6.7	0.0	3.9	18.5	2.3	9.4	3.4	24.3	6.2	9.3	36.2	0.8
Prop In Lane	0.50		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	356	0	326	243	384	326	87	970	822	224	1114	944
V/C Ratio(X)	0.36	0.00	0.25	0.84	0.15	0.56	0.78	0.69	0.24	0.84	0.84	0.03
Avail Cap(c_a), veh/h	356	0	326	243	384	326	109	970	822	263	1114	944
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	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	30.9	0.0	29.9	40.3	29.3	32.1	42.3	16.3	11.9	38.5	14.7	7.5
Incr Delay (d2), s/veh	0.6	0.0	0.4	22.4	0.2	2.3	24.0	4.1	0.7	18.9	7.6	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	2.4	0.0	1.5	6.0	1.0	3.7	2.1	10.7	2.2	5.2	15.8	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.5	0.0	30.3	62.7	29.5	34.4	66.4	20.4	12.6	57.4	22.3	7.6
LnGrp LOS	C	A	C	E	C	C	E	C	B	E	C	A
Approach Vol, veh/h		209			446			937			1154	
Approach Delay, s/veh		31.1			46.7			22.1			27.6	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.8	51.2		23.0	8.9	58.1		23.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	13.3	44.7		18.5	5.5	52.5		18.5				
Max Q Clear Time (g_c+I1), s	11.3	26.3		8.7	5.4	38.2		20.5				
Green Ext Time (p_c), s	0.1	5.2		0.7	0.0	6.4		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			29.1									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	20.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	183	439	12	1	587	77	15	0	9	67	6	338
Future Vol, veh/h	183	439	12	1	587	77	15	0	9	67	6	338
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	-	80	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	193	462	13	1	618	81	16	0	9	71	6	356

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	699	0	0	475	0	0	1697	1556	469	1520	1522	659
Stage 1	-	-	-	-	-	-	855	855	-	661	661	-
Stage 2	-	-	-	-	-	-	842	701	-	859	861	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	898	-	-	1087	-	-	73	113	594	97	118	464
Stage 1	-	-	-	-	-	-	353	375	-	452	460	-
Stage 2	-	-	-	-	-	-	359	441	-	351	372	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	898	-	-	1087	-	-	~ 14	89	594	80	93	464
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 14	89	-	80	93	-
Stage 1	-	-	-	-	-	-	277	294	-	355	460	-
Stage 2	-	-	-	-	-	-	82	441	-	271	292	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.9	0	$ 412.5	59.2
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	14	594	898	-	-	1087	-	-	81	464
HCM Lane V/C Ratio	1.128	0.016	0.215	-	-	0.001	-	-	0.949	0.767
HCM Control Delay (s)	$ 653.3	11.2	10.1	-	-	8.3	-	-	176.1	34
HCM Lane LOS	F	B	B	-	-	A	-	-	F	D
HCM 95th %tile Q(veh)	2.5	0	0.8	-	-	0	-	-	5.1	6.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	8.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	153	409	0	0	324	148	101	0	360	0	0	0
Future Vol, veh/h	153	409	0	0	324	148	101	0	360	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	161	431	0	0	341	156	106	0	379	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	497	0	-	-	-	0	1172	1250	431
Stage 1	-	-	-	-	-	-	753	753	-
Stage 2	-	-	-	-	-	-	419	497	-
Critical Hdwy	4.12	-	-	-	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1067	-	0	0	-	-	213	173	624
Stage 1	-	-	0	0	-	-	465	417	-
Stage 2	-	-	0	0	-	-	664	545	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1067	-	-	-	-	-	181	0	624
Mov Cap-2 Maneuver	-	-	-	-	-	-	181	0	-
Stage 1	-	-	-	-	-	-	395	0	-
Stage 2	-	-	-	-	-	-	664	0	-

Approach	EB	WB	NB
HCM Control Delay, s	2.4	0	26
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	181	624	1067	-	-	-
HCM Lane V/C Ratio	0.587	0.607	0.151	-	-	-
HCM Control Delay (s)	49.8	19.3	9	-	-	-
HCM Lane LOS	E	C	A	-	-	-
HCM 95th %tile Q(veh)	3.2	4.1	0.5	-	-	-

Intersection	
Int Delay, s/veh	24.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	330	82	144	292	0	0	0	0	233	0	229
Future Vol, veh/h	0	330	82	144	292	0	0	0	0	233	0	229
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	150	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	347	86	152	307	0	0	0	0	245	0	241

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	433	0	0	1001	1044	307
Stage 1	-	-	-	-	-	-	611	611	-
Stage 2	-	-	-	-	-	-	390	433	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1127	-	0	269	229	733
Stage 1	0	-	-	-	-	0	542	484	-
Stage 2	0	-	-	-	-	0	684	582	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1127	-	-	~ 233	0	733
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 233	0	-
Stage 1	-	-	-	-	-	-	542	0	-
Stage 2	-	-	-	-	-	-	592	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	2.9	66
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	1127	-	233	733
HCM Lane V/C Ratio	-	-	0.134	-	1.053	0.329
HCM Control Delay (s)	-	-	8.7	-	118.7	12.3
HCM Lane LOS	-	-	A	-	F	B
HCM 95th %tile Q(veh)	-	-	0.5	-	10.4	1.4

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	4.4
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	55	395	232	159
Demand Flow Rate, veh/h	56	404	236	163
Vehicles Circulating, veh/h	306	72	177	184
Vehicles Exiting, veh/h	41	341	185	292
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.7	4.1	5.0	4.5
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	R	LT	R	LTR	LTR
Assumed Moves	LT	R	LT	R	LTR	LTR
RT Channelized						
Lane Util	0.750	0.250	0.421	0.579	1.000	1.000
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.609	2.609
Critical Headway, s	4.544	4.544	4.544	4.544	4.976	4.976
Entry Flow, veh/h	42	14	170	234	236	163
Cap Entry Lane, veh/h	1075	1075	1330	1330	1152	1144
Entry HV Adj Factor	0.981	1.000	0.979	0.979	0.983	0.978
Flow Entry, veh/h	41	14	166	229	232	159
Cap Entry, veh/h	1054	1075	1302	1302	1132	1119
V/C Ratio	0.039	0.013	0.128	0.176	0.205	0.143
Control Delay, s/veh	3.7	3.5	3.8	4.2	5.0	4.5
LOS	A	A	A	A	A	A
95th %tile Queue, veh	0	0	0	1	1	0

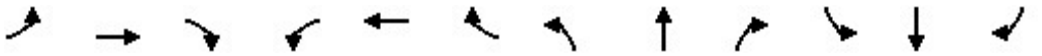
Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	27	78	104	121	57	21
Future Vol, veh/h	27	78	104	121	57	21
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	25
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	82	109	127	60	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	236	0	-	0	311	173
Stage 1	-	-	-	-	173	-
Stage 2	-	-	-	-	138	-
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	1331	-	-	-	681	871
Stage 1	-	-	-	-	857	-
Stage 2	-	-	-	-	889	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1331	-	-	-	666	871
Mov Cap-2 Maneuver	-	-	-	-	666	-
Stage 1	-	-	-	-	838	-
Stage 2	-	-	-	-	889	-

Approach	EB	WB	SB
HCM Control Delay, s	2	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1331	-	-	-	666	871
HCM Lane V/C Ratio	0.021	-	-	-	0.09	0.025
HCM Control Delay (s)	7.8	0	-	-	10.9	9.2
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	42	44	88	72	175	89	924	203	170	539	41
Future Volume (veh/h)	41	42	44	88	72	175	89	924	203	170	539	41
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	44	46	93	76	184	94	973	214	179	567	43
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	145	130	252	207	297	252	121	1083	918	200	1166	988
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.07	0.58	0.58	0.11	0.62	0.62
Sat Flow, veh/h	539	817	1585	1307	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	87	0	46	93	76	184	94	973	214	179	567	43
Grp Sat Flow(s),veh/h/ln	1356	0	1585	1307	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	2.3	0.0	2.3	6.2	3.2	9.9	4.7	41.1	5.9	8.9	14.7	0.9
Cycle Q Clear(g_c), s	5.5	0.0	2.3	11.7	3.2	9.9	4.7	41.1	5.9	8.9	14.7	0.9
Prop In Lane	0.49		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	275	0	252	207	297	252	121	1083	918	200	1166	988
V/C Ratio(X)	0.32	0.00	0.18	0.45	0.26	0.73	0.78	0.90	0.23	0.90	0.49	0.04
Avail Cap(c_a), veh/h	333	0	317	261	374	317	206	1083	918	200	1166	988
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	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	34.0	0.0	32.8	39.5	33.2	36.0	41.3	16.6	9.2	39.4	9.2	6.6
Incr Delay (d2), s/veh	0.7	0.0	0.3	1.5	0.5	6.3	10.3	11.7	0.6	36.4	1.5	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	1.7	0.0	0.9	2.1	1.5	4.2	2.4	19.0	2.0	5.9	5.8	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	0.0	33.1	41.0	33.6	42.4	51.6	28.3	9.8	75.8	10.6	6.6
LnGrp LOS	C	A	C	D	C	D	D	C	A	E	B	A
Approach Vol, veh/h		133			353			1281			789	
Approach Delay, s/veh		34.1			40.1			26.9			25.2	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.6	56.6		18.8	10.6	60.6		18.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.1	48.4		18.0	10.4	48.1		18.0				
Max Q Clear Time (g_c+I1), s	10.9	43.1		7.5	6.7	16.7		13.7				
Green Ext Time (p_c), s	0.0	3.5		0.4	0.1	4.3		0.5				

Intersection Summary												
HCM 6th Ctrl Delay			28.6									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	8.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	327	408	16	6	281	52	6	1	9	48	0	198
Future Vol, veh/h	327	408	16	6	281	52	6	1	9	48	0	198
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	-	80	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	344	429	17	6	296	55	6	1	9	51	0	208

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	351	0	0	446	0	0	1566	1489	438	1467	1470	324
Stage 1	-	-	-	-	-	-	1126	1126	-	336	336	-
Stage 2	-	-	-	-	-	-	440	363	-	1131	1134	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1208	-	-	1114	-	-	90	124	619	106	127	717
Stage 1	-	-	-	-	-	-	249	280	-	678	642	-
Stage 2	-	-	-	-	-	-	596	625	-	247	278	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1208	-	-	1114	-	-	50	88	619	80	90	717
Mov Cap-2 Maneuver	-	-	-	-	-	-	50	88	-	80	90	-
Stage 1	-	-	-	-	-	-	178	200	-	485	639	-
Stage 2	-	-	-	-	-	-	420	622	-	173	199	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4	0.1	42.7	30.7
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	53	619	1208	-	-	1114	-	-	80	717
HCM Lane V/C Ratio	0.139	0.015	0.285	-	-	0.006	-	-	0.632	0.291
HCM Control Delay (s)	83.6	10.9	9.2	-	-	8.2	-	-	107.3	12.1
HCM Lane LOS	F	B	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	0.4	0	1.2	-	-	0	-	-	2.9	1.2

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	99	91	13	154	49	37
Future Vol, veh/h	99	91	13	154	49	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	75	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	104	96	14	162	52	39

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	200	0	294	104
Stage 1	-	-	-	-	104	-
Stage 2	-	-	-	-	190	-
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	-	-	1372	-	697	951
Stage 1	-	-	-	-	920	-
Stage 2	-	-	-	-	842	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1372	-	690	951
Mov Cap-2 Maneuver	-	-	-	-	690	-
Stage 1	-	-	-	-	920	-
Stage 2	-	-	-	-	834	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	782	-	-	1372	-
HCM Lane V/C Ratio	0.116	-	-	0.01	-
HCM Control Delay (s)	10.2	-	-	7.7	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	72	67	13	130	37	35
Future Vol, veh/h	72	67	13	130	37	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	-	-	75	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	76	71	14	137	39	37

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	147	0	277	112
Stage 1	-	-	-	-	112	-
Stage 2	-	-	-	-	165	-
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	-	-	1435	-	713	941
Stage 1	-	-	-	-	913	-
Stage 2	-	-	-	-	864	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1435	-	706	941
Mov Cap-2 Maneuver	-	-	-	-	706	-
Stage 1	-	-	-	-	913	-
Stage 2	-	-	-	-	855	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	804	-	-	1435	-
HCM Lane V/C Ratio	0.094	-	-	0.01	-
HCM Control Delay (s)	9.9	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	36	41	27	107	56	52
Future Vol, veh/h	36	41	27	107	56	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	43	28	113	59	55

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	256	87	114	0	-	0
Stage 1	87	-	-	-	-	-
Stage 2	169	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	733	971	1475	-	-	-
Stage 1	936	-	-	-	-	-
Stage 2	861	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	719	971	1475	-	-	-
Mov Cap-2 Maneuver	719	-	-	-	-	-
Stage 1	918	-	-	-	-	-
Stage 2	861	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	1.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1475	-	834	-	-
HCM Lane V/C Ratio	0.019	-	0.097	-	-
HCM Control Delay (s)	7.5	-	9.8	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	24.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	252	421	0	0	667	326	79	1	209	0	0	0
Future Vol, veh/h	252	421	0	0	667	326	79	1	209	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	265	443	0	0	702	343	83	1	220	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	1045	0	-	-	-	0	1847	2018	443
Stage 1	-	-	-	-	-	-	973	973	-
Stage 2	-	-	-	-	-	-	874	1045	-
Critical Hdwy	4.12	-	-	-	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	666	-	0	0	-	-	~ 82	58	615
Stage 1	-	-	0	0	-	-	366	330	-
Stage 2	-	-	0	0	-	-	408	306	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	666	-	-	-	-	-	~ 49	0	615
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 49	0	-
Stage 1	-	-	-	-	-	-	220	0	-
Stage 2	-	-	-	-	-	-	408	0	-

Approach	EB	WB	NB
HCM Control Delay, s	5.2	0	156.4
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	49	615	666	-	-	-
HCM Lane V/C Ratio	1.719	0.358	0.398	-	-	-
HCM Control Delay (s)	$ 528.2	14.1	13.9	-	-	-
HCM Lane LOS	F	B	B	-	-	-
HCM 95th %tile Q(veh)	8.2	1.6	1.9	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	232.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	488	160	392	326	0	0	0	0	226	0	242
Future Vol, veh/h	0	488	160	392	326	0	0	0	0	226	0	242
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	150	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	514	168	413	343	0	0	0	0	238	0	255

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	682	0	0	1767	1851	343
Stage 1	-	-	-	-	-	-	1169	1169	-
Stage 2	-	-	-	-	-	-	598	682	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	911	-	0	~ 92	74	700
Stage 1	0	-	-	-	-	0	295	267	-
Stage 2	0	-	-	-	-	0	549	450	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	911	-	-	~ 50	0	700
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 50	0	-
Stage 1	-	-	-	-	-	-	295	0	-
Stage 2	-	-	-	-	-	-	300	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	6.7	$ 902.5
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	911	-	50	700
HCM Lane V/C Ratio	-	-	0.453	-	4.758	0.364
HCM Control Delay (s)	-	-	12.2	-	$ 1854.8	13.1
HCM Lane LOS	-	-	B	-	F	B
HCM 95th %tile Q(veh)	-	-	2.4	-	26.8	1.7

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	6.3
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	90	471	270	396
Demand Flow Rate, veh/h	91	480	276	403
Vehicles Circulating, veh/h	588	43	387	327
Vehicles Exiting, veh/h	142	620	292	196
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.1	4.3	7.1	8.3
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	R	LT	R	LTR	LTR
Assumed Moves	LT	R	LT	R	LTR	LTR
RT Channelized						
Lane Util	0.791	0.209	0.654	0.346	1.000	1.000
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.609	2.609
Critical Headway, s	4.544	4.544	4.544	4.544	4.976	4.976
Entry Flow, veh/h	72	19	314	166	276	403
Cap Entry Lane, veh/h	832	832	1366	1366	930	989
Entry HV Adj Factor	0.980	1.000	0.980	0.982	0.980	0.982
Flow Entry, veh/h	71	19	308	163	270	396
Cap Entry, veh/h	815	832	1339	1341	911	970
V/C Ratio	0.087	0.023	0.230	0.122	0.297	0.408
Control Delay, s/veh	5.3	4.5	4.6	3.7	7.1	8.3
LOS	A	A	A	A	A	A
95th %tile Queue, veh	0	0	1	0	1	2

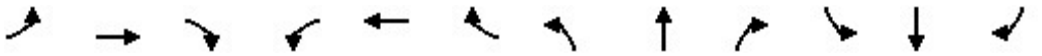
Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	27	123	68	120	111	28
Future Vol, veh/h	27	123	68	120	111	28
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	25
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	129	72	126	117	29

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	198	0	-	0	320	135
Stage 1	-	-	-	-	135	-
Stage 2	-	-	-	-	185	-
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	1375	-	-	-	673	914
Stage 1	-	-	-	-	891	-
Stage 2	-	-	-	-	847	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1375	-	-	-	658	914
Mov Cap-2 Maneuver	-	-	-	-	658	-
Stage 1	-	-	-	-	871	-
Stage 2	-	-	-	-	847	-

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1375	-	-	-	658	914
HCM Lane V/C Ratio	0.021	-	-	-	0.178	0.032
HCM Control Delay (s)	7.7	0	-	-	11.6	9.1
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	69	93	194	63	175	81	678	187	180	926	30
Future Volume (veh/h)	61	69	93	194	63	175	81	678	187	180	926	30
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	73	98	204	66	184	85	714	197	189	975	32
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	177	182	326	233	384	326	109	970	822	224	1091	925
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.06	0.52	0.52	0.13	0.58	0.58
Sat Flow, veh/h	574	885	1585	1214	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	137	0	98	204	66	184	85	714	197	189	975	32
Grp Sat Flow(s),veh/h/ln	1459	0	1585	1214	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	4.6	0.0	4.7	11.3	2.6	9.4	4.2	26.8	6.2	9.3	40.8	0.8
Cycle Q Clear(g_c), s	7.2	0.0	4.7	18.5	2.6	9.4	4.2	26.8	6.2	9.3	40.8	0.8
Prop In Lane	0.47		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	359	0	326	233	384	326	109	970	822	224	1091	925
V/C Ratio(X)	0.38	0.00	0.30	0.88	0.17	0.56	0.78	0.74	0.24	0.84	0.89	0.03
Avail Cap(c_a), veh/h	359	0	326	233	384	326	109	970	822	263	1091	925
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	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	31.1	0.0	30.3	40.8	29.4	32.1	41.7	16.9	11.9	38.5	16.3	8.0
Incr Delay (d2), s/veh	0.7	0.0	0.5	29.0	0.2	2.3	29.9	5.0	0.7	18.9	11.2	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	2.6	0.0	1.8	6.4	1.2	3.7	2.7	11.9	2.2	5.2	18.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.8	0.0	30.8	69.8	29.6	34.4	71.6	21.8	12.6	57.4	27.5	8.0
LnGrp LOS	C	A	C	E	C	C	E	C	B	E	C	A
Approach Vol, veh/h		235			454			996			1196	
Approach Delay, s/veh		31.4			49.6			24.3			31.7	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.8	51.2		23.0	10.0	57.0		23.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	13.3	44.7		18.5	5.5	52.5		18.5				
Max Q Clear Time (g_c+I1), s	11.3	28.8		9.2	6.2	42.8		20.5				
Green Ext Time (p_c), s	0.1	5.3		0.7	0.0	5.2		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			31.9									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	24.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	188	450	12	1	598	77	15	0	9	67	6	343
Future Vol, veh/h	188	450	12	1	598	77	15	0	9	67	6	343
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	-	80	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	198	474	13	1	629	81	16	0	9	71	6	361

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	710	0	0	487	0	0	1732	1589	481	1553	1555	670
Stage 1	-	-	-	-	-	-	877	877	-	672	672	-
Stage 2	-	-	-	-	-	-	855	712	-	881	883	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	889	-	-	1076	-	-	69	108	585	92	113	457
Stage 1	-	-	-	-	-	-	343	366	-	445	454	-
Stage 2	-	-	-	-	-	-	353	436	-	341	364	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	889	-	-	1076	-	-	~ 11	84	585	75	88	457
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 11	84	-	75	88	-
Stage 1	-	-	-	-	-	-	267	284	-	346	454	-
Stage 2	-	-	-	-	-	-	73	436	-	261	283	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3	0	$ 566.9	65.6
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	11	585	889	-	-	1076	-	-	76	457
HCM Lane V/C Ratio	1.435	0.016	0.223	-	-	0.001	-	-	1.011	0.79
HCM Control Delay (s)	$ 900.3	11.3	10.2	-	-	8.3	-	-	201.7	36.6
HCM Lane LOS	F	B	B	-	-	A	-	-	F	E
HCM 95th %tile Q(veh)	2.8	0	0.9	-	-	0	-	-	5.4	7.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	178	96	14	194	61	40
Future Vol, veh/h	178	96	14	194	61	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	-	150	75	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	187	101	15	204	64	42

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	288	0	421	187
Stage 1	-	-	-	-	187	-
Stage 2	-	-	-	-	234	-
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	-	-	1274	-	589	855
Stage 1	-	-	-	-	845	-
Stage 2	-	-	-	-	805	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1274	-	582	855
Mov Cap-2 Maneuver	-	-	-	-	582	-
Stage 1	-	-	-	-	845	-
Stage 2	-	-	-	-	795	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	666	-	-	1274	-
HCM Lane V/C Ratio	0.16	-	-	0.012	-
HCM Control Delay (s)	11.4	-	-	7.9	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.6	-	-	0	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	148	70	14	163	46	38
Future Vol, veh/h	148	70	14	163	46	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	75	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	156	74	15	172	48	40

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	230	0	395	193
Stage 1	-	-	-	-	193	-
Stage 2	-	-	-	-	202	-
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	-	-	1338	-	610	849
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	832	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1338	-	603	849
Mov Cap-2 Maneuver	-	-	-	-	603	-
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	823	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	694	-	-	1338	-
HCM Lane V/C Ratio	0.127	-	-	0.011	-
HCM Control Delay (s)	10.9	-	-	7.7	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0	-

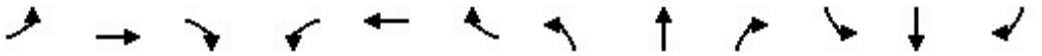
Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	43	46	28	133	132	54
Future Vol, veh/h	43	46	28	133	132	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	48	29	140	139	57

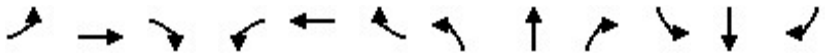
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	366	168	196	0	-	0
Stage 1	168	-	-	-	-	-
Stage 2	198	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	634	876	1377	-	-	-
Stage 1	862	-	-	-	-	-
Stage 2	835	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	621	876	1377	-	-	-
Mov Cap-2 Maneuver	621	-	-	-	-	-
Stage 1	844	-	-	-	-	-
Stage 2	835	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1377	-	731	-	-
HCM Lane V/C Ratio	0.021	-	0.128	-	-
HCM Control Delay (s)	7.7	-	10.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-



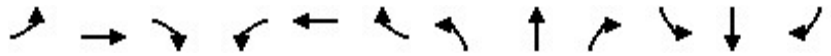
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	121	287	0	0	227	102	79	0	248	0	0	0
Future Volume (veh/h)	121	287	0	0	227	102	79	0	248	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	127	302	0	0	239	107	83	0	261			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	337	622	0	0	407	182	832	0	741			
Arrive On Green	0.67	0.67	0.00	0.00	0.33	0.33	0.47	0.00	0.47			
Sat Flow, veh/h	1035	1870	0	0	1224	548	1781	0	1585			
Grp Volume(v), veh/h	127	302	0	0	0	346	83	0	261			
Grp Sat Flow(s),veh/h/ln	1035	1870	0	0	0	1772	1781	0	1585			
Q Serve(g_s), s	4.8	3.6	0.0	0.0	0.0	7.3	1.2	0.0	4.7			
Cycle Q Clear(g_c), s	12.1	3.6	0.0	0.0	0.0	7.3	1.2	0.0	4.7			
Prop In Lane	1.00		0.00	0.00		0.31	1.00		1.00			
Lane Grp Cap(c), veh/h	337	622	0	0	0	590	832	0	741			
V/C Ratio(X)	0.38	0.49	0.00	0.00	0.00	0.59	0.10	0.00	0.35			
Avail Cap(c_a), veh/h	406	748	0	0	0	709	832	0	741			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.73	0.73	0.00	0.00	0.00	0.95	1.00	0.00	1.00			
Uniform Delay (d), s/veh	10.2	5.6	0.0	0.0	0.0	12.4	6.7	0.0	7.6			
Incr Delay (d2), s/veh	0.5	0.4	0.0	0.0	0.0	0.9	0.2	0.0	1.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.6	1.0	0.0	0.0	0.0	2.5	0.4	0.0	1.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.7	6.1	0.0	0.0	0.0	13.3	6.9	0.0	9.0			
LnGrp LOS	B	A	A	A	A	B	A	A	A			
Approach Vol, veh/h		429			346			344				
Approach Delay, s/veh		7.4			13.3			8.5				
Approach LOS		A			B			A				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		25.5		19.5				19.5				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		18.0		18.0				18.0				
Max Q Clear Time (g_c+I1), s		6.7		14.1				9.3				
Green Ext Time (p_c), s		1.0		0.9				1.4				
Intersection Summary												
HCM 6th Ctrl Delay			9.6									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	248	68	99	215	0	0	0	0	161	0	171
Future Volume (veh/h)	0	248	68	99	215	0	0	0	0	161	0	171
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	270	74	108	234	0				175	0	186
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	444	122	318	588	0				865	0	770
Arrive On Green	0.00	0.31	0.31	0.63	0.63	0.00				0.49	0.00	0.49
Sat Flow, veh/h	0	1413	387	1037	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	0	344	108	234	0				175	0	186
Grp Sat Flow(s),veh/h/ln	0	0	1801	1037	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	0.0	7.3	4.1	2.8	0.0				2.5	0.0	3.1
Cycle Q Clear(g_c), s	0.0	0.0	7.3	11.4	2.8	0.0				2.5	0.0	3.1
Prop In Lane	0.00		0.22	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	0	566	318	588	0				865	0	770
V/C Ratio(X)	0.00	0.00	0.61	0.34	0.40	0.00				0.20	0.00	0.24
Avail Cap(c_a), veh/h	0	0	720	407	748	0				865	0	770
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.74	0.74	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	13.1	11.0	6.2	0.0				6.6	0.0	6.7
Incr Delay (d2), s/veh	0.0	0.0	1.1	0.5	0.3	0.0				0.5	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	0.0	2.6	0.5	0.8	0.0				0.8	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	14.1	11.5	6.6	0.0				7.1	0.0	7.5
LnGrp LOS	A	A	B	B	A	A				A	A	A
Approach Vol, veh/h		344			342						361	
Approach Delay, s/veh		14.1			8.1						7.3	
Approach LOS		B			A						A	

Timer - Assigned Phs		4		6		8
Phs Duration (G+Y+Rc), s		18.6		26.4		18.6
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		9.3		5.1		13.4
Green Ext Time (p_c), s		1.3		1.3		0.7

Intersection Summary	
HCM 6th Ctrl Delay	9.8
HCM 6th LOS	A



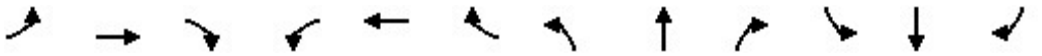
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	227	284	11	4	197	36	4	1	6	33	0	138
Future Volume (veh/h)	227	284	11	4	197	36	4	1	6	33	0	138
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	267	334	13	5	232	42	5	1	7	39	0	162
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	460	704	27	407	606	110	349	58	676	441	0	676
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.43	0.43	0.43	0.43	0.00	0.43
Sat Flow, veh/h	1105	1788	70	1034	1541	279	509	137	1585	697	0	1585
Grp Volume(v), veh/h	267	0	347	5	0	274	6	0	7	39	0	162
Grp Sat Flow(s),veh/h/ln	1105	0	1858	1034	0	1820	646	0	1585	697	0	1585
Q Serve(g_s), s	11.4	0.0	7.0	0.2	0.0	5.4	0.1	0.0	0.1	1.1	0.0	3.3
Cycle Q Clear(g_c), s	16.7	0.0	7.0	7.1	0.0	5.4	11.3	0.0	0.1	11.9	0.0	3.3
Prop In Lane	1.00		0.04	1.00		0.15	0.83		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	460	0	731	407	0	716	408	0	676	441	0	676
V/C Ratio(X)	0.58	0.00	0.47	0.01	0.00	0.38	0.01	0.00	0.01	0.09	0.00	0.24
Avail Cap(c_a), veh/h	500	0	799	445	0	783	408	0	676	441	0	676
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)	0.90	0.00	0.90	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.8	0.0	11.3	14.0	0.0	10.8	9.4	0.0	8.3	16.0	0.0	9.2
Incr Delay (d2), s/veh	1.3	0.0	0.4	0.0	0.0	0.3	0.1	0.0	0.0	0.4	0.0	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	2.6	0.0	2.4	0.0	0.0	1.9	0.0	0.0	0.0	0.4	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	0.0	11.7	14.0	0.0	11.2	9.5	0.0	8.3	16.4	0.0	10.0
LnGrp LOS	B	A	B	B	A	B	A	A	A	B	A	A
Approach Vol, veh/h		614			279			13			201	
Approach Delay, s/veh		14.5			11.2			8.8			11.2	
Approach LOS		B			B			A			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	25.8	24.2	25.8	24.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.5	21.5	19.5	21.5
Max Q Clear Time (g_c+I1), s	13.3	18.7	13.9	9.1
Green Ext Time (p_c), s	0.0	0.9	0.3	1.3

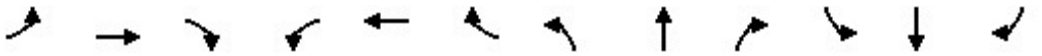
Intersection Summary	
HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
1: SR-29 NB Ramp & Lakeport Blvd

11/06/2020



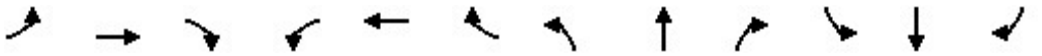
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	191	295	0	0	465	225	67	1	144	0	0	0
Future Volume (veh/h)	191	295	0	0	465	225	67	1	144	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	217	335	0	0	528	256	76	1	164			
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	276	1079	0	0	686	333	501	7	451			
Arrive On Green	0.58	0.58	0.00	0.00	0.58	0.58	0.28	0.28	0.28			
Sat Flow, veh/h	690	1870	0	0	1190	577	1759	23	1585			
Grp Volume(v), veh/h	217	335	0	0	0	784	77	0	164			
Grp Sat Flow(s),veh/h/ln	690	1870	0	0	0	1767	1782	0	1585			
Q Serve(g_s), s	15.6	6.0	0.0	0.0	0.0	21.9	2.1	0.0	5.4			
Cycle Q Clear(g_c), s	37.5	6.0	0.0	0.0	0.0	21.9	2.1	0.0	5.4			
Prop In Lane	1.00		0.00	0.00		0.33	0.99		1.00			
Lane Grp Cap(c), veh/h	276	1079	0	0	0	1019	507	0	451			
V/C Ratio(X)	0.79	0.31	0.00	0.00	0.00	0.77	0.15	0.00	0.36			
Avail Cap(c_a), veh/h	276	1079	0	0	0	1019	507	0	451			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.77	0.77	0.00	0.00	0.00	0.75	1.00	0.00	1.00			
Uniform Delay (d), s/veh	26.6	7.1	0.0	0.0	0.0	10.5	17.4	0.0	18.6			
Incr Delay (d2), s/veh	11.0	0.1	0.0	0.0	0.0	2.7	0.6	0.0	2.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.1	2.0	0.0	0.0	0.0	7.5	0.9	0.0	2.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	7.2	0.0	0.0	0.0	13.2	18.0	0.0	20.8			
LnGrp LOS	D	A	A	A	A	B	B	A	C			
Approach Vol, veh/h		552			784			241				
Approach Delay, s/veh		19.2			13.2			19.9				
Approach LOS		B			B			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		23.0		42.0				42.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		18.5		37.5				37.5				
Max Q Clear Time (g_c+I1), s		7.4		39.5				23.9				
Green Ext Time (p_c), s		0.7		0.0				5.0				
Intersection Summary												
HCM 6th Ctrl Delay			16.3									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	359	123	270	242	0	0	0	0	156	0	184
Future Volume (veh/h)	0	359	123	270	242	0	0	0	0	156	0	184
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	390	134	293	263	0				170	0	200
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	699	240	408	982	0				579	0	515
Arrive On Green	0.00	0.52	0.52	0.52	0.52	0.00				0.32	0.00	0.32
Sat Flow, veh/h	0	1331	457	878	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	0	524	293	263	0				170	0	200
Grp Sat Flow(s),veh/h/ln	0	0	1788	878	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	0.0	11.8	19.7	4.7	0.0				4.3	0.0	5.8
Cycle Q Clear(g_c), s	0.0	0.0	11.8	31.5	4.7	0.0				4.3	0.0	5.8
Prop In Lane	0.00		0.26	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	0	939	408	982	0				579	0	515
V/C Ratio(X)	0.00	0.00	0.56	0.72	0.27	0.00				0.29	0.00	0.39
Avail Cap(c_a), veh/h	0	0	939	408	982	0				579	0	515
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.59	0.59	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	9.6	20.3	7.9	0.0				15.1	0.0	15.6
Incr Delay (d2), s/veh	0.0	0.0	0.7	3.6	0.1	0.0				1.3	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	3.9	4.1	1.6	0.0				1.8	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	10.3	23.9	8.0	0.0				16.4	0.0	17.8
LnGrp LOS	A	A	B	C	A	A				B	A	B
Approach Vol, veh/h		524			556						370	
Approach Delay, s/veh		10.3			16.4						17.2	
Approach LOS		B			B						B	

Timer - Assigned Phs		4		6		8						
Phs Duration (G+Y+Rc), s		36.0		24.0		36.0						
Change Period (Y+Rc), s		4.5		4.5		4.5						
Max Green Setting (Gmax), s		31.5		19.5		31.5						
Max Q Clear Time (g_c+I1), s		13.8		7.8		33.5						
Green Ext Time (p_c), s		3.3		1.3		0.0						

Intersection Summary												
HCM 6th Ctrl Delay		14.4										
HCM 6th LOS		B										



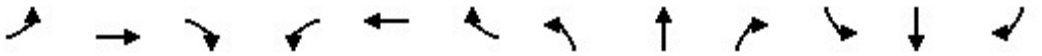
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	314	8	1	416	53	10	0	6	46	4	238
Future Volume (veh/h)	131	314	8	1	416	53	10	0	6	46	4	238
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	156	374	10	1	495	63	12	0	7	55	5	283
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	320	833	22	449	747	95	134	0	598	133	7	598
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.38	0.00	0.38	0.38	0.38	0.38
Sat Flow, veh/h	851	1813	48	999	1626	207	8	0	1585	20	18	1585
Grp Volume(v), veh/h	156	0	384	1	0	558	12	0	7	60	0	283
Grp Sat Flow(s),veh/h/ln	851	0	1862	999	0	1833	8	0	1585	39	0	1585
Q Serve(g_s), s	9.6	0.0	7.7	0.0	0.0	13.0	0.2	0.0	0.2	0.3	0.0	7.4
Cycle Q Clear(g_c), s	22.6	0.0	7.7	7.8	0.0	13.0	20.7	0.0	0.2	20.7	0.0	7.4
Prop In Lane	1.00		0.03	1.00		0.11	1.00		1.00	0.92		1.00
Lane Grp Cap(c), veh/h	320	0	855	449	0	842	134	0	598	140	0	598
V/C Ratio(X)	0.49	0.00	0.45	0.00	0.00	0.66	0.09	0.00	0.01	0.43	0.00	0.47
Avail Cap(c_a), veh/h	340	0	897	472	0	883	134	0	598	140	0	598
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)	0.96	0.00	0.96	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.4	0.0	10.1	12.8	0.0	11.6	27.5	0.0	10.7	25.3	0.0	13.0
Incr Delay (d2), s/veh	1.1	0.0	0.4	0.0	0.0	1.8	1.3	0.0	0.0	9.3	0.0	2.7
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	0.0	2.7	0.0	0.0	4.7	0.2	0.0	0.1	1.1	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.5	0.0	10.5	12.8	0.0	13.3	28.8	0.0	10.8	34.6	0.0	15.7
LnGrp LOS	C	A	B	B	A	B	C	A	B	C	A	B
Approach Vol, veh/h		540			559			19			343	
Approach Delay, s/veh		13.7			13.3			22.1			19.0	
Approach LOS		B			B			C			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.2		29.8		25.2		29.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.5		26.5		19.5		26.5				
Max Q Clear Time (g_c+I1), s		22.7		24.6		22.7		15.0				
Green Ext Time (p_c), s		0.0		0.6		0.0		2.9				

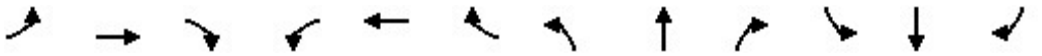
Intersection Summary												
HCM 6th Ctrl Delay			14.9									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
1: SR-29 NB Ramp & Lakeport Blvd

11/06/2020



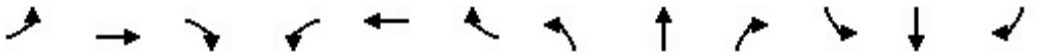
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	409	0	0	324	148	101	0	360	0	0	0
Future Volume (veh/h)	153	409	0	0	324	148	101	0	360	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	161	431	0	0	341	156	106	0	379			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	359	679	0	0	679	575	779	0	693			
Arrive On Green	0.73	0.73	0.00	0.00	0.36	0.36	0.44	0.00	0.44			
Sat Flow, veh/h	901	1870	0	0	1870	1585	1781	0	1585			
Grp Volume(v), veh/h	161	431	0	0	341	156	106	0	379			
Grp Sat Flow(s),veh/h/ln	901	1870	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	7.0	5.3	0.0	0.0	6.4	3.1	1.6	0.0	8.0			
Cycle Q Clear(g_c), s	13.4	5.3	0.0	0.0	6.4	3.1	1.6	0.0	8.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	359	679	0	0	679	575	779	0	693			
V/C Ratio(X)	0.45	0.64	0.00	0.00	0.50	0.27	0.14	0.00	0.55			
Avail Cap(c_a), veh/h	392	748	0	0	748	634	779	0	693			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.64	0.64	0.00	0.00	0.94	0.94	1.00	0.00	1.00			
Uniform Delay (d), s/veh	8.5	4.7	0.0	0.0	11.2	10.1	7.6	0.0	9.4			
Incr Delay (d2), s/veh	0.6	1.0	0.0	0.0	0.5	0.2	0.4	0.0	3.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.6	1.2	0.0	0.0	2.2	0.9	0.5	0.0	2.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.1	5.6	0.0	0.0	11.7	10.4	7.9	0.0	12.5			
LnGrp LOS	A	A	A	A	B	B	A	A	B			
Approach Vol, veh/h		592			497			485				
Approach Delay, s/veh		6.6			11.3			11.5				
Approach LOS		A			B			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		24.2		20.8				20.8				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		18.0		18.0				18.0				
Max Q Clear Time (g_c+I1), s		10.0		15.4				8.4				
Green Ext Time (p_c), s		1.3		0.9				1.8				
Intersection Summary												
HCM 6th Ctrl Delay			9.6									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	330	82	144	292	0	0	0	0	233	0	229
Future Volume (veh/h)	0	330	82	144	292	0	0	0	0	233	0	229
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	347	86	152	307	0				245	0	241
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	559	139	344	723	0				736	0	655
Arrive On Green	0.00	0.39	0.39	0.77	0.77	0.00				0.41	0.00	0.41
Sat Flow, veh/h	0	1447	359	955	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	0	433	152	307	0				245	0	241
Grp Sat Flow(s),veh/h/ln	0	0	1806	955	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	0.0	8.7	6.4	2.5	0.0				4.2	0.0	4.7
Cycle Q Clear(g_c), s	0.0	0.0	8.7	15.2	2.5	0.0				4.2	0.0	4.7
Prop In Lane	0.00		0.20	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	0	698	344	723	0				736	0	655
V/C Ratio(X)	0.00	0.00	0.62	0.44	0.42	0.00				0.33	0.00	0.37
Avail Cap(c_a), veh/h	0	0	722	357	748	0				736	0	655
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.82	0.82	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	11.1	8.8	3.4	0.0				9.0	0.0	9.1
Incr Delay (d2), s/veh	0.0	0.0	1.6	0.7	0.3	0.0				1.2	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	0.0	3.0	0.5	0.6	0.0				1.5	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	12.7	9.5	3.7	0.0				10.2	0.0	10.7
LnGrp LOS	A	A	B	A	A	A				B	A	B
Approach Vol, veh/h		433			459						486	
Approach Delay, s/veh		12.7			5.6						10.5	
Approach LOS		B			A						B	

Timer - Assigned Phs		4		6		8						
Phs Duration (G+Y+Rc), s		21.9		23.1		21.9						
Change Period (Y+Rc), s		4.5		4.5		4.5						
Max Green Setting (Gmax), s		18.0		18.0		18.0						
Max Q Clear Time (g_c+I1), s		10.7		6.7		17.2						
Green Ext Time (p_c), s		1.6		1.8		0.2						

Intersection Summary												
HCM 6th Ctrl Delay		9.6										
HCM 6th LOS		A										



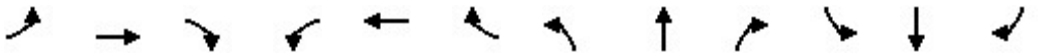
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	327	408	16	6	281	52	6	1	9	48	0	198
Future Volume (veh/h)	327	408	16	6	281	52	6	1	9	48	0	198
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	344	429	17	6	296	55	6	1	9	51	0	208
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	504	882	35	435	757	141	152	17	565	197	0	565
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.36	0.36	0.36	0.36	0.00	0.36
Sat Flow, veh/h	1030	1787	71	944	1534	285	114	48	1585	217	0	1585
Grp Volume(v), veh/h	344	0	446	6	0	351	7	0	9	51	0	208
Grp Sat Flow(s),veh/h/ln	1030	0	1858	944	0	1819	162	0	1585	217	0	1585
Q Serve(g_s), s	18.9	0.0	9.6	0.3	0.0	7.3	0.1	0.0	0.2	2.1	0.0	5.8
Cycle Q Clear(g_c), s	26.1	0.0	9.6	9.9	0.0	7.3	19.2	0.0	0.2	20.2	0.0	5.8
Prop In Lane	1.00		0.04	1.00		0.16	0.86		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	504	0	917	435	0	898	169	0	565	197	0	565
V/C Ratio(X)	0.68	0.00	0.49	0.01	0.00	0.39	0.04	0.00	0.02	0.26	0.00	0.37
Avail Cap(c_a), veh/h	536	0	975	465	0	955	169	0	565	197	0	565
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)	0.80	0.00	0.80	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.7	0.0	10.1	13.4	0.0	9.5	15.4	0.0	12.5	27.8	0.0	14.3
Incr Delay (d2), s/veh	2.6	0.0	0.3	0.0	0.0	0.3	0.5	0.0	0.1	3.1	0.0	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	4.3	0.0	3.3	0.1	0.0	2.5	0.1	0.0	0.1	0.9	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.4	0.0	10.4	13.4	0.0	9.8	15.9	0.0	12.6	30.9	0.0	16.2
LnGrp LOS	C	A	B	B	A	A	B	A	B	C	A	B
Approach Vol, veh/h		790			357			16			259	
Approach Delay, s/veh		14.8			9.9			14.0			19.1	
Approach LOS		B			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.9		34.1		25.9		34.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.5		31.5		19.5		31.5				
Max Q Clear Time (g_c+I1), s		21.2		28.1		22.2		11.9				
Green Ext Time (p_c), s		0.0		1.5		0.0		2.1				

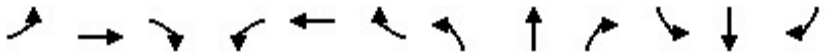
Intersection Summary												
HCM 6th Ctrl Delay			14.3									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
1: SR-29 NB Ramp & Lakeport Blvd

11/06/2020



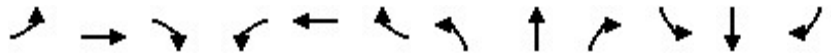
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	252	421	0	0	667	326	79	1	209	0	0	0
Future Volume (veh/h)	252	421	0	0	667	326	79	1	209	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	265	443	0	0	702	343	83	1	220			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	303	1136	0	0	1136	962	465	6	419			
Arrive On Green	0.61	0.61	0.00	0.00	0.61	0.61	0.26	0.26	0.26			
Sat Flow, veh/h	540	1870	0	0	1870	1585	1761	21	1585			
Grp Volume(v), veh/h	265	443	0	0	702	343	84	0	220			
Grp Sat Flow(s),veh/h/ln	540	1870	0	0	1870	1585	1782	0	1585			
Q Serve(g_s), s	26.0	8.5	0.0	0.0	16.5	7.6	2.5	0.0	8.3			
Cycle Q Clear(g_c), s	42.5	8.5	0.0	0.0	16.5	7.6	2.5	0.0	8.3			
Prop In Lane	1.00		0.00	0.00		1.00	0.99		1.00			
Lane Grp Cap(c), veh/h	303	1136	0	0	1136	962	471	0	419			
V/C Ratio(X)	0.87	0.39	0.00	0.00	0.62	0.36	0.18	0.00	0.53			
Avail Cap(c_a), veh/h	303	1136	0	0	1136	962	471	0	419			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.82	0.82	0.00	0.00	0.67	0.67	1.00	0.00	1.00			
Uniform Delay (d), s/veh	25.2	7.1	0.0	0.0	8.6	6.9	19.9	0.0	22.0			
Incr Delay (d2), s/veh	20.0	0.2	0.0	0.0	0.7	0.1	0.8	0.0	4.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.1	2.8	0.0	0.0	5.5	2.1	1.1	0.0	3.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.2	7.3	0.0	0.0	9.3	7.0	20.7	0.0	26.6			
LnGrp LOS	D	A	A	A	A	A	C	A	C			
Approach Vol, veh/h		708			1045			304				
Approach Delay, s/veh		21.5			8.6			25.0				
Approach LOS		C			A			C				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		23.0		47.0				47.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		18.5		42.5				42.5				
Max Q Clear Time (g_c+I1), s		10.3		44.5				18.5				
Green Ext Time (p_c), s		0.8		0.0				6.7				
Intersection Summary												
HCM 6th Ctrl Delay			15.4									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	488	160	392	326	0	0	0	0	226	0	242
Future Volume (veh/h)	0	488	160	392	326	0	0	0	0	226	0	242
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	514	168	413	343	0				238	0	255
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	937	306	464	1299	0				366	0	326
Arrive On Green	0.00	0.69	0.69	0.69	0.69	0.00				0.21	0.00	0.21
Sat Flow, veh/h	0	1350	441	759	1870	0				1781	0	1585
Grp Volume(v), veh/h	0	0	682	413	343	0				238	0	255
Grp Sat Flow(s),veh/h/ln	0	0	1791	759	1870	0				1781	0	1585
Q Serve(g_s), s	0.0	0.0	16.9	45.6	6.2	0.0				11.0	0.0	13.7
Cycle Q Clear(g_c), s	0.0	0.0	16.9	62.5	6.2	0.0				11.0	0.0	13.7
Prop In Lane	0.00		0.25	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	0	1244	464	1299	0				366	0	326
V/C Ratio(X)	0.00	0.00	0.55	0.89	0.26	0.00				0.65	0.00	0.78
Avail Cap(c_a), veh/h	0	0	1244	464	1299	0				366	0	326
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.68	0.68	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	6.8	23.8	5.1	0.0				32.8	0.0	33.8
Incr Delay (d2), s/veh	0.0	0.0	0.5	13.7	0.1	0.0				8.7	0.0	17.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	5.4	10.4	2.0	0.0				5.5	0.0	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	7.3	37.5	5.2	0.0				41.4	0.0	50.8
LnGrp LOS	A	A	A	D	A	A				D	A	D
Approach Vol, veh/h		682			756						493	
Approach Delay, s/veh		7.3			22.9						46.3	
Approach LOS		A			C						D	

Timer - Assigned Phs		4		6		8
Phs Duration (G+Y+Rc), s		67.0		23.0		67.0
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		62.5		18.5		62.5
Max Q Clear Time (g_c+I1), s		18.9		15.7		64.5
Green Ext Time (p_c), s		5.9		0.7		0.0

Intersection Summary		
HCM 6th Ctrl Delay		23.3
HCM 6th LOS		C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	450	12	1	598	77	15	0	9	67	6	343
Future Volume (veh/h)	188	450	12	1	598	77	15	0	9	67	6	343
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	198	474	13	1	629	81	16	0	9	71	6	361
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	306	981	27	465	879	113	120	0	489	115	5	489
Arrive On Green	0.54	0.54	0.54	0.54	0.54	0.54	0.31	0.00	0.31	0.31	0.31	0.31
Sat Flow, veh/h	739	1812	50	909	1624	209	0	0	1585	0	17	1585
Grp Volume(v), veh/h	198	0	487	1	0	710	16	0	9	77	0	361
Grp Sat Flow(s),veh/h/ln	739	0	1861	909	0	1833	0	0	1585	17	0	1585
Q Serve(g_s), s	15.1	0.0	9.7	0.0	0.0	17.4	0.0	0.0	0.2	0.0	0.0	12.2
Cycle Q Clear(g_c), s	32.5	0.0	9.7	9.8	0.0	17.4	18.5	0.0	0.2	18.5	0.0	12.2
Prop In Lane	1.00		0.03	1.00		0.11	1.00		1.00	0.92		1.00
Lane Grp Cap(c), veh/h	306	0	1008	465	0	993	120	0	489	121	0	489
V/C Ratio(X)	0.65	0.00	0.48	0.00	0.00	0.72	0.13	0.00	0.02	0.64	0.00	0.74
Avail Cap(c_a), veh/h	306	0	1008	465	0	993	120	0	489	121	0	489
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)	0.92	0.00	0.92	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.9	0.0	8.5	11.6	0.0	10.3	30.0	0.0	14.4	28.7	0.0	18.6
Incr Delay (d2), s/veh	4.3	0.0	0.3	0.0	0.0	2.5	2.3	0.0	0.1	23.1	0.0	9.6
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	3.0	0.0	3.2	0.0	0.0	6.2	0.3	0.0	0.1	1.8	0.0	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.2	0.0	8.9	11.6	0.0	12.8	32.3	0.0	14.5	51.8	0.0	28.2
LnGrp LOS	C	A	A	B	A	B	C	A	B	D	A	C
Approach Vol, veh/h		685			711			25			438	
Approach Delay, s/veh		14.2			12.8			25.9			32.4	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	23.0	37.0	23.0	37.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.5	32.5	18.5	32.5
Max Q Clear Time (g_c+I1), s	20.5	34.5	20.5	19.4
Green Ext Time (p_c), s	0.0	0.0	0.0	4.2

Intersection Summary	
HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B