DRAFT
Environmental Impact Report
APPENDICES

Winton Community Plan

SCH #2018091047

Merced County
Community and Economic Development Department

November 2020

Draft
Environmental Impact Report

Winton Community Plan

SCH #2018091047

Appendices

Prepared for:

Merced County

Prepared by:

Adrienne Graham
and Associates

November 2020

APPENDICES (On Disk Only)

A. Notice of Preparation (NOP)

B. Responses to the NOP

C. Air Quality Calculations and Operational Mitigation

D. Special-Status Species Table

E. Greenhouse Gas Calculations

F. Noise Report and Appendix

G. Traffic Report and Appendix

H. Water Supply Assessment

I. Energy Calculations

APPENDIX A: NOTICE OF PREPARATION

MERCED COUNTY

COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT

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Director

Steven Maxey
Deputy Director

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Equal Opportunity Employer

NOTICE OF PREPARATION

TO: Interested Persons

FROM: Merced County
Community and Economic Development Department
2222 M Street
Merced, CA 95340

CONTACT: Diana Lowrance, Planner III, Community and Economic Development Department

SUBJECT: Notice of Preparation: Draft Environmental Impact Report for the Winton Community Plan Update (Community Plan No. CP16-003/General Plan Text Amendment No. GPTA16-004/Zone Change No. ZC16-003)

PUBLIC REVIEW PERIOD: September 27 through October 29, 2018

Merced County will prepare an environmental impact report (EIR) for the proposed Winton Community Plan Update. We need to know the views of your agency as to the scope and content of the environmental information, which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

A public scoping meeting will be held on October 23, 2018, from 10:00 a.m. to Noon, at the Winton Community Hall located at 7091 West Walnut Avenue in Winton.

The project description, location, and the potential environmental effects are contained in the attachment (Attachment 1).

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

To ensure that the full range of issues related to this proposed action are addressed and all significant issues are identified, written comments and suggestions are invited from all interested parties. Comments or questions concerning the proposed EIR should be directed to Merced County by 5:00 p.m. on Monday, October 29, 2018. Please send your comments to the attention of Diana Lowrance, at the address shown above. Additionally, please provide the name of a contact person in your agency.

Project Title: Winton Community Plan Update

Project Location: Merced County Nearest City: Atwater

Lead Agency and Project Applicant:
Merced County, Community and Economic Development Department

Date: 9/24/18

Signature: Diana
Diana Lowrance, Planner III

Notice of Preparation
Winton Community Plan EIR
(Community Plan No. CP16-003/General Plan Text Amendment No. GPTA16-004/Zone Change No. ZC16-003)

Attachment 1

Background

Merced County will be preparing an Environmental Impact Report (EIR) to address the environmental effects of the Winton Community Plan (Proposed Project).

The proposed Winton Community Plan will serve as the long-range vision and land use strategy plan for guiding development within the unincorporated community of Winton in Merced County. The County and its consultants have been working with community residents, businesses, property owners, and public agencies and organizations to identify and establish the direction and character of growth in Winton through the year 2035. This is the first comprehensive update to the original Winton Community Specific Plan adopted in 1981.

The Winton Community Plan EIR will be a program EIR as defined in CEQA Guidelines Section 15168, which is one type of EIR that can be prepared for planning projects. A program EIR evaluates the impacts of a series of actions that can be characterized as one large project and are related either:

1) geographically;
2) as logical parts in a chain of contemplated actions;
3) are connected with issuances of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or
4) as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

The Winton Community Plan is a plan that will govern future development within the community Plan Area. This EIR analyzes the Community Plan at a programmatic level. Specific development projects are not proposed at this time, but will be subject to the policies, standards and guidelines set forth in the Community Plan, as well as mitigation measures identified in this Draft EIR.

The 2030 Merced County General Plan adopted in 2013 identifies Winton as an Urban Community. The General Plan defines Urban Communities as areas within unincorporated Merced County that have a range of housing densities, commercial uses, public sewer and/or water infrastructure, public services and employment-generating land uses. Approval of the proposed Community Plan would require an amendment of the County General Plan to reflect the proposed land uses. Development within the Plan Area would be governed by both General Plan policies and Community Plan policies, standards and guidelines.

Project Location

Winton is an unincorporated community located in Merced County, immediately north of the City of Atwater (see Figure 1) and approximately 8 miles northwest of the City of Merced. The closest highway is Highway 99, approximately 2 miles to the west of Winton. The Burlington Northern-Santa Fe Railroad bisects the Plan Area in a northwest to southeast direction, parallel to Santa Fe Avenue.

Existing Environment

Winton is a small, agriculturally-oriented community encompassing approximately 1,412 acres or 2.2 square miles. The community is bounded to the north, west and east by nut and fruit orchards and other agricultural operations. Residential development and undeveloped land bounds the Plan Area to the south. A portion of the southern border abuts the City of Atwater, which extends to the south and east of the Plan Area. Castle Airport is located approximately 2 miles to the south east.

At the time of the 2010 census, there were approximately 10,613 people living in Winton in 2,718 households. The average number of persons per household was 3.9.[1]

Land use designations within the Winton Plan Area include Agricultural, Agricultural-Residential, Low and Medium Density Residential, Residential Reserve, Commercial-Transition, Neighborhood Commercial, General Commercial, Industrial, Institutional/Public Facility, Recreation, and Residential Reserve. Low and Medium Density Residential provide the bulk of the land use designations.

Commercial development is primarily concentrated along Winton Way, generally north of Almond Avenue and south of Walnut Avenue. Supermarkets, restaurants, a post office, and additional retail stores can be found in these areas.

The community Plan Area is relatively flat. Almost the entire area has been disturbed by urban development or agricultural activities. A majority of the land within the Plan Area has been developed with residential or commercial uses, but there remain large undeveloped parcels that are vacant or used for agricultural operations. Consequently, there are only a few areas that provide biological habitat, such as open fields and drainages. Approximately 139.3 acres of the Plan Area are vacant, including land designated for agricultural, industrial, commercial and residential uses.[2]

Of the undeveloped acreage within the Plan Area, 283 acres, or approximately 20 percent, are identified as Prime Farmland. There are no agricultural easements or Williamson Act properties within the Winton community, although there are numerous Williamson Act properties in the surrounding area. There are no dairies or other animal confinement operations within the Plan Area.

There are five schools within Winton. Four of those are within the Winton School District---Winfield, Frank Sparkes and Sybil N. Crookham elementary schools and Winton Middle School. Total enrollment in these schools was 1,942 in 2017. A fifth school, Washington Elementary School, is in the Merced River School District, which serves rural populations in Atwater, Merced, Snelling and Winton. Washington had 95 students in 2015. Generally, students from Winton attend Atwater High School, located immediately south of the Plan Area. The high school had an enrollment of 1,885 students in 2015.

There is one community park within Winton—the Winton Community Park. The Community Park is 22.5 acres, and includes passive recreational facilities, such as picnic tables, restrooms, play structures, mature trees and lawn. The park also two baseball diamonds,

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1 United States Census Bureau, 2010 Census: Apportionment Data Map (Text Version), accessed at https://www.census.gov/2010census/popmap/ipmtext.php?fl=06:0686076, August 10, 2018.

2 Merced County, *Merced County General Plan Background Report, Table 3-11,* December 2013, page 3-53.

one of which has lights. Two other parks are located in Winton. A half-acre park in the central part of the Plan Area contains a play structure, basketball court and picnic tables. A small, one-fifth acre, park contains a basketball court and lawn in a subdivision in the western portion of the Plan Area. The elementary and middle schools in the Plan Area also provide recreational facilities.

The Merced County Fire Department provides fire, rescue and emergency medical services to all unincorporated parts of the County, including Winton. The Plan Area is served by Station #88 in Winton. The Merced County Sheriff's Department provides law enforcement services.

Winton Water and Sewer District (WWSD) provides water and sewer services to the Winton community. The WWSD has approximately 3,000 water and sewer connections. Domestic water is provided entirely from three groundwater wells, with a combined peak capacity of approximately 6.05 million gallons per day (mgd) and an average usage of 1.56 mgd.[3]

Wastewater is collected by the WWSD and conveyed to the City of Atwater Wastewater Treatment Plant for treatment. The treatment plant is contractually obligated to accept up to 2.0 mgd of wastewater from the WWSD. In 2010, Winton generated approximately 0.6 to 0.7 mgd.[4]

Winton is in an area of minimal flood hazard (Zone X on the Flood Insurance Rate Map). Storm drainage facilities include existing roadside ditches, curb and gutter and drainage ponds on private property. The County maintains stormwater basins in the area.[5]

The Plan Area is located in proximity to the Castle Airport. The portion of the Plan Area east of Santa Fe Avenue is within the Airport Influence Area. However, this area is in Compatibility Zone D, which has very limited restrictions on the types or intensity of development (for example, oil refineries, chemical plants and solid waste disposal facilities are the only land uses that are considered incompatible with this zone).[6] The entire community of Winton falls outside of the 60 dB CNEL zone for the airport.[7]

Proposed Project Description

As stated above, the proposed Community Plan is intended to guide development in Winton through the year 2035. The proposed Community Plan would amend the County General Plan and provide policies to ensure that the Community Plan is implemented as envisioned by Winton residents and the County. The County zoning map would also be amended to reflect the zones associated with the proposed land use designations.

The Proposed Project would alter the boundaries of the community Plan Area. As shown in Figure 2, the proposed boundary would be coterminous with the current boundary, except that the triangular area north of Gertrude Avenue, east of Winton Way and west of Santa Fe Drive would be added. The WWSD Sphere of Influence would also need to be adjusted to

3 Merced County, *SB 244 Analysis: Disadvantaged Unincorporated Communities*, May 9, 2016, page 7.
4 Economic and Planning Systems, Inc., *City of Atwater Municipal Service Review Update,* approved December 13, 2017, page 13.
5 Merced County, *SB 244 Analysis: Disadvantaged Unincorporated Communities*, May 9, 2016, page 5.
6 Merced County, *Merced County Airport Land Use Compatibility Plan,* June 21, 2012, Table 2A.
7 Merced County, *Merced County Airport Land Use Compatibility Plan,* June 21, 2012, Exhibit CAS 4, Compatibility Factors Map.

incorporate the additional area.

The Winton Community Plan provides for increases in residential and commercial development, accompanied by services needed to serve this growth. The proposed land uses are shown in Figure 3 and Table 1. The predominant land use would continue to be single-family homes in areas designated Very Low and Low Density. Medium Density Residential designations would provide for non-traditional housing types, such as small-lot single family, autocourt homes, rowhomes and townhomes. Residential development would also be allowed in the Commercial Transition and Mixed Use zones, along with commercial uses.

The proposed Community Plan is projected to increase the community population to a total of approximately 14,064 residents, an increase of approximately 72 percent by 2040, and up to approximately 15,152 if the plan were to fully buildout. Commercial, mixed-use and business park development would increase to approximately 2.27 million square feet, an increase of approximately 450 percent. Industrial uses would increase from very little (approximately 110 square feet) to approximately 51,000 square feet. No new schools are proposed, although additional schools would be allowed in areas designated for residential development.

The proposed Community Plan provides for 52 acres of new neighborhood parks to be located in existing and new residential areas throughout the Plan Area. No new community parks are proposed. Neighborhood parks would range from one to seven acres in size, and could include such features as playgrounds, picnic areas and passive spaces. Other possible amenities include community gardens, tot lots, dog parks, walking paths and multiuse lawn areas. Pocket parks of less than one acre could also be located in and around residential neighborhoods. A community-wide multiuse trail on the west side of Santa Fe Avenue is also proposed, along with several other trails within the Plan Area. New parks would be funded through a combination of parkland dedications within new developments, park fees paid by new development and/or developer funding.

The proposed Community Plan does not include any specific development projects. In order to determine the potential impacts of the proposed Community Plan, the EIR will assume, at buildout, the land uses and levels of development shown in Table 1. If the proposed Community Plan is adopted, proposals for new development would need to demonstrate that they are consistent with the land use designations and policies of the adopted Community Plan.

Project Schedule

The proposed Community Plan, if adopted, is expected to take approximately 20 years to build out. The actual duration would depend on market and other factors.

CEQA Actions and Project Approvals

Prior to approving the Proposed Project, or any alternative project, the County is required to undertake CEQA review including:

- **Certification of the EIR -** Certification that the EIR adequately identifies any significant environmental effects of the Proposed Project, pursuant to CEQA and the CEQA Guidelines; and

- **Mitigation Monitoring** – Adoption of a Mitigation Monitoring and Reporting Plan to reflect the measures required to mitigate significant impacts, if any, of the project.

The EIR is intended to provide the CEQA documentation for approval of the Community Plan and related General Plan amendments and rezoning, as needed to conform to the new community plan.

Because no individual projects or entitlements are included in the Proposed Project, no action by other agencies is necessary. However, subsequent projects implemented under the Community Plan may require additional County action, including tentative subdivision maps, administrative and conditional use permits, improvement plans and building permits. In addition, the following actions of regulatory agencies may be necessary for subsequent projects.

- **Local Area Formation Commission** revision to the Winton Community and WWSD boundaries.
- **Section 7 or Section 10 Consultation** with the U.S. Fish and Wildlife Service if any federally-listed plant or wildlife species could be adversely affected by the proposed development.
- **404 permit** from the US Army Corps of Engineers if any waters of the US would be filled.
- **Section 1602 Streambed Alteration Agreement** from the California Department of Fish and Wildlife for potential disturbance to the bed or bank of jurisdictional waters.
- **Section 401** certification if a federal 404 permit is issued, and/or **National Pollutant Discharge Elimination Permit (NPDES)** from the Regional Water Quality Control Board if discharge to surface waters would be necessary or if discharges would increase over currently permitted levels.
- **State General Construction Activity Storm Water Permit**, issued by the State Water Quality Control Board.
- **Permit to Operate from the San Joaquin Air Quality Management District** for any industrial or commercial facility that would include stationary equipment that discharges certain pollutants to the air.
- **Can and Will Serve Letter for water and wastewater service** from the Winton Water and Sanitary District would be required as a condition of new development.

Scope of the EIR

As provided in the CEQA Guidelines (Section 15021), public agencies are charged with the duty to avoid or minimize environmental damage where feasible. In discharging this duty, the public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social. The Winton Community Plan EIR will address the environmental impacts of developing the land uses allowed under the proposed Community Plan. The public agency is required to consider the information in the EIR, along with any other relevant information included in the public record, in making its decision on the project (Section 15121 of the CEQA Guidelines).

An Initial Study will be prepared in order to focus the EIR analysis on those issue areas where significant impacts could occur, or where there is particular public concern. At this time, based on a preliminary review, the Draft EIR is expected to focus on the following topics:

  - **Land Use,** including compatibility with existing uses and consistency with

adopted plans;
  - **Agriculture**, including the conversion of farmland to other uses;
  - **Biological Resources,** including adverse effects on special status species, riparian habitat, other sensitive habitats, and/or federally-protected wetlands, interference with the movement of any native resident or migratory fish or wildlife, and/or conflicts with local policies and/or conservation plans;
  - **Cultural resources**, including adverse changes in the significance of historical or archaeological resources, destruction of paleontological resources, and/or disturbance of human remains;
  - **Transportation and Circulation**, including increased traffic congestion, consistency with congestion management and other transportation plans, and effects on transit, bicycle and pedestrian facilities;
  - **Air Quality**, including emissions of air pollutants during construction and operation and odors;
  - **Climate Change**, including increased emissions of greenhouse gases;
  - **Noise**, including construction, traffic, and other operational noise; and
  - **Utilities**, including water supply (including effects on groundwater supplies), wastewater treatment, and solid waste.

Based on the preliminary evaluation, the following possible environmental effects of the Proposed Project are expected to be less than significant, or reduced to less-than-significant levels with application of proposed Community Plan policies and standards, adopted General Plan policies, federal, state and local regulations and standard conditions and measures:

- **Aesthetics**, including adverse effect on a scenic vista, degradation of scenic resources, degradation of the existing visual quality of the area, and/or light or glare that could affect day and nighttime views;
- **Forestry resources**, including conflicts with forestland or timberland production zones, and/or loss or conversion of forest land to non-forest uses;
- **Geology and soils,** including exposure of people or structures to the risk of loss, injury or death from seismic-related effects, soils constraints and/or landslides, soil erosion or the loss of topsoil, and/or issues related to septic tanks;
- **Hazards and Hazardous Materials**, including hazards to the public or environment due to the routine transport, use or disposal of hazardous materials, or release of hazardous materials, emission or handling of hazardous materials within one-quarter mile of a school, development on a site included on a list of hazardous materials sites (e.g., Cortese List), hazards from public airports or private airstrips, interference with an adopted emergency response or evacuation plan, and/or exposure to risk of injury or loss from wildfire.
- **Hydrology and Water Quality,** including violation of water quality standards or waste discharge requirements, interference with groundwater recharge, alteration of existing drainage patterns, generation of runoff that exceeds the capacity of existing or planned drainage facilities, placement of housing in the 100-year floodplain, impediments to flood flows, loss, injury or death due to flooding and/or inundation by seiche, tsunami or mudflow (note that impacts on groundwater supplies will be addressed in the Utilities chapter of the Draft EIR under water supply);
- **Land Use,** including physical division of a community or conflict with applicable habitat or natural community conservation plans (conflicts with applicable land use policies or regulations will be addressed in the Land Use chapter of the Draft EIR);
- **Mineral Resources**, including the loss of availability of known mineral resources and/or locally-important mineral resources;
- **Noise**, including exposure to excessive noise levels from a public airport or private

airstrip (other noise issues will be fully addressed in the Noise chapter of the Draft EIR);

- **Population and Housing**, including displacement of people and/or the need to construct replacement housing (growth inducement will be addressed in the CEQA Considerations chapter of the Draft EIR);
- **Public Services**, including fire protection, police protection, schools, parks and other public facilities;
- **Recreation**, including increased use of existing parks construction or expansion of recreational facilities; and
- **Transportation**, including changes in air traffic patterns, increased hazards due to design features or incompatible uses, and/or inadequate emergency access (traffic congestion, conflicts with applicable transportation policies, congestion management and transit, bike or pedestrian plans will be addressed in the Transportation and Circulation chapter of the Draft EIR).

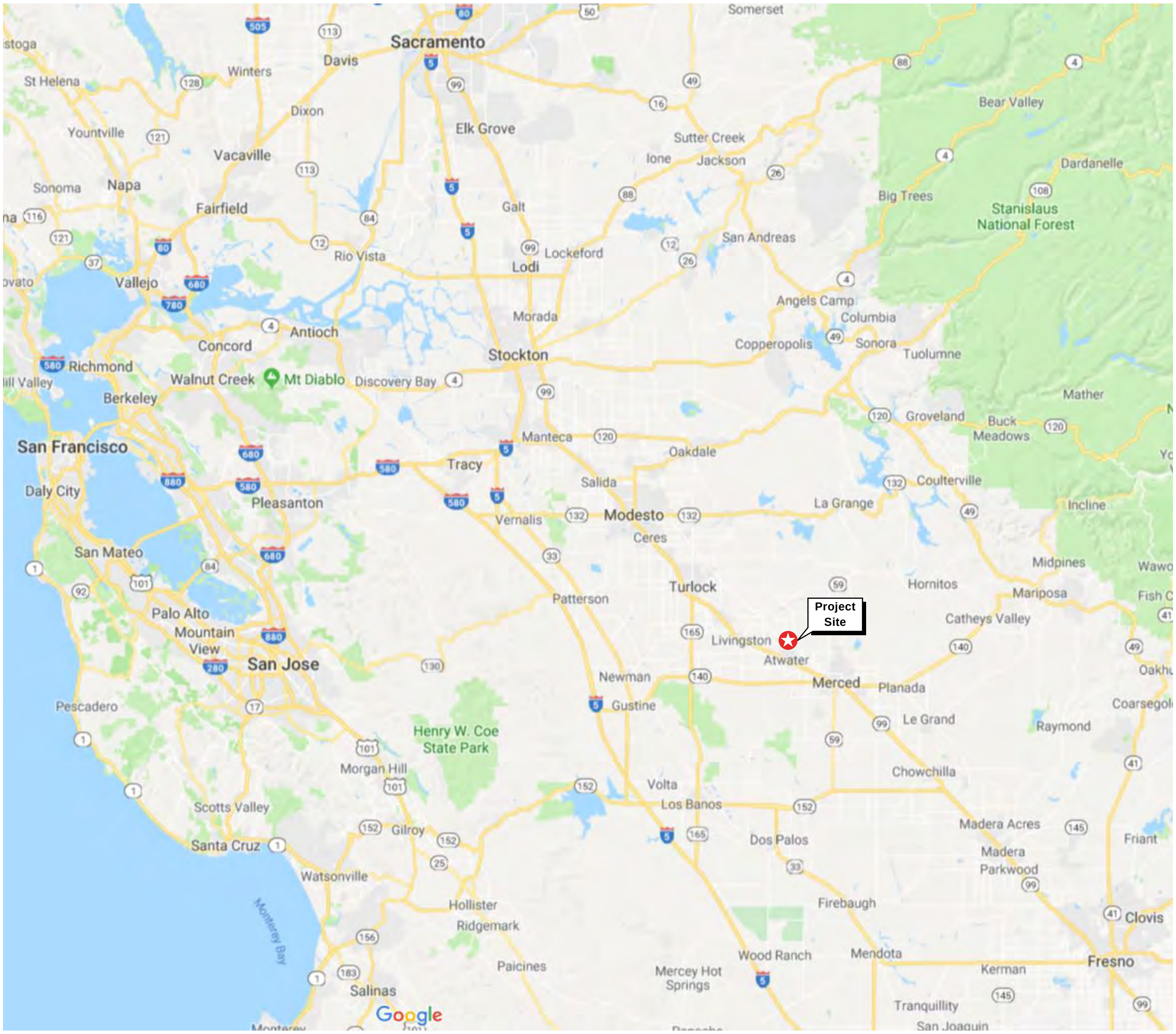
Comments Requested

To ensure that the full range of issues related to this proposed action are addressed and all significant issues are identified, written comments and suggestions are invited from all interested parties. Comments or questions concerning the proposed EIR should be directed to the name and address below by 5:00 p.m. on Monday, October 29.

Diana Lowrance, Planner III
Merced County
Community and Economic Development Department
2222 M Street
Merced, CA 95340
(209) 385-7654

Table 1 Winton Community Plan Land Use Summary				
Land Use	Acreage Total	Dwelling Units/Square Feet[1]/Number Existing	Future	Total
Residential				
Very Low Density (VLD)	233	110 du	137 du	247 du
Low Density (LD)	487	2,124 du	635 du	2,612 du
Medium Density (MD)	133	670 du	571 du	1,241 du
Mixed Use (MU)[2]	11	33 du	29 du	62[6] du
Non-Residential Designations[3]		58 du	(33) du	25 du
Total Residential	***865***	***2,995 du***	***1,339 du***	***4,187 du***
Non-Residential				
Commercial				
General Commercial (GC)	43	123,367 sf	621,158 sf	744,525 sf
Neighborhood Commercial (NC)	4	12,389 sf	74,731 sf	87,120 sf
Commercial Transition	4	0 sf	28,500 sf	28,500 sf
Mixed Use (MU)	See above	117,163 sf	95,516 sf	212,678 sf
Total Commercial	*51*	*252,919 sf*	*819,904, sf*	*1,072,824 sf*
Business Park				
Business Park	93	286,746 sf	911,659	1,198,405 sf
Industrial				
Industrial (IND)	9	110 sf	50,902 sf	51,012 sf
Non-residential uses within residential designations[3]	n/a	97,345 sf	(34,176) sf	63,169 sf
Total Non-Residential	***153***	***637,352***	***1,748,289 sf***	***2,322,241 sf***
Schools				
Elementary School (INST)	45	1 du 4 schools	0	1 du 4 schools
Middle School (INST)	22	1 school	0	1 school
Other (INST)	1	18,843	0	18,843
Total Schools	***68***	***1 du 5 schools***	***0***	***1 du 5 schools***
Parks				
Community Park (REC)	22			
Neighborhood Park	52			
Total Parks	***74***	***n/a***	***n/a***	***n/a***
Other				
Other (e.g. roads, canals)	250	n/a	n/a	250 acres
	Total 1,412 acres	*4,187 dwelling units 2,341,084 sf non-residential*		

Table 1 Winton Community Plan Land Use Summary
Table 1 Notes: Some columns may not add up due to rounding. 1. Potential building square footage is derived by multiplying the typical floor area ratio by proposed acreage. Existing building square footage has been subtracted from the total shown. 2. Assumes typical development rate rather than maximum development potential. 3. Some residential units are located within areas that are not zoned for residential development; it is assumed that these non-conforming units will be removed as development occurs. Similarly, some non-residential uses occur within residential areas. The dwelling units and square footage that are anticipated to be removed as nonconforming uses are included in the "Future" column (i.e., Future is the net of new minus existing-to-be-removed uses). du=dwelling units sf=square feet



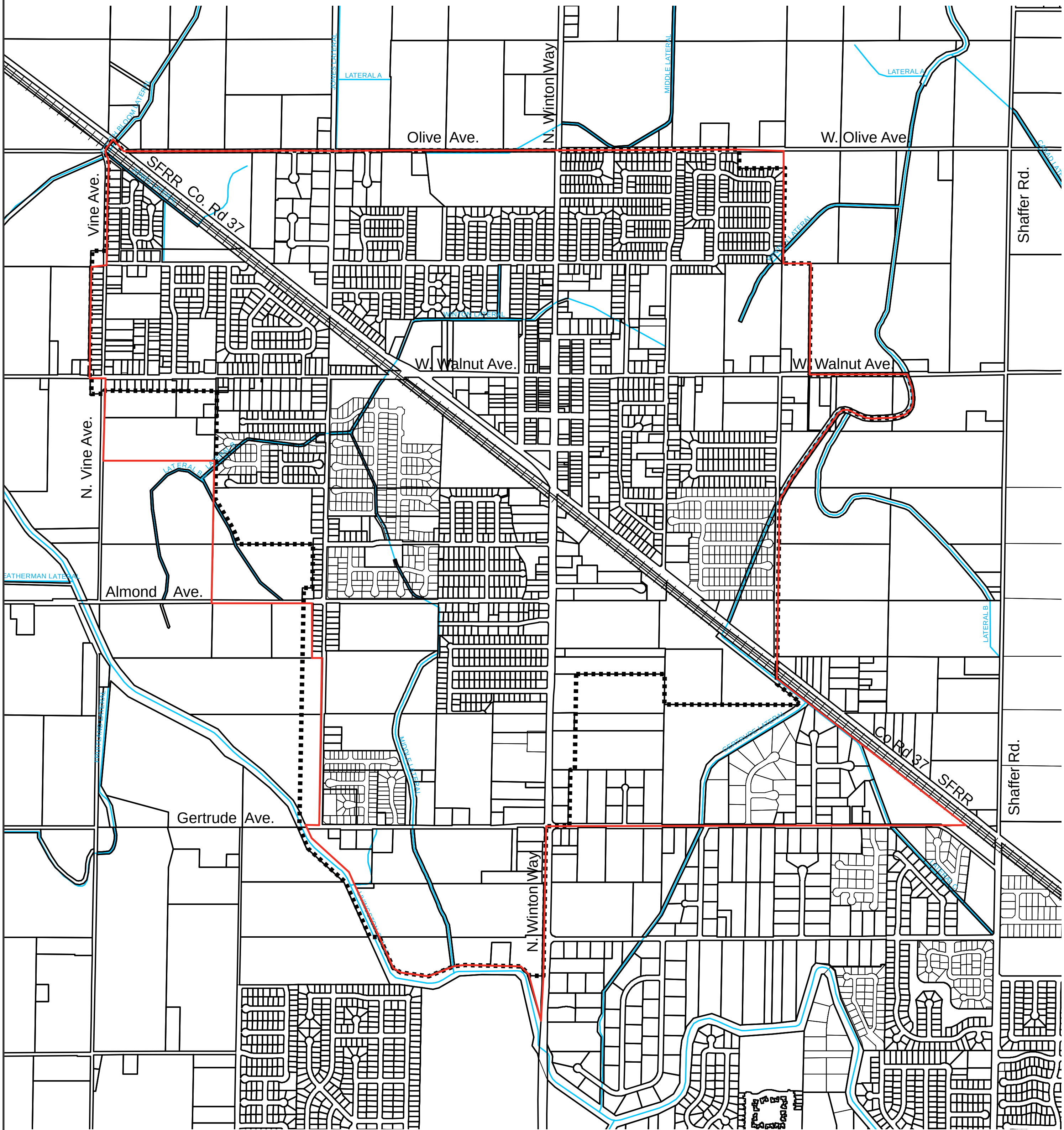
Project Location

N
No Scale

SOURCE: Merced County Community And Economic Development Department, 2018; Google Maps, 2018.

Figure 1

Regional Location



Existing Community Plan Boundary

Proposed Community Plan Boundary

Natural Waterways and Canals

0 800 1,600 2,400 3,2000

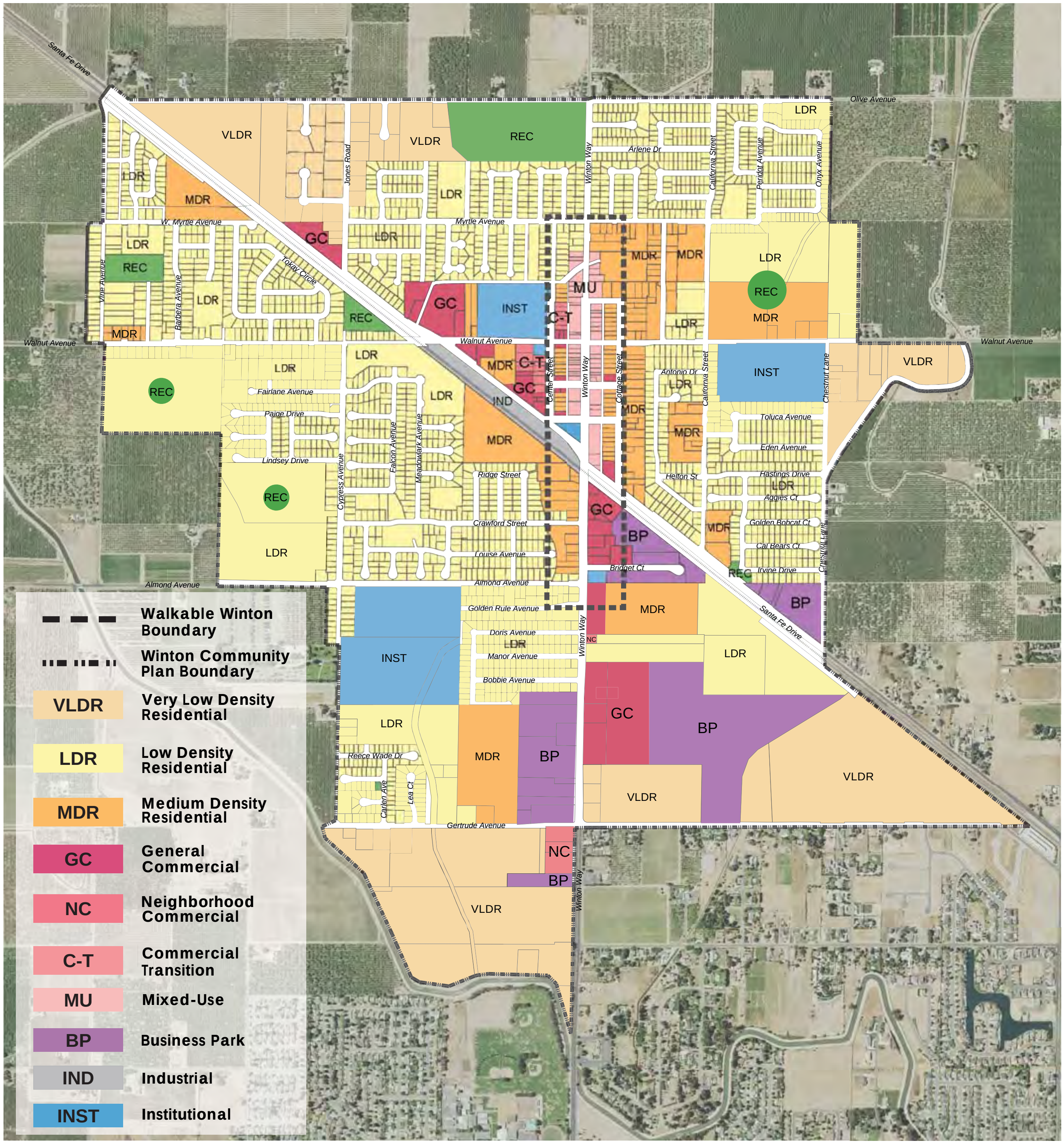
Scale In Feet

N

SOURCE: Merced County Community And Economic Development Department, 2018.

Figure 2

Community Plan Area



N
No Scale

SOURCE: Merced County Community And Economic Development Department, 2018.

Figure 3
Proposed Community Plan Land Use Designations

Appendix B: Responses to the NOP

STATE OF CALIFORNIA Edmund G. Brown Jr., 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 4, 2018

Diana Lowrance
Merced County
2222 M St.
Merced, CA 95340

RE: SCH#2018091047 Winton Community Plan Update, Merced County

Dear Ms. Lowrance:

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

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

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

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

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
   a. A brief description of the project.
   b. The lead agency contact information.
   c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
   d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).
   a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
   a. Alternatives to the project.
   b. Recommended mitigation measures.
   c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
   a. Type of environmental review necessary.
   b. Significance of the tribal cultural resources.
   c. Significance of the project's impacts on tribal cultural resources.
   d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
   a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
   b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
   a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
   b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

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

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

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
   a. Avoidance and preservation of the resources in place, including, but not limited to:
      i. Planning and construction to avoid the resources and protect the cultural and natural context.
      ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
   b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
      i. Protecting the cultural character and integrity of the resource.
      ii. Protecting the traditional use of the resource.
      iii. Protecting the confidentiality of the resource.
   c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
   d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).
   e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
   f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
   a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
   b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
   c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

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

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

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

Sincerely,

for Nancy Gonzalez

Sharaya Souza
Staff Services Analyst

cc: State Clearinghouse

State of California • Natural Resources Agency
Department of Conservation
Division of Land Resource Protection
801 K Street • MS 14-15
Sacramento, CA 95814
(916) 324-0850 • FAX (916) 327-3430

Edmund G. Brown Jr., *Governor*
Clayton Haas, *Acting Director*

October 8, 2018

VIA EMAIL: DLOWRANCE@CO.MERCED.CA.US
Ms. Diana Lowrance, Planner III
Merced County
Community and Economic Development Department
2222 M Street
Merced, CA 95340

Dear Ms. Lowrance:

NOTICE OF PREPARATION: DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE WINTON COMMUNITY PLAN UPDATE, SCH# 2018091047

The Department of Conservation's (Department) Division of Land Resource Protection (Division) has received the Notice of Preparation of a Draft Environmental Impact Report for the Winton Community Plan Update sent by Merced County (County). The Division monitors farmland conversion on a statewide basis and administers the California Land Conservation (Williamson) Act and other agricultural land conservation programs. We offer the following comments and recommendations with respect to the proposed project's potential impacts on agricultural land and resources.

Project Description

The proposed Community Plan is intended to guide development in Winton through the year 2035 and would provide policies to ensure that the Community Plan is implemented as envisioned by Winton residents and the County. The County General Plan and zoning map would also be amended to reflect the zones associated with the proposed land use designations. The proposed project would alter the boundaries of the Community Plan Area and would be coterminous with the current boundary, except that the triangular area north of Gertrude Avenue, east of Winton Way and west of Santa Fe Drive would be added.

Department Comments

The conversion of agricultural land represents a permanent reduction and significant impact to California's agricultural land resources. Under CEQA, a lead agency should not approve a project if there are feasible alternatives or feasible mitigation measures available that would lessen the significant effects of the project.[1] A measure brought to the attention of the lead agency should not be left out unless it is infeasible based on its elements.

Agricultural conservation easements on land of at least equal quality and size can mitigate the project impacts in accordance with CEQA Guideline § 15370. The Department highlights

[1] California Environmental Quality Act Statute and Guidelines, Association of Environmental Professionals, 2017, Section 21002, page 2.

agricultural conservation easements because of their acceptance and use by lead agencies as an appropriate mitigation measure under CEQA. Agricultural conservation easements are an available mitigation tool and should always be considered.

Conclusion

The Department recommends the following discussion under the Agricultural Resources section of the DEIR:

- Type, amount, and location of farmland conversion resulting directly and indirectly from implementation of the proposed project.
- Impacts on any current and future agricultural operations in the vicinity; e.g., land-use conflicts, increases in land values and taxes, loss of agricultural support infrastructure such as processing facilities, etc.
- Incremental impacts leading to cumulative impacts on agricultural land. This would include impacts from the proposed project, as well as impacts from past, current, and likely future projects.
- Proposed mitigation measure for all impacted agricultural lands within the proposed project area.

Thank you for giving us the opportunity to comment on the Notice of Preparation of a Draft Environmental Impact Report for the Winton Community Plan Update. Please provide this Department with notices of any future hearing dates as well as any staff reports pertaining to this project. If you have any questions regarding our comments, please contact Farl Grundy, Environmental Planner at (916) 324-7347 or via email at Farl.Grundy@conservation.ca.gov.

Sincerely,

Monique Wilber
Conservation Program Support Supervisor

PUBLIC UTILITIES COMMISSION
320 WEST 4TH STREET, SUITE 500
LOS ANGELES, CA 90013

October 5, 2018

Diana Lowrance
Merced County
2222 M Street
Merced, CA 95340

Re: SCH 2018091047 – Winton Community Center Plan Update – *Notice of Preparation*

Dear Ms. Lowrance:

The California Public Utilities Commission (Commission/CPUC) has jurisdiction over rail crossings (crossings) in California. CPUC ensures that crossings are safely designed, constructed, and maintained. The Commission's Rail Crossings Engineering Branch (RCEB) is in receipt of the *Notice of Preparation (NOP)* for the proposed Winton Community Center Plan Update. Merced County (County) is the lead agency.

The city's proposed project will serve as the long-range vision and land use strategy plan for guiding development within the unincorporated Community of Winton in Merced County. In addition to land use, the Community Plan Update addresses circulation, noise, and public services. As part of the circulation plan, improvements are proposed for Santa Fe Drive, the principal arterial roadway that runs northwest-southeast through the Community Plan boundary and alongside the BNSF railroad right-of-way. In addition, improvements are proposed to Winton Way, a north-south running minor arterial roadway, and to Walnut Avenue, an east-west running urban major collector roadway. There are two at-grade railroad crossings within the Community Plan boundaries: at the intersection of Santa Fe Drive and Walnut Avenue, and at the intersection of Santa Fe Drive and Winton Way.

Improvements are proposed for both at-grade railroad crossings within the Community Plan boundary to create enhanced pedestrian and bicycle access across railroad tracks. The Walnut Avenue crossing (CPUC No. 002-1065.70, DOT No. 028707L) is currently equipped with two Commission Standard 9-A (flashing light assembly with automatic gate arm with additional flashing light signals over the roadway on a cantilevered arm) warning devices. The intersection of Walnut Ave and Santa Fe Drive is located approximately 240 feet from the crossing, and is passively controlled by Stop sign at all four quadrants. The Winton Way crossing (CPUC No. 002-1065.30, DOT No. 028706E) is currently equipped with two Commission Standard 9-A warning devices and two Commission Standard 8 (flashing light assembly) warning devices. The intersection of Winton Way with Santa Fe Drive is located approximately 65 feet from the crossing, and is actively controlled by stop lights.

Any development adjacent to or near the railroad or light rail transit right-of-way (ROW) should be planned with the safety of the rail corridor in mind. New developments may increase pedestrian or vehicular traffic volumes not only on streets and at intersections, but also at nearby rail crossings. Traffic impact studies should analyze rail crossing safety and potential mitigation measures. Safety improvement measures may include the planning for grade separations or improvements to existing at-grade crossings. Examples of improvements may include, but are not limited to: addition or upgrade of crossing warning devices, detectable warning surfaces and edge lines on sidewalks, and pedestrian channelization. Pedestrian and bicycle routes should be designed to clearly prohibit and discourage unauthorized access (trespassing) onto the tracks, except at authorized crossings.

In addition, construction or modification of public crossings requires authorization from the Commission. RCEB representatives are available to discuss any potential safety impacts or concerns at crossings. Please continue to keep RCEB informed of the project's development. More information can be found at: http://www.cpuc.ca.gov/crossings.

If you have any questions, please contact Matt Cervantes at (213) 266-4716, or mci@cpuc.ca.gov.

Sincerely,

Matt Cervantes
Utilities Engineer
Rail Crossings Engineering Branch
Safety and Enforcement Division

CC: State Clearinghouse, state.clearinghouse@opr.ca.gov

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DISTRICT 10 DIRECTOR
P.O. BOX 2048, STOCKTON, CA 95201
(1976 E. DR. MARTIN LUTHER KING JR. BOULEVARD 95205)
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www.dot.ca.gov

Making Conservation
a California Way of Life.

October 11, 2018

10-MER-99 PM 23.8
State Clearinghouse # 2018091047
Winton Community Plan Update
Merced County

Ms. Diana Lowrance
Planner III
Merced County
2222 M. Street
Merced, CA 95340

Dear Ms. Lowrance:

Thank you for the opportunity to review the above-referenced document, the Winton Community Plan Update (SCH# 2018091047). The Department has the following comments:

The Department recognizes there is a strong link between transportation and land use. Growth and development can have a significant impact on traffic and congestion on State transportation facilities. In particular, the pattern of land use can affect both total vehicle miles traveled and the number of trips per household. In order to create more efficient and livable communities, the Department encourages the applicant to work towards a safe, functional, interconnected, multi-modal system integrated with "smart growth" type land use planning. While recognizing that topographic and environmental constraints may preclude a strict interconnected grid street network, roads which are routed in parallel can provide an alternative to using the interregional roads or highway, thereby helping to alleviate congestion on State facilities.

Given the importance of mobility options, the plan should provide an assessment of how various transportation options will be incorporated. Specifically, pedestrian and bicycle access to and throughout the urban boundaries should be provided. The Department encourages the applicant to incorporate design features and site proximities that encourage walking and bicycling, public transit options, accessibility for children, the elderly, and persons with disabilities, and transit priority measures.

We suggest that the County continue to coordinate and consult with the Department to identify and address potential cumulative transportation impacts that may occur from developments near this geographical location.

If you have any questions, please contact Steven Martinez at (209) 942-6092 (email: steven.r.martinez@dot.ca.gov) or me at (209) 941-1921. We look forward to continuing to work with you in a cooperative manner.

Sincerely,

TOM DUMAS, Chief
Office of Metropolitan Planning

c: State Clearinghouse

APPENDIX C: AIR QUALITY CALCULATIONS AND OPERATIONAL MITIGATION

Air Quality Appendix

A. Assumptions

B. Emissions Summary
  1. Unmitigated Construction
  2. Mitigated Construction
  3. Unmitigated Operational
  4. Mitigated Operational

C. Modeling Output
  1. CO Hotspot
  2. EMFAC2017
  3. CalEEMod
     a. Unmitigated Construction
     b. Mitigated Construction
     c. Unmitigated Operational
     d. Mitigated Operational

Air Quality Appendix

A. Assumptions

Winton
Project Construction Assumptions

CalEEMod Inputs (Non-Default information only)

Project Location	
County	Merced
Air District	SJVAPCD
Climate Zone	3
First Construction Year	2020
First Operational Year	2021
Buildout Year	2035
Utility Provider	PG&E

Land Use	Sq Ft	KSF	(Units/Students)	Acers	CalEEMod Land Use Type	
	10% total Buildout (one year construction activities)					
Residential						
Single Family Residential			165.00	49.00	Single Family Residential	
Apartment Mid-Rise			3.00	1.00	Apartment Mid Rise	
Non-Residential						
Shopping Center	36,947	36.95		3.47	Strip Mall	
General Office	25,520	25.52		1.60	General Office	
Industrial Park	61,865	61.87		5.10	Industrial Park	
Demolition						
Residential	3,600	3.60	2	0.16		1179.35
Non-Residential	1,117	1.12		0.11		372.4667

Note: As a conservative estimate of emissions, 10% of total square footage and dwelling units is assumed to be built in one year beginning in 2020. Construction is based on square footage or number of dwelling units developed and not land use type, therefore the landuse type developed is irrelevant in determining construction emissions. Due to the numerous types of land-use that will be developed throughout the Community Plan development peroid, it was assumed that up to 5 individual development projects would occur during any one year. Construction modeling accounts for average duration and equipment usage based on development of 1/10 of the residential and 1/10 of the non-residential development within one year. As land use type is not critical to construction emissions and an average composit emission scenario was determined, Construction modeling only shows development of 165 homes on 49 acres of land. Architectural Coating is modeled separately for 1/10 of each landuse type.

Winton

Project Construction Assumptions

Construction Schedule

Phases (if applicable)		CalEEMod Default (# Days)	Project Revised (# Days)	Start (month/date/year)	Finish (month/date/year)
Residential					
	Demolition	70	14	1/1/2020	1/20/2020
	Site Preparation	40	8	1/21/2020	1/30/2020
	Grading/Excavation	110	22	2/1/2020	3/3/2020
	Building Construction	1110	217	3/4/2020	12/31/2020
	Paving	75	75	3/4/2020	6/16/2020
	Architectural Coating	75	75	9/18/2020	12/31/2020
Construction days*		1330	260		
Shopping Center					
	Demolition	20	20	1/1/2020	1/28/2020
	Site Preparation	5	5	1/29/2020	2/4/2020
	Grading/Excavation	8	8	2/5/2020	2/14/2020
	Building Construction	230	227	2/15/2020	12/29/2020
	Paving	18	18	2/15/2020	3/11/2020
	Architectural Coating	18	18	12/8/2020	12/31/2020
Construction days*		263	260		
General Office					
	Demolition	20	20	1/1/2020	1/28/2020
	Site Preparation	3	3	1/29/2020	1/31/2020
	Grading/Excavation	6	6	2/1/2020	2/10/2020
	Building Construction	220	220	2/11/2020	12/14/2020
	Paving	10	10	2/11/2020	2/24/2020
	Architectural Coating	10	10	12/15/2020	12/28/12020
Construction days*		249	260		
Industrial					
	Demolition	20	19	1/1/2020	1/27/2020
	Site Preparation	10	9	1/28/2020	2/7/2020
	Grading/Excavation	20	19	2/8/2020	3/5/2020
	Building Construction	230	214	3/6/2020	12/30/2020
	Paving	20	20	3/6/2020	4/2/2020
	Architectural Coating	20	20	12/4/2020	12/31/2020
Construction days*		280	260		

*Modeling assumes up to 5 projects can occur during the same year totaling 1/10th of total buildout construction activity. Because exact phasing of construction is not known, an average project length has been determined based on CalEEMod defaults for building 1/10th of each landuse type to be constructed. This assumes all project construction occurrs within one year. This is a conservative approach as total buildout is scheduled for 15 years and it is unknown if all development will actually occur. This approach provides for maximum flexibility in building out the community plan.

Winton

Project Construction Assumptions

All remaining construction information uses Default settings, with the exception of Silt loading and construction equipment as discussed below.

Soils are anticipated to be balanced onsite
Silt loading is the same as used for operational purposes and based on Merced County specifics
Equipment defaults used

Winton

Project Construction Assumptions

Construction Equipment by phase (Assumes one Project's worth of equipment per phase)

	Daily Worker	Trips Daily Vendor	Total Haul
Residential			
Demolition	15		16
Site Preparation	18		
Grading/Excavation	20		
Building Construction	152	54	
Paving	15		
Architectural Coating	30		
Shopping Center			
Demolition	15		2
Site Preparation	18		
Grading/Excavation	15		
Building Construction	39	17	
Paving	20		
Architectural Coating	8		
General Office			
Demolition	13		2
Site Preparation	8		
Grading/Excavation	10		
Building Construction	22	10	
Paving	15		
Architectural Coating	4		
Industrial			
Demolition	15		2
Site Preparation	18		
Grading/Excavation	15		
Building Construction	72	28	
Paving	15		
Architectural Coating	14		
Miles per trip	10.8	7.3	20

Winton

Project Construction Schedule

Phase #	PhaseName	SFR	Apt	GO	SM	IP	Average
1	Demolition	50	10	20	20	20	24
2	Site Preparation	30	1	2	5	10	10
3	Grading	75	2	4	8	20	22
4	Building Construction	740	100	200	230	230	300
5	Paving	55	5	10	18	20	22
6	Architectural Coating	55	5	10	18	20	22

		SFR		Apartment		General Office		Strip Mall		Industrial Park		Average	
PhaseName	OffRoadEquipmentType	#	Hours	#	Hours	#	Hours	#	Hours	#	Hours	#	Hours
Demolition	Concrete/Industrial Saws	1	8	1	8	1	8	1	8	1	8	1	8
Demolition	Excavators	3	8	0	0	0	0	3	8	3	8	2	5
Demolition	Rubber Tired Dozers	2	8	1	8	1	8	2	8	2	8	2	8
Demolition	Tractors/Loaders/Backhoes	0	0	3	8	3	8	0	0	0	0	2	4
Site Preparation	Graders	0	0	1	8	1	8	0	0	0	0	1	4
Site Preparation	Rubber Tired Dozers	3	8	1	7	1	7	3	8	3	8	3	8
Site Preparation	Tractors/Loaders/Backhoes	4	8	1	8	1	8	4	8	4	8	3	8
Grading	Excavators	2	8		0	0		1	8	1	8	1	6
Grading	Graders	1	8	1	6	1	6	1	8	1	8	1	8
Grading	Rubber Tired Dozers	1	8	1	6	1	6	1	8	1	8	1	8
Grading	Scrapers	2	8	0	0	0	0	0	0	0	0	1	2
Grading	Tractors/Loaders/Backhoes	2	8	1	7	1	7	3	8	3	8	2	8
Building Construction	Cranes	1	7	1	6	1	6	1	7	1	7	1	7
Building Construction	Forklifts	3	8	1	6	1	6	3	8	3	8	3	8
Building Construction	Generator Sets	1	8	1	8	1	8	1	8	1	8	1	8
Building Construction	Tractors/Loaders/Backhoes	3	7	1	6	1	6	3	7	3	7	3	7
Building Construction	Welders	1	8	3	8	3	8	1	8	1	8	2	8
Paving	Cement and Mortar Mixers	0	0	1	6	1	6	2	6	0	0	1	4
Paving	Pavers	2	8	1	6	1	6	1	8	2	8	2	8
Paving	Paving Equipment	2	8	1	8	1	8	2	6	2	8	2	8
Paving	Rollers	2	8	1	7	1	7	2	6	2	8	2	8
Paving	Tractors/Loaders/Backhoes			1	8	1	8	1	8	0	0	1	6
Architectural Coating	Air Compressors	1	6	1	6	1	6	1	6	1	6	1	6

Winton

Project Operational Assumptions

CalEEMod Inputs (Non-Default information only)

Project Location	
County	Merced
Air District	SJVAPCD
Climate Zone	3
Initial Operational Year	2021
Buildout Year	2035
Utility Provider	PG&E

	2020	2021	2030	2035
CO intensity	625.966	610.932	382.687	255.124
% renewable	34.57%	36.14%	60.00%	73.33%

[1] http://www.pgecorp.com/corp_responsibility/reports/2016/en02_climate_change.jsp

[2] http://www.cpuc.ca.gov/renewables/

Land Use		**Sq Ft**	**KSF**	**Units/Students**	**Acers**	**CalEEMod Land Use Type**
<u>Residential</u>						
Single Family Residential				1,647	488	
	VLD			133	126.43	
	LD			875	159.43	Single Family Residential
	MDR - Detached			639	202.10	
Apartment Mid-Rise						
	MU - Residential			29	2.34	Apartment Mid Rise
<u>Non-Residential</u>						
Shopping Center		369,469	369		35	
	GC	249,547	249.55		23.94	
	NC	67,543	67.54		6.06	Strip Mall
	Commercial Transition	28,500	28.50		4.00	
	Mixed Use	23,879	23.88		0.67	
General Office		255,204	255.20		16.01	
	Business Park	183,567	183.57		13.99	General Office
	Mixed Use	71,637	71.64		2.02	
Industrial Park		618,654	618.65		50.95	
	Industrial Park	67,953	67.95		8.99	Industrial Park
	Business Park	550,701	550.70		41.97	

	Existing	Future	Project	
Service Population	10,067	15629	5,562	employees
Service Population (# Employees)	1,149	4228	3,079	Residents
	11,216	19,857	8,641	Total

Note: The square footage used in the Air Quality and GHG modeling is the gross square footaage to accurately account for the amount of emissions generated by the operation of the existing and project land uses.

Winton
Project Operational Assumptions

Transportation:

Trip Generation

	Traffic Study trips	Traffic Study Adj. Trips[1]		Project Weekday	Project Saturday	Project Sunday	
Single Family Residential	15,548	15,548		9.44	9.83	8.55	per DU
SFR+School				11.40	10.08	8.65	per DU
Apartment Mid-Rise	212	212		7.31	7.02	6.44	per DU
Shopping Center	13,945	9,204		24.91	23.63	11.48	per KSF
General Office	2,703	2,703		10.59	2.36	1.01	per KSF
Industrial Park	3,727	3,727		6.02	2.20	0.64	per KSF
School	3,227	3,227		1.96	0.26	0.11	Per DU
	39,362	34,621	(Total from given above)				
	38,362	33,621	(Totals presented in trip gen)				

*Based on Traffic Study Information as provided.

1 shopping center Trips adjusted based on an approximately 34 percent reduction due to Pass-by trips for strip mall (retail) uses.

2 School trips from new students are accounted for in SFR trips as no new schools are being built.

VMT	Existing	E+P	Winton	Future	F+P	Winton (daily)	Winton (annual)
	219,779	468,479	248,700	293,075	608,102	315,027	114,984,855

VMT Revisions in CalEEMod

	Default VMT	**% Default**	**Traffic Study**	**Needed VMT**	Increase from Default	Revised VMT	:alEEMod Output
Apartment Mid Rise	814,483	0.77%		880,060	65,577	880,060	
General Office	5,455,939	5.13%		5,895,216	439,277	5,895,216	
Industrial Park	7,735,614	7.27%		8,358,436	622,822	8,358,436	
Single Family Residential	70,046,857	65.82%		75,686,581	5,639,724	75,686,581	
Strip Mall	22,363,959	21.02%		24,164,562	1,800,603	24,164,562	
Total	106,416,852		114,984,855			114,984,855	114,998,793
	8%						

Notes: Using 100% primary trips and 100% H-W or C-C total VMT equals 106,416,852

Change in Trip Length

	Original	**Increase**	**Revised**	**Revised2**
Residential	10.80	0.87	11.67	11.67
Commercial	7.30	0.59	7.89	7.87
Industrial			7.89	7.88
CalEEMod VMT Output:			114,998,793	114,985,017
Difference:			13,938	162
				(Used)

Entrained Road Dust

(Merced County)	Freeway	Major	Collector	Local	Total	Composit
Travel Fractions	0.244	0.527	0.125	0.104	1	
Silt Loading	0.02	0.032	0.032	0.32		0.059024

*CARB 2014. *Miscellaneous Process Methodology 7.9 Entrained Road Travel, Paved Road Dust. Revised April 2014*

Winton

Project Operational Assumptions

The default CalEEMod fleet mix for Merced County has heavy duty trucks at 15.08 percent of the total fleet. This is due to the rural nature of the county and the amount of agriculture that occurs. The proposed project is a mix of residential, commercial, and retail uses which would not see that level of intensity of heavy duty trucks. Based on the type of development expected within the project area it is not anticpated that the heavy duty truck trips would exceed this level. Therefore, the fleet mix for the project was adjusted to reduce heavy duty vehicle trips to 2 percent as shown below.

	Default	Revised
LDA	0.53395324	0.62414691
LDT1	0.04020449	0.0469957
LDT2	0.13	0.14953085
MDV	0.0897003	0.10485218
LHD1	0.01505015	0.01759237
LHD2	0.00399704	0.00467221
MHD	0.01804909	0.02109788

	Default	Revised
HHD	0.161616967	0.02
OBUS	0.001441866	0.0016854
UBUS	0.001280721	0.0014971
MCY	0.004728537	0.0055273
SBUS	0.001593712	0.0018629
MH	0.00046132	0.0005392
Total	1	1

Winton
Project Operational Assumptions

Area Source Defaults

Energy Use

Electricity — Defaults adjusted for Title 24 changes for Project, Existing usage provided.

Natural Gas — Defaults adjusted for Title 24 changes for Project, Existing usage provided.

CalEEMod currently uses 2016 Title 24 efficiency standards. The project will be built post 2019 therefore as a conservative estimate of T24 efficiencies required, the emission factors are updated to account for the inclusion of 2019 Title 24 standards. Existing consumption was based on the average consumption over the last 7 years as provided (Source: Miramar UTILITIES Stats 2011-2017 aug.xls).

	T24 Electricity	Lighting	T24 NG
Residential 2019	7%	0%	7%
Non-Residential 2019	30%	0%	30%

Default	T24 Electricity	Lighting	T24 NG
Single Family Residential	995.93	1,608.84	22,422.24
Apartment Mid-Rise	700.71	741.44	8,454.86
Shopping Center	2.14	3.71	8.62
General Office	2.62	2.92	12.77
Industrial Park	2.62	2.92	1.28

Project

	T24 Electricity	Lighting	T24 NG
Single Family Residential	926.215	1,608.840	20,852.683
Apartment Mid-Rise	651.660	741.440	7,863.020
Shopping Center	1.498	3.710	6.034
General Office	1.834	2.920	8.939
Industrial Park	1.834	2.920	0.894

Winton

Project Operational Assumptions

Water Use — Default

Removal of Septic

Septic	Aerobic	Lagoons
10.33	87.46	2.21
	0.98	0.02
	10.08	0.25
0.00	97.54	2.46

* Multifamily indoor water use reduced by 35%
*Multifamily outdoor water use reduced by 25%
Title 24 2013 20% indoor for Non-Residential

Solid Waste Generation: **Tons/year**

	2035			
	CalEEMod	**Reduced[2]**		
Single Family Residential	1695.60	712.15	0.571151489	33.12678637
Apartment Mid-Rise	13.34	5.60	0.00449349	0.260622393
Shopping Center	387.94	147.42	0.118229751	7.330244534
General Office	237.34	90.19	0.072332446	4.484611635
Industrial Park	767.13	291.51	0.233792825	14.49515515
	3,101.35	1,246.87	1.00	0.596974201

[2] CalEEMod doesn't take into account the fact that California on a whole has reduced waste to landfill by 62% for employee and 58% for Residential. Modeling accounts for recycling based on land use types. http://www.calrecycle.ca.gov/lgcentral/goalmeasure/disposalrate/Graphs/EstDiversion.htm. Data from 2017 accessed April 2020.

Air Quality Appendix

B. Emissions Summary

1. Unmitigated Construction

Winton
Maximum Daily Unmitigated Construction Emissions

CalEEMod	2016.3.2	Title:	Winton - Construction Only - SFR	Date:	4/5/2020
			Winton - Construction - Shopping Center - Unmitigated		4/6/2020
			Winton - General Office - Unmitigated		4/6/2020
			Winton - Construction Industrial - Unmitigated		4/6/2020
EMFAC	2017	Title:	Winton	Date:	4/6/2020

Unmitigated - Construction

	ROG	NOx	CO	SOx	PM10 Total	PM2.5 Total
	Max Annual (tons/year)					
Residential	5	7	6	0	1	0
Shopping Center	1	3	3	0	0	0
General Commercial	0	1	0	0	0	0
Industrial	1	3	3	0	0	0
Total Annual	7	14	12	0	1	1
Threshold	10	**10**	100	27	15	15
Exceed Threshold?	No	**Yes**	No	No	No	No
	Cumulative (lbs/day)					
Residential	38	51	47	0	6	3
Shopping Center	5	24	21	0	2	1
General Commercial	2	4	3	0	0	0
Industrial	6	26	22	0	2	2
Max Daily	51	105	93	0	11	6
Threshold	100	**100**	**100**	100	100	100
Exceed Threshold?	No	Yes	No	No	No	No

Winton
Maximum Daily Unmitigated Construction Emissions

Unmitigated - Construction

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
		(lbs/day)									
Residential	Demolition	3.43	34.59	23.04	0.04	0.26	1.70	1.96	0.06	1.59	1.64
	Site Preparation	4.18	43.46	22.65	0.04	7.01	2.25	9.25	3.80	2.07	5.87
	Grading	4.57	51.42	33.39	0.06	7.48	2.22	9.70	1.84	2.05	3.89
	Build Const	2.68	26.32	25.75	0.06	1.61	1.21	2.82	0.44	1.14	1.58
	Paving	1.54	14.12	15.16	0.02	0.12	0.75	0.88	0.03	0.69	0.73
	Arch. Coating	77.16	1.78	2.85	0.01	0.25	0.11	0.36	0.07	0.11	0.18
Shopping Center	Demolition	3.37	33.92	22.65	0.04	0.15	1.68	1.83	0.04	1.56	1.60
	Site Preparation	4.14	42.95	22.39	0.04	6.91	2.22	9.13	3.76	2.04	5.81
	Grading	2.47	26.74	16.92	0.03	0.17	1.29	1.45	0.04	1.19	1.23
	Build Const	2.28	21.37	19.32	0.03	0.43	1.14	1.58	0.12	1.08	1.19
	Paving	1.42	11.86	12.96	0.02	0.16	0.65	0.82	0.04	0.60	0.64
	Arch. Coating	30.30	1.71	2.10	0.00	0.07	0.11	0.18	0.02	0.11	0.13
General Commercial	Demolition	2.15	21.27	15.23	0.03	0.13	1.15	1.29	0.03	1.08	1.12
	Site Preparation	1.66	19.96	11.54	0.03	0.65	0.78	1.43	0.08	0.71	0.80
	Grading	1.93	21.37	10.27	0.02	2.51	0.99	3.50	1.27	0.91	2.18
	Build Const	0.10	1.30	1.44	0.00	0.25	0.02	0.27	0.07	0.02	0.08
	Paving	1.36	11.63	12.31	0.02	0.12	0.66	0.78	0.03	0.61	0.64
	Arch. Coating	37.09	1.70	1.97	0.00	0.03	0.11	0.14	0.01	0.11	0.12
Industrial	Demolition	3.42	34.30	22.91	0.04	0.15	1.71	1.86	0.04	1.59	1.63
	Site Preparation	3.96	41.17	21.44	0.04	6.63	2.13	8.76	3.61	1.96	5.57
	Grading	2.50	27.05	16.94	0.03	2.62	1.30	3.93	1.31	1.20	2.51
	Build Const	2.41	22.91	21.27	0.04	0.78	1.17	1.95	0.21	1.10	1.31
	Paving	1.70	14.12	15.16	0.02	0.12	0.75	0.88	0.03	0.69	0.73
	Arch. Coating	45.54	1.73	2.31	0.00	0.11	0.11	0.23	0.03	0.11	0.14

Air Quality Appendix
B. Emissions Summary
2. Mitigated Construction

Winton
Maximum Daily Unmitigated Construction Emissions

CalEEMod	2016.3.2	Title:	Winton - Construction Only - Residential - Mitigated	Date:	4/5/2020
			Winton - Construction - Shopping Center - Mitigated		4/6/2020
			Winton - General Office - Mitigated		4/6/2020
			Winton - Construction Industrial - Mitigated		4/6/2020
EMFAC	2017	Title:	Winton	Date:	4/6/2020

Mitigated - Construction

	ROG	NOx	CO	SOx	PM10 Total	PM2.5 Total
	Max Annual (tons/year)					
Residential	6	2	9	0	1	0
Shopping Center	0	1	3	0	0	0
General Commercial	0	1	2	0	0	0
Industrial	1	1	3	0	0	0
Total Annual	7	5	17	0	1	0
Threshold	10	**10**	100	27	15	15
Exceed Threshold?	No	**No**	No	No	No	No
	Cumulative (lbs/day)					
Residential	47	18	66	0	5	2
Shopping Center	3	5	22	0	1	0
General Commercial	3	6	17	0	1	0
Industrial	4	6	24	0	1	1
Total Annual	57	35	128	0	8	3
Threshold	100	**100**	**100**	100	100	100
Exceed Threshold?	No	No	Yes	No	No	No

Notes:

1. Tier 4 Equipment

Winton
Maximum Daily Unmitigated Construction Emissions

Mitigated - Construction

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
		(lbs/day)									
Residential	Demolition	0.52	2.67	24.61	0.04	0.26	0.07	0.33	0.06	0.07	0.13
	Site Preparation	0.49	2.12	21.98	0.04	7.01	0.06	7.07	3.80	0.06	3.86
	Grading	0.80	3.44	34.46	0.06	7.48	0.11	7.58	1.84	0.11	1.94
	Build Const	1.18	9.94	26.63	0.06	1.61	0.22	1.83	0.44	0.22	0.65
	Paving	0.47	1.26	17.81	0.02	0.12	0.04	0.16	0.03	0.04	0.07
	Arch. Coating	76.95	0.23	2.85	0.01	0.25	0.01	0.25	0.07	0.01	0.07
Shopping Center	Demolition	0.91	7.22	22.72	0.04	0.15	0.31	0.46	0.04	0.29	0.33
	Site Preparation	0.48	2.10	21.74	0.04	6.91	0.07	6.97	3.76	0.07	3.83
	Grading	0.52	3.28	18.16	0.03	2.62	0.13	2.75	1.31	0.12	1.43
	Build Const	0.79	5.01	20.20	0.03	0.43	0.15	0.59	0.12	0.15	0.27
	Paving	0.54	1.56	14.68	0.02	0.16	0.05	0.22	0.04	0.05	0.10
	Arch. Coating	30.09	0.15	2.10	0.00	0.07	0.00	0.07	0.02	0.00	0.02
General Commercial	Demolition	0.31	1.54	15.29	0.03	0.13	0.04	0.17	0.03	0.04	0.07
	Site Preparation	0.31	1.33	12.14	0.03	0.65	0.04	0.69	0.08	0.04	0.12
	Grading	0.26	1.13	11.24	0.02	2.51	0.03	2.54	1.27	0.03	1.30
	Build Const	1.32	6.87	17.19	0.03	0.25	0.30	0.55	0.07	0.30	0.37
	Paving	0.48	1.33	13.79	0.02	0.12	0.04	0.17	0.03	0.04	0.08
	Arch. Coating	36.87	0.14	1.97	0.00	0.03	0.00	0.04	0.01	0.00	0.01
Industrial	Demolition	0.50	2.38	24.47	0.04	0.15	0.07	0.22	0.04	0.07	0.11
	Site Preparation	0.47	2.01	20.82	0.04	6.63	0.06	6.69	3.61	0.06	3.67
	Grading	0.38	1.66	18.69	0.03	2.62	0.05	2.67	1.31	0.05	1.37
	Build Const	0.91	6.49	22.16	0.04	0.78	0.17	0.96	0.21	0.17	0.38
	Paving	0.62	1.27	17.81	0.02	0.12	0.04	0.16	0.03	0.04	0.07
	Arch. Coating	45.33	0.17	2.31	0.00	0.11	0.00	0.12	0.03	0.00	0.04

Air Quality Appendix

B. Emissions Summary

3. Unmitigated Operational

Winton
Unmitigated Operational Impacts

CalEEMod	2016.3.2			
Title:	Winton - Operational		Date:	4/13/2020
EMFAC 2017	Winton		Date:	4/6/2020

Unmitigated Emissions

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
			Max (tons/year)			
Area	*21*	*1*	*13*	*0*	*0*	*0*
Energy	*0*	*2*	*1*	*0*	*0*	*0*
Mobile	*9*	*20*	*95*	*0*	*43*	*12*
Total	***30***	***23***	***109***	***0***	***44***	***12***
Thresholds	**10**	**10**	**100**	**27**	**15**	**15**
Exceeds Thresholds?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**No**
			Cumulative (lbs/day)			
Total Program	**164**	**128**	**596**	**2**	**239**	**66**
Thresholds	***100***	***100***	***100***	***100***	***100***	***100***
Exceeds Thresholds?	***Yes***	***Yes***	***Yes***	***No***	***Yes***	***No***

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
			Max (tons/year)			
Mixed Use	*0*	*0*	*1*	*0*	*0*	*0*
General Office	*2*	*1*	*7*	*0*	*2*	*1*
Industrial	*3*	*2*	*12*	*0*	*3*	*1*
Single Family Res.	*22*	*16*	*65*	*0*	*29*	*8*
Shopping	*3*	*4*	*23*	*0*	*9*	*3*
Total	***30***	***23***	***109***	***0***	***44***	***12***
Thresholds	**10**	**10**	**100**	**27**	**15**	**15**
Exceeds Thresholds?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**No**
			Cumulative (lbs/day)			
Mixed Use	1	1	4	0	2	1
General Office	8	6	39	0	12	3
Industrial	17	9	67	0	17	5
Single Family Res.	**118**	87	**358**	1	**158**	44
Shopping	19	24	**127**	0	50	14
Total Program	**164**	**128**	**596**	**1**	**239**	**66**
Thresholds	***100***	***100***	***100***	***100***	***100***	***100***
Exceeds Thresholds?	***Yes***	***Yes***	***Yes***	***No***	***Yes***	***No***

Winton
Unmitigated Operational Impacts - Project

Unmitigated Emissions - Buildout

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
	Max (tons/year)					
Area	*20.66*	*0.77*	*12.68*	*0.00*	*0.12*	*0.12*
Energy	*0.25*	*2.18*	*1.05*	*0.01*	*0.17*	*0.17*
Mobile	*9.00*	*20.38*	*95.00*	*0.34*	*43.36*	*11.78*
Total	***29.92***	***23.32***	***108.73***	***0.36***	***43.65***	***12.08***

PM10

Fugitive	Exhaust
1.2106	***0.0365***

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
	Max (tons/year)					
Mixed Use	0.22	0.18	0.77	0.00	0.33	0.09
General Office	1.52	1.19	7.15	0.02	2.24	0.63
Industrial	3.18	1.58	12.22	0.03	3.18	0.89
Single Family Res.	21.58	15.91	65.37	0.24	28.75	7.97
Shopping	3.42	4.47	23.25	0.07	9.14	2.51
Total	29.92	23.32	108.76	0.36	43.65	12.08

Air Quality Appendix
B. Emissions Summary
4. Mitigated Operational

Winton
Mitigated Operational Impacts

CalEEMod 2016.3.2
Title: Winton - Operational - Mitigated Date: 4/13/2020
EMFAC 2017 Winton Date: 4/6/2020

Unmitigated Emissions

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
	Max (Lbs/day)					
Area	*20*	*1*	*13*	*0*	*0*	*0*
Energy	*0*	*2*	*1*	*0*	*0*	*0*
Mobile	*9*	*20*	*95*	*0*	*43*	*12*
Total	***29***	***23***	***109***	***0***	***44***	***12***
Thresholds	**10**	**10**	**100**	**27**	**15**	**15**
Exceeds Thresholds?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**No**
	Cumulative (lbs/day)					
Total Program	**161**	**128**	**596**	**2**	**239**	**66**
Thresholds	***100***	***100***	***100***	***100***	***100***	***100***
Exceeds Thresholds?	***Yes***	***Yes***	***Yes***	***No***	***Yes***	***No***

Mitigation Measures:

1 *NG Fireplace*
2 *Use low VOC paints - Non-Residential (50 g/l indoor; 100 g/l outdoor)*
3 *Provide for electric landscaping equipment use.*
4 *GHG-1 (Not Quantified)*

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
	Max (tons/year)					
Mixed Use	*0*	*0*	*1*	*0*	*0*	*0*
General Office	*1*	*1*	*7*	*0*	*2*	*1*
Industrial	*3*	*2*	*12*	*0*	*3*	*1*
Single Family Res.	*22*	*16*	*65*	*0*	*29*	*8*
Shopping	*3*	*4*	*23*	*0*	*9*	*3*
Total	***29***	***23***	***109***	***0***	***44***	***12***
Thresholds	**10**	**10**	**100**	**27**	**15**	**15**
Exceeds Thresholds?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**No**
	Cumulative (lbs/day)					
Mixed Use	1	1	4	0	2	1
General Office	8	6	39	0	12	3
Industrial	16	9	67	0	17	5
Single Family Res.	**118**	87	**358**	1	**158**	44
Shopping	18	24	**127**	0	50	14
Total Program	**161**	**128**	**596**	**1**	**239**	**66**
Thresholds	***100***	***100***	***100***	***100***	***100***	***100***
Exceeds Thresholds?	***Yes***	***Yes***	***Yes***	***No***	***Yes***	***No***

Winton
Unmitigated Operational Impacts - Project

Unmitigated Emissions - Buildout

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
	Max (Lbs/day)					
Area	*20.16*	*0.77*	*12.68*	*0.00*	*0.12*	*0.12*
Energy	*0.25*	*2.18*	*1.05*	*0.01*	*0.17*	*0.17*
Mobile	*9.00*	*20.38*	*95.00*	*0.34*	*43.36*	*11.78*
Total	***29***	***23***	***109***	***0***	***44***	***12***

PM10

Fugitive	Exhaust
1.2106	***0.0365***

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
	Max (tons/year)					
Mixed Use	0.22	0.18	0.77	0.00	0.33	0.09
General Office	1.41	1.19	7.15	0.02	2.24	0.63
Industrial	2.93	1.58	12.22	0.03	3.18	0.89
Single Family Res.	21.58	15.91	65.37	0.24	28.75	7.97
Shopping	3.27	4.47	23.25	0.07	9.14	2.51
Total	29.42	23.32	108.76	0.36	43.65	12.08

Air Quality Appendix

C. Modeling Output

1. CO Hotspot

Winton
CO Hotspot Analysis

Existing Plus Project

#	Road 1	Road 2	Total Daily	Total	NBL	NBT	NBR	WBL	WBT	WBR	SBL	SBT	SBR	EBL	EBT	EBR
7	Cypress Ave	Walnut Ave	12,060	1,206	111		131	136	354						331	143
8	Santa Fe Dr	Walnut Dr	17,780	1,778	298	296	23	22	165	43	52	331	54	42	226	226
9	Winton Way	Walnut Ave	8,250	825	23	159	39	67	55	29	16	179	47	67	112	32
12	Santa Fe Dr	Winton Way	15,730	1,573	139	183	157	145	250	32	51	197	10	9	235	165
13	Cypress Ave	Almond Ave	9,700	970	47	108	52	51	135	75	70	92	37	79	168	56
17	Winton Way	Gertrude Ave	22,720	2,272	106	652	70	101	16	227	155	675	47	41	75	107
18	Santa Fe Dr	Schaffer Rd	22,990	2,299	199	104	193	262	546	72	101	159	7	3	464	189
19	Winton Way	Camelia Ave	17,830	1,783		792	51	63		10	31	836				
21	Winton Way	Bellvue Rd	24,190	2,419	32	657	177	182	75	246	5	928	10	44	43	20
23	Winton Way	Olivia Ave	15,780	1,578	98	623	13	3	1	1	0	592	51	118	0	78
25	Winton Way	Sycamore Ave	17,650	1,765	198	654	0	4	1	6	3	553	64	118	1	163
		Max	**24,190**													
		Screening Level	**100,000**													
		Exceed Threshold?	**No**													

Winton
CO Hotspot Analysis

Cumulattive Plus Project

#	Road 1	Road 2	Total Daily	Total	1	2	3	4	5	6	7	8	9	10	11	12
7	Cypress Ave	Walnut Ave	17,050	1,705	540	160	140	560	170	135						
8	Santa Fe Dr	Walnut Dr	21,750	2,175	45	360	270	25	315	45	55	320	55	355	305	25
9	Winton Way	Walnut Ave	17,500	1,750	100	270	95	145	220	35	85	265	140	25	280	90
11	Schaffer Rd	Walnut Ave	11,140	1,114	155	0	45	1	2	0	55	305	1	0	350	200
12	Santa Fe Dr	Winton Way	28,400	2,840	300	415	235	100	410	10	10	355	295	230	410	70
13	Cypress Ave	Almond Ave	12,650	1,265	80	200	100	55	180	115	110	125	55	100	105	40
17	Winton Way	Gertrude Ave	27,100	2,710	45	90	150	105	135	240	165	750	70	165	745	50
18	Santa Fe Dr	Schaffer Rd	26,400	2,640	200	225	195	110	260	10	5	505	190	265	600	75
19	Winton Way	Camelia Ave	20,550	2,055	60	20	940	60	40	935						
21	Winton Way	Bellvue Rd	32,700	3,270	145	125	35	230	235	385	60	645	225	585	565	35
23	Winton Way	Olivia Ave	20,750	2,075	240	0	160	3	1	1	205	790	15	0	560	100
24	Winton Way	Atwater Blvd	31,750	3,175	190	555	95	250	290	160	50	600	315	155	380	135
25	Winton Way	Sycamore Ave	21,970	2,197	250	1	230	3	2	1	295	685	0	5	545	180
		Max	**32,700**													
		Screening Level	**100,000**													
		Exceed Threshold?	**No**													

Air Quality Appendix

C. Modeling Output

2. EMFAC2017

Winton
Total On-Road Emissions

Winton

Total On-Road Emissions

260 Max construction days per year

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)
Demolition - Res	2020				
Total Haul Trips	16	0	0	0	0
Hauling	2	14	10	20	15
Vendor	0	14	10	7.3	15
Worker	15	14	10	10.8	0
Site Prep - Res	2020				
Total Haul Trips	0	0	0	0	0
Hauling	0	8	10	20	15
Vendor	0	8	10	7.3	15
Worker	18	8	10	10.8	0
Grading - Res	2020				
Total Haul Trips	0	0	0	0	0
Hauling	0	22	10	20	15
Vendor	0	22	10	7.3	15
Worker	20	22	10	10.8	0
Building Construction - Res	2020				
Total Haul Trips	0	0	0	0	0
Hauling	0	217	10	20	15
Vendor	54	217	10	7.3	15
Worker	152	217	10	10.8	0
Paving - Res	2020				
Total Haul Trips	0	0	0	0	0
Hauling	0	75	10	20	15
Vendor	0	75	10	7.3	15
Worker	15	75	10	10.8	0
AC - Res	2020				
Total Haul Trips	0	0	0	0	0
Hauling	0	75	10	20	15
Vendor	0	75	10	7.3	15
Worker	30	75	10	10.8	0
Demolition - SC	2020				
Total Haul Trips	16	0	0	0	0
Hauling	1	20	10	20	15
Vendor	0	20	10	7.3	15
Worker	15	20	10	10.8	0
Site Prep - SC	2020				
Total Haul Trips	0	0	0	0	0
Hauling	0	5	10	20	15
Vendor	0	5	10	7.3	15
Worker	18	5	10	10.8	0
Grading - SC	2020				
Total Haul Trips	0	0	0	0	0
Hauling	0	8	10	20	15
Vendor	0	8	10	7.3	15
Worker	20	8	10	10.8	0

Winton

Total On-Road Emissions

260 Max construction days per year

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)
BC - SC	2020				
Total Haul Trips	0	0	0	0	0
Hauling	0	227	10	20	15
Vendor	17	227	10	7.3	15
Worker	39	227	10	10.8	0
Paving - SC	2020				
Total Haul Trips	0	0	0	0	0
Hauling	0	18	10	20	15
Vendor	0	18	10	7.3	15
Worker	20	18	10	10.8	0
AC - SC	2020				
Total Haul Trips	0	0	0	0	0
Hauling	0	18	10	20	15
Vendor	0	18	10	7.3	15
Worker	8	18	10	10.8	0
Demolition - GO	2020				
Total Haul Trips	2	0	0	0	0
Hauling	1	20	10	20	15
Vendor	0	20	10	7.3	15
Worker	13	20	10	10.8	0
Site Prep - GO	2020				
Total Haul Trips	0	0	0	0	0
Hauling	0	3	10	20	15
Vendor	0	3	10	7.3	15
Worker	8	3	10	10.8	0
Grading - GO	2020				
Total Haul Trips	0	0	0	0	0
Hauling	0	6	10	20	15
Vendor	0	6	10	7.3	15
Worker	10	6	10	10.8	0
BC - GO	2020				
Total Haul Trips	0	0	0	0	0
Hauling	0	220	10	20	15
Vendor	10	220	10	7.3	15
Worker	22	220	10	10.8	0
Paving - GO	2020				
Total Haul Trips	0	0	0	0	0
Hauling	0	10	10	20	15
Vendor	0	10	10	7.3	15
Worker	15	10	10	10.8	0

Winton

Total On-Road Emissions

260 Max construction days per year

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)
AC - GO	2020				
Total Haul Trips	0	0	0	0	0
Hauling	0	10	10	20	15
Vendor	0	10	10	7.3	15
Worker	4	10	10	10.8	0
Demolition - Ind	2020				
Total Haul Trips	2	0	0	0	0
Hauling	1	19	10	20	15
Vendor	0	19	10	7.3	15
Worker	15	19	10	10.8	0
Site Prep - Ind	2020				
Total Haul Trips	0	0	0	0	0
Hauling	0	9	10	20	15
Vendor	0	9	10	7.3	15
Worker	18	9	10	10.8	0
Grading - Ind	2020				
Total Haul Trips	0	0	0	0	0
Hauling	0	19	10	20	15
Vendor	0	19	10	7.3	15
Worker	15	19	10	10.8	0
BC - Ind	2020				
Total Haul Trips	0	0	0	0	0
Hauling	0	214	10	20	15
Vendor	28	214	10	7.3	15
Worker	72	214	10	10.8	0
Paving - Ind	2020				
Total Haul Trips	0	0	0	0	0
Hauling	0	20	10	20	15
Vendor	0	20	10	7.3	15
Worker	15	20	10	10.8	0
AC - Ind	2020				
Total Haul Trips	0	0	0	0	0
Hauling	0	20	10	20	15
Vendor	0	20	10	7.3	15
Worker	14	20	10	10.8	0

Winton

Total On-Road Emissions

Construction Phase	Regional Emissions (pounds/day)										(MT/yr)
	ROG	NOX	CO	SO2	PM10 Dust	PM10 Exh	Total PM10	PM2.5 Dust	PM2.5 Exh	Total PM2.5	Total CO2e
Demolition - Res											
Total Haul Trips											
Hauling	2.0E-04	3.9E-03	1.8E-03	1.1E-05	2.5E-04	4.7E-05	2.9E-04	6.7E-05	4.5E-05	1.1E-04	1.12
Vendor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Worker	8.1E-05	3.4E-04	3.6E-03	8.1E-06	8.6E-04	5.3E-06	8.7E-04	2.3E-04	4.9E-06	2.3E-04	0.75
Site Prep - Res											
Total Haul Trips											
Hauling	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Vendor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Worker	5.6E-05	2.3E-04	2.4E-03	5.5E-06	5.9E-04	3.7E-06	5.9E-04	1.6E-04	3.4E-06	1.6E-04	0.51
Grading - Res											
Total Haul Trips											
Hauling	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Vendor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Worker	1.7E-04	7.1E-04	7.5E-03	1.7E-05	1.8E-03	1.1E-05	1.8E-03	4.8E-04	1.0E-05	4.9E-04	1.56
Building Construction - Res											
Total Haul Trips											
Hauling	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Vendor	4.8E-02	7.2E-01	4.1E-01	1.8E-03	4.0E-02	9.5E-03	4.9E-02	1.1E-02	9.1E-03	2.0E-02	178.48
Worker	1.3E-02	5.3E-02	5.6E-01	1.3E-03	1.4E-01	8.4E-04	1.4E-01	3.6E-02	7.7E-04	3.7E-02	117.19
Paving - Res											
Total Haul Trips											
Hauling	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Vendor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Worker	4.3E-04	1.8E-03	1.9E-02	4.3E-05	4.6E-03	2.9E-05	4.6E-03	1.2E-03	2.6E-05	1.2E-03	4.00
AC - Res											
Total Haul Trips											
Hauling	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Vendor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Worker	8.7E-04	3.6E-03	3.8E-02	8.6E-05	9.2E-03	5.7E-05	9.3E-03	2.4E-03	5.3E-05	2.5E-03	7.99
Demolition - SC											
Total Haul Trips											
Hauling	1.5E-04	2.8E-03	1.3E-03	8.0E-06	1.8E-04	3.4E-05	2.1E-04	4.8E-05	3.2E-05	8.0E-05	0.80
Vendor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Worker	1.2E-04	4.8E-04	5.1E-03	1.2E-05	1.2E-03	7.6E-06	1.2E-03	3.3E-04	7.0E-06	3.3E-04	1.07
Site Prep - SC											
Total Haul Trips											
Hauling	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Vendor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Worker	3.5E-05	1.5E-04	1.5E-03	3.5E-06	3.7E-04	2.3E-06	3.7E-04	9.8E-05	2.1E-06	1.0E-04	0.32
Grading - SC											
Total Haul Trips											
Hauling	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Vendor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Worker	6.2E-05	2.6E-04	2.7E-03	6.1E-06	6.6E-04	4.1E-06	6.6E-04	1.7E-04	3.7E-06	1.8E-04	0.57

Winton

Total On-Road Emissions

Construction Phase	Regional Emissions (pounds/day)										(MT/yr)
	ROG	NOX	CO	SO2	PM10 Dust	PM10 Exh	Total PM10	PM2.5 Dust	PM2.5 Exh	Total PM2.5	Total CO2e
BC - SC											
Total Haul Trips											
Hauling	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Vendor	1.6E-02	2.4E-01	1.3E-01	5.9E-04	1.3E-02	3.1E-03	1.6E-02	3.7E-03	3.0E-03	6.7E-03	58.78
Worker	3.4E-03	1.4E-02	1.5E-01	3.4E-04	3.6E-02	2.3E-04	3.7E-02	9.6E-03	2.1E-04	9.8E-03	31.45
Paving - SC											
Total Haul Trips											
Hauling	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Vendor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Worker	1.4E-04	5.8E-04	6.1E-03	1.4E-05	1.5E-03	9.2E-06	1.5E-03	3.9E-04	8.4E-06	4.0E-04	1.28
AC - SC											
Total Haul Trips											
Hauling	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Vendor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Worker	5.6E-05	2.3E-04	2.4E-03	5.5E-06	5.9E-04	3.7E-06	5.9E-04	1.6E-04	3.4E-06	1.6E-04	0.51
Demolition - GO											
Total Haul Trips											
Hauling	1.5E-04	2.8E-03	1.3E-03	8.0E-06	1.8E-04	3.4E-05	2.1E-04	4.8E-05	3.2E-05	8.0E-05	0.80
Vendor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Worker	1.0E-04	4.2E-04	4.4E-03	1.0E-05	1.1E-03	6.6E-06	1.1E-03	2.8E-04	6.1E-06	2.9E-04	0.92
Site Prep - GO											
Total Haul Trips											
Hauling	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Vendor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Worker	9.3E-06	3.9E-05	4.1E-04	9.2E-07	9.8E-05	6.1E-07	9.9E-05	2.6E-05	5.6E-07	2.7E-05	0.09
Grading - GO											
Total Haul Trips											
Hauling	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Vendor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Worker	2.3E-05	9.7E-05	1.0E-03	2.3E-06	2.5E-04	1.5E-06	2.5E-04	6.5E-05	1.4E-06	6.7E-05	0.21
BC - GO											
Total Haul Trips											
Hauling	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Vendor	9.0E-03	1.4E-01	7.6E-02	3.3E-04	7.4E-03	1.8E-03	9.2E-03	2.1E-03	1.7E-03	3.8E-03	33.51
Worker	1.9E-03	7.8E-03	8.2E-02	1.9E-04	2.0E-02	1.2E-04	2.0E-02	5.3E-03	1.1E-04	5.4E-03	17.20
Paving - GO											
Total Haul Trips											
Hauling	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Vendor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Worker	5.8E-05	2.4E-04	2.5E-03	5.8E-06	6.2E-04	3.8E-06	6.2E-04	1.6E-04	3.5E-06	1.7E-04	0.53

Winton

Total On-Road Emissions

Construction Phase	Regional Emissions (pounds/day)										(MT/yr)
	ROG	NOX	CO	SO2	PM10 Dust	PM10 Exh	Total PM10	PM2.5 Dust	PM2.5 Exh	Total PM2.5	Total CO2e
AC - GO											
Total Haul Trips											
Hauling	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Vendor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Worker	1.5E-05	6.4E-05	6.8E-04	1.5E-06	1.6E-04	1.0E-06	1.7E-04	4.4E-05	9.4E-07	4.4E-05	0.14
Demolition - Ind											
Total Haul Trips											
Hauling	1.4E-04	2.7E-03	1.2E-03	7.6E-06	1.7E-04	3.2E-05	2.0E-04	4.6E-05	3.1E-05	7.6E-05	0.76
Vendor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Worker	1.1E-04	4.6E-04	4.8E-03	1.1E-05	1.2E-03	7.2E-06	1.2E-03	3.1E-04	6.7E-06	3.2E-04	1.01
Site Prep - Ind											
Total Haul Trips											
Hauling	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Vendor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Worker	6.3E-05	2.6E-04	2.7E-03	6.2E-06	6.6E-04	4.1E-06	6.7E-04	1.8E-04	3.8E-06	1.8E-04	0.58
Grading - Ind											
Total Haul Trips											
Hauling	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Vendor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Worker	1.1E-04	4.6E-04	4.8E-03	1.1E-05	1.2E-03	7.2E-06	1.2E-03	3.1E-04	6.7E-06	3.2E-04	1.01
BC - Ind											
Total Haul Trips											
Hauling	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Vendor	2.4E-02	3.7E-01	2.1E-01	9.1E-04	2.0E-02	4.9E-03	2.5E-02	5.8E-03	4.6E-03	1.0E-02	91.27
Worker	6.0E-03	2.5E-02	2.6E-01	5.9E-04	6.3E-02	3.9E-04	6.4E-02	1.7E-02	3.6E-04	1.7E-02	54.74
Paving - Ind											
Total Haul Trips											
Hauling	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Vendor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Worker	1.2E-04	4.8E-04	5.1E-03	1.2E-05	1.2E-03	7.6E-06	1.2E-03	3.3E-04	7.0E-06	3.3E-04	1.07
AC - Ind											
Total Haul Trips											
Hauling	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Vendor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00
Worker	1.1E-04	4.5E-04	4.8E-03	1.1E-05	1.1E-03	7.1E-06	1.2E-03	3.0E-04	6.6E-06	3.1E-04	0.99

Winton
Running Emissions

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Running Emissions

		Running Emissions Factor (grams/mile)					
		ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling	Hauling	0.13738541	3.97914438	0.53167772	0.0136971	0.07080069	0.06773785
2020Vendor	Vendor	0.23063504	3.981372589	0.86968806	0.01261836	0.09188124	0.08790297
2020Worker	Worker	0.03246709	0.135413512	1.42558666	0.0032239	0.00213525	0.00196631
2021Hauling	Hauling	0.10531685	3.504330027	0.44557578	0.01342546	0.05844684	0.05591843
2021Vendor	Vendor	0.18355599	3.451446779	0.72194662	0.0123914	0.07514109	0.0718873
2021Worker	Worker	0.02794818	0.115577268	1.26808315	0.00313655	0.00202543	0.00186498
2035Hauling	Hauling	0.02073814	2.15902979	0.21180268	0.00982305	0.02545043	0.02434945
2035Vendor	Vendor	0.01687791	1.918046009	0.18598446	0.00958033	0.01690446	0.01617037
2035Worker	Worker	0.00411446	0.023202235	0.47027231	0.0021832	0.00086293	0.00079412
	GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day) ROG	NOX	CO	SO2	PM10	PM2.5
Demolition - Res	2020									
Total Haul Trips	16									
Hauling	2	14	10	20	0.01	0.35	0.05	0.00	0.01	0.01
Vendor	0	14	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	15	14	10	10.8	0.01	0.05	0.51	0.00	0.00	0.00
Site Prep - Res	2020									
Total Haul Trips	0									
Hauling	0	8	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	8	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	18	8	10	10.8	0.01	0.06	0.61	0.00	0.00	0.00

Winton

Running Emissions

	Running Emissions Factor (grams/mile)					
	ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling Hauling	0.13738541	3.97914438	0.53167772	0.0136971	0.07080069	0.06773785
2020Vendor Vendor	0.23063504	3.981372589	0.86968806	0.01261836	0.09188124	0.08790297
2020Worker Worker	0.03246709	0.135413512	1.42558666	0.0032239	0.00213525	0.00196631
2021Hauling Hauling	0.10531685	3.504330027	0.44557578	0.01342546	0.05844684	0.05591843
2021Vendor Vendor	0.18355599	3.451446779	0.72194662	0.0123914	0.07514109	0.0718873
2021Worker Worker	0.02794818	0.115577268	1.26808315	0.00313655	0.00202543	0.00186498
2035Hauling Hauling	0.02073814	2.15902979	0.21180268	0.00982305	0.02545043	0.02434945
2035Vendor Vendor	0.01687791	1.918046009	0.18598446	0.00958033	0.01690446	0.01617037
2035Worker Worker	0.00411446	0.023202235	0.47027231	0.0021832	0.00086293	0.00079412
GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day)					
					ROG	NOX	CO	SO2	PM10	PM2.5
Grading - Res	2020									
Total Haul Trips	0									
Hauling	0	22	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	22	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	20	22	10	10.8	0.02	0.06	0.68	0.00	0.00	0.00
Building Construction - Res	2020									
Total Haul Trips	0									
Hauling	0	217	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	54	217	10	7.3	0.20	3.46	0.76	0.01	0.08	0.08
Worker	152	217	10	10.8	0.12	0.49	5.16	0.01	0.01	0.01

Winton
Running Emissions

	Running Emissions Factor (grams/mile) ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling Hauling	0.13738541	3.97914438	0.53167772	0.0136971	0.07080069	0.06773785
2020Vendor Vendor	0.23063504	3.981372589	0.86968806	0.01261836	0.09188124	0.08790297
2020Worker Worker	0.03246709	0.135413512	1.42558666	0.0032239	0.00213525	0.00196631
2021Hauling Hauling	0.10531685	3.504330027	0.44557578	0.01342546	0.05844684	0.05591843
2021Vendor Vendor	0.18355599	3.451446779	0.72194662	0.0123914	0.07514109	0.0718873
2021Worker Worker	0.02794818	0.115577268	1.26808315	0.00313655	0.00202543	0.00186498
2035Hauling Hauling	0.02073814	2.15902979	0.21180268	0.00982305	0.02545043	0.02434945
2035Vendor Vendor	0.01687791	1.918046009	0.18598446	0.00958033	0.01690446	0.01617037
2035Worker Worker	0.00411446	0.023202235	0.47027231	0.0021832	0.00086293	0.00079412
GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day) ROG	NOX	CO	SO2	PM10	PM2.5
Paving - Res	2020									
Total Haul Trips	0									
Hauling	0	75	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	75	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	15	75	10	10.8	0.01	0.05	0.51	0.00	0.00	0.00
AC - Res	2020									
Total Haul Trips	0									
Hauling	0	75	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	75	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	30	75	10	10.8	0.02	0.10	1.02	0.00	0.00	0.00

Winton
Running Emissions

		Running Emissions Factor (grams/mile)					
		ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling	Hauling	0.13738541	3.97914438	0.53167772	0.0136971	0.07080069	0.06773785
2020Vendor	Vendor	0.23063504	3.981372589	0.86968806	0.01261836	0.09188124	0.08790297
2020Worker	Worker	0.03246709	0.135413512	1.42558666	0.0032239	0.00213525	0.00196631
2021Hauling	Hauling	0.10531685	3.504330027	0.44557578	0.01342546	0.05844684	0.05591843
2021Vendor	Vendor	0.18355599	3.451446779	0.72194662	0.0123914	0.07514109	0.0718873
2021Worker	Worker	0.02794818	0.115577268	1.26808315	0.00313655	0.00202543	0.00186498
2035Hauling	Hauling	0.02073814	2.15902979	0.21180268	0.00982305	0.02545043	0.02434945
2035Vendor	Vendor	0.01687791	1.918046009	0.18598446	0.00958033	0.01690446	0.01617037
2035Worker	Worker	0.00411446	0.023202235	0.47027231	0.0021832	0.00086293	0.00079412
	GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day)					
					ROG	NOX	CO	SO2	PM10	PM2.5
<u>Demolition - SC</u>	<u>2020</u>									
Total Haul Trips	16									
Hauling	1	20	10	20	0.01	0.18	0.02	0.00	0.00	0.00
Vendor	0	20	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	15	20	10	10.8	0.01	0.05	0.51	0.00	0.00	0.00
<u>Site Prep - SC</u>	<u>2020</u>									
Total Haul Trips	0									
Hauling	0	5	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	5	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	18	5	10	10.8	0.01	0.06	0.61	0.00	0.00	0.00

Winton

Running Emissions

		Running Emissions Factor (grams/mile)					
		ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling	Hauling	0.13738541	3.97914438	0.53167772	0.0136971	0.07080069	0.06773785
2020Vendor	Vendor	0.23063504	3.981372589	0.86968806	0.01261836	0.09188124	0.08790297
2020Worker	Worker	0.03246709	0.135413512	1.42558666	0.0032239	0.00213525	0.00196631
2021Hauling	Hauling	0.10531685	3.504330027	0.44557578	0.01342546	0.05844684	0.05591843
2021Vendor	Vendor	0.18355599	3.451446779	0.72194662	0.0123914	0.07514109	0.0718873
2021Worker	Worker	0.02794818	0.115577268	1.26808315	0.00313655	0.00202543	0.00186498
2035Hauling	Hauling	0.02073814	2.15902979	0.21180268	0.00982305	0.02545043	0.02434945
2035Vendor	Vendor	0.01687791	1.918046009	0.18598446	0.00958033	0.01690446	0.01617037
2035Worker	Worker	0.00411446	0.023202235	0.47027231	0.0021832	0.00086293	0.00079412
	GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day) ROG	NOX	CO	SO2	PM10	PM2.5
Grading - SC	2020									
Total Haul Trips	0									
Hauling	0	8	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	8	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	20	8	10	10.8	0.02	0.06	0.68	0.00	0.00	0.00
BC - SC	2020									
Total Haul Trips	0									
Hauling	0	227	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	17	227	10	7.3	0.06	1.09	0.24	0.00	0.03	0.02
Worker	39	227	10	10.8	0.03	0.13	1.32	0.00	0.00	0.00

Winton
Running Emissions

	Running Emissions Factor (grams/mile) ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling Hauling	0.13738541	3.97914438	0.53167772	0.0136971	0.07080069	0.06773785
2020Vendor Vendor	0.23063504	3.981372589	0.86968806	0.01261836	0.09188124	0.08790297
2020Worker Worker	0.03246709	0.135413512	1.42558666	0.0032239	0.00213525	0.00196631
2021Hauling Hauling	0.10531685	3.504330027	0.44557578	0.01342546	0.05844684	0.05591843
2021Vendor Vendor	0.18355599	3.451446779	0.72194662	0.0123914	0.07514109	0.0718873
2021Worker Worker	0.02794818	0.115577268	1.26808315	0.00313655	0.00202543	0.00186498
2035Hauling Hauling	0.02073814	2.15902979	0.21180268	0.00982305	0.02545043	0.02434945
2035Vendor Vendor	0.01687791	1.918046009	0.18598446	0.00958033	0.01690446	0.01617037
2035Worker Worker	0.00411446	0.023202235	0.47027231	0.0021832	0.00086293	0.00079412
GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day) ROG	NOX	CO	SO2	PM10	PM2.5
Paving - SC	2020									
Total Haul Trips	0									
Hauling	0	18	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	18	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	20	18	10	10.8	0.02	0.06	0.68	0.00	0.00	0.00
AC - SC	2020									
Total Haul Trips	0									
Hauling	0	18	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	18	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	8	18	10	10.8	0.01	0.03	0.27	0.00	0.00	0.00

Winton
Running Emissions

	Running Emissions Factor (grams/mile) ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling Hauling	0.13738541	3.97914438	0.53167772	0.0136971	0.07080069	0.06773785
2020Vendor Vendor	0.23063504	3.981372589	0.86968806	0.01261836	0.09188124	0.08790297
2020Worker Worker	0.03246709	0.135413512	1.42558666	0.0032239	0.00213525	0.00196631
2021Hauling Hauling	0.10531685	3.504330027	0.44557578	0.01342546	0.05844684	0.05591843
2021Vendor Vendor	0.18355599	3.451446779	0.72194662	0.0123914	0.07514109	0.0718873
2021Worker Worker	0.02794818	0.115577268	1.26808315	0.00313655	0.00202543	0.00186498
2035Hauling Hauling	0.02073814	2.15902979	0.21180268	0.00982305	0.02545043	0.02434945
2035Vendor Vendor	0.01687791	1.918046009	0.18598446	0.00958033	0.01690446	0.01617037
2035Worker Worker	0.00411446	0.023202235	0.47027231	0.0021832	0.00086293	0.00079412
GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day) ROG	NOX	CO	SO2	PM10	PM2.5
Demolition - GO	2020									
Total Haul Trips	2									
Hauling	1	20	10	20	0.01	0.18	0.02	0.00	0.00	0.00
Vendor	0	20	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	13	20	10	10.8	0.01	0.04	0.44	0.00	0.00	0.00
Site Prep - GO	2020									
Total Haul Trips	0									
Hauling	0	3	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	3	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	8	3	10	10.8	0.01	0.03	0.27	0.00	0.00	0.00

Winton
Running Emissions

	Running Emissions Factor (grams/mile)					
	ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling Hauling	0.13738541	3.97914438	0.53167772	0.0136971	0.07080069	0.06773785
2020Vendor Vendor	0.23063504	3.981372589	0.86968806	0.01261836	0.09188124	0.08790297
2020Worker Worker	0.03246709	0.135413512	1.42558666	0.0032239	0.00213525	0.00196631
2021Hauling Hauling	0.10531685	3.504330027	0.44557578	0.01342546	0.05844684	0.05591843
2021Vendor Vendor	0.18355599	3.451446779	0.72194662	0.0123914	0.07514109	0.0718873
2021Worker Worker	0.02794818	0.115577268	1.26808315	0.00313655	0.00202543	0.00186498
2035Hauling Hauling	0.02073814	2.15902979	0.21180268	0.00982305	0.02545043	0.02434945
2035Vendor Vendor	0.01687791	1.918046009	0.18598446	0.00958033	0.01690446	0.01617037
2035Worker Worker	0.00411446	0.023202235	0.47027231	0.0021832	0.00086293	0.00079412
GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day) ROG	NOX	CO	SO2	PM10	PM2.5
Grading - GO	2020									
Total Haul Trips	0									
Hauling	0	6	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	6	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	10	6	10	10.8	0.01	0.03	0.34	0.00	0.00	0.00
BC - GO	2020									
Total Haul Trips	0									
Hauling	0	220	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	10	220	10	7.3	0.04	0.64	0.14	0.00	0.01	0.01
Worker	22	220	10	10.8	0.02	0.07	0.75	0.00	0.00	0.00

Winton
Running Emissions

	Running Emissions Factor (grams/mile)					
	ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling Hauling	0.13738541	3.97914438	0.53167772	0.0136971	0.07080069	0.06773785
2020Vendor Vendor	0.23063504	3.981372589	0.86968806	0.01261836	0.09188124	0.08790297
2020Worker Worker	0.03246709	0.135413512	1.42558666	0.0032239	0.00213525	0.00196631
2021Hauling Hauling	0.10531685	3.504330027	0.44557578	0.01342546	0.05844684	0.05591843
2021Vendor Vendor	0.18355599	3.451446779	0.72194662	0.0123914	0.07514109	0.0718873
2021Worker Worker	0.02794818	0.115577268	1.26808315	0.00313655	0.00202543	0.00186498
2035Hauling Hauling	0.02073814	2.15902979	0.21180268	0.00982305	0.02545043	0.02434945
2035Vendor Vendor	0.01687791	1.918046009	0.18598446	0.00958033	0.01690446	0.01617037
2035Worker Worker	0.00411446	0.023202235	0.47027231	0.0021832	0.00086293	0.00079412
GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day) ROG	NOX	CO	SO2	PM10	PM2.5
Paving - GO	2020									
Total Haul Trips	0									
Hauling	0	10	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	10	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	15	10	10	10.8	0.01	0.05	0.51	0.00	0.00	0.00
AC - GO	2020									
Total Haul Trips	0									
Hauling	0	10	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	10	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	4	10	10	10.8	0.00	0.01	0.14	0.00	0.00	0.00

Winton
Running Emissions

	Running Emissions Factor (grams/mile)					
	ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling Hauling	0.13738541	3.97914438	0.53167772	0.0136971	0.07080069	0.06773785
2020Vendor Vendor	0.23063504	3.981372589	0.86968806	0.01261836	0.09188124	0.08790297
2020Worker Worker	0.03246709	0.135413512	1.42558666	0.0032239	0.00213525	0.00196631
2021Hauling Hauling	0.10531685	3.504330027	0.44557578	0.01342546	0.05844684	0.05591843
2021Vendor Vendor	0.18355599	3.451446779	0.72194662	0.0123914	0.07514109	0.0718873
2021Worker Worker	0.02794818	0.115577268	1.26808315	0.00313655	0.00202543	0.00186498
2035Hauling Hauling	0.02073814	2.15902979	0.21180268	0.00982305	0.02545043	0.02434945
2035Vendor Vendor	0.01687791	1.918046009	0.18598446	0.00958033	0.01690446	0.01617037
2035Worker Worker	0.00411446	0.023202235	0.47027231	0.0021832	0.00086293	0.00079412
GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day)					
					ROG	NOX	CO	SO2	PM10	PM2.5
Demolition - Ind	2020									
Total Haul Trips	2									
Hauling	1	19	10	20	0.01	0.18	0.02	0.00	0.00	0.00
Vendor	0	19	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	15	19	10	10.8	0.01	0.05	0.51	0.00	0.00	0.00
Site Prep - Ind	2020									
Total Haul Trips	0									
Hauling	0	9	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	9	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	18	9	10	10.8	0.01	0.06	0.61	0.00	0.00	0.00

Winton
Running Emissions

	Running Emissions Factor (grams/mile) ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling Hauling	0.13738541	3.97914438	0.53167772	0.0136971	0.07080069	0.06773785
2020Vendor Vendor	0.23063504	3.981372589	0.86968806	0.01261836	0.09188124	0.08790297
2020Worker Worker	0.03246709	0.135413512	1.42558666	0.0032239	0.00213525	0.00196631
2021Hauling Hauling	0.10531685	3.504330027	0.44557578	0.01342546	0.05844684	0.05591843
2021Vendor Vendor	0.18355599	3.451446779	0.72194662	0.0123914	0.07514109	0.0718873
2021Worker Worker	0.02794818	0.115577268	1.26808315	0.00313655	0.00202543	0.00186498
2035Hauling Hauling	0.02073814	2.15902979	0.21180268	0.00982305	0.02545043	0.02434945
2035Vendor Vendor	0.01687791	1.918046009	0.18598446	0.00958033	0.01690446	0.01617037
2035Worker Worker	0.00411446	0.023202235	0.47027231	0.0021832	0.00086293	0.00079412
GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day) ROG	NOX	CO	SO2	PM10	PM2.5
Grading - Ind	2020									
Total Haul Trips	0									
Hauling	0	19	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	19	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	15	19	10	10.8	0.01	0.05	0.51	0.00	0.00	0.00
BC - Ind	2020									
Total Haul Trips	0									
Hauling	0	214	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	28	214	10	7.3	0.10	1.79	0.39	0.01	0.04	0.04
Worker	72	214	10	10.8	0.06	0.23	2.44	0.01	0.00	0.00

Winton
Running Emissions

	Running Emissions Factor (grams/mile)					
	ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling Hauling	0.13738541	3.97914438	0.53167772	0.0136971	0.07080069	0.06773785
2020Vendor Vendor	0.23063504	3.981372589	0.86968806	0.01261836	0.09188124	0.08790297
2020Worker Worker	0.03246709	0.135413512	1.42558666	0.0032239	0.00213525	0.00196631
2021Hauling Hauling	0.10531685	3.504330027	0.44557578	0.01342546	0.05844684	0.05591843
2021Vendor Vendor	0.18355599	3.451446779	0.72194662	0.0123914	0.07514109	0.0718873
2021Worker Worker	0.02794818	0.115577268	1.26808315	0.00313655	0.00202543	0.00186498
2035Hauling Hauling	0.02073814	2.15902979	0.21180268	0.00982305	0.02545043	0.02434945
2035Vendor Vendor	0.01687791	1.918046009	0.18598446	0.00958033	0.01690446	0.01617037
2035Worker Worker	0.00411446	0.023202235	0.47027231	0.0021832	0.00086293	0.00079412
GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day)					
					ROG	NOX	CO	SO2	PM10	PM2.5
Paving - Ind	2020									
Total Haul Trips	0									
Hauling	0	20	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	20	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	15	20	10	10.8	0.01	0.05	0.51	0.00	0.00	0.00
AC - Ind	2020									
Total Haul Trips	0									
Hauling	0	20	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	20	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	14	20	10	10.8	0.01	0.05	0.48	0.00	0.00	0.00

Winton
Running Emissions

		Running Emissions Factor (grams/mile)		
		CO2	CH4	N2O
2020Hauling	Hauling	1450.65157	0.00803163	0.2280563
2020Vendor	Vendor	1331.97596	0.01301268	0.19810614
2020Worker	Worker	325.839156	0.0073794	0.01014687
2021Hauling	Hauling	1421.91676	0.00648536	0.2235386
2021Vendor	Vendor	1308.03319	0.01051117	0.19423668
2021Worker	Worker	317.01459	0.00641729	0.00900563
2035Hauling	Hauling	1040.69009	0.00223353	0.1636136
2035Vendor	Vendor	1010.83215	0.00159362	0.14721391
2035Worker	Worker	220.683611	0.00119283	0.00350058
	GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Demolition - Res	2020							
Total Haul Trips	16							
Hauling	2	14	10	20	0.81	0.00	0.04	0.85
Vendor	0	14	10	7.3	0.00	0.00	0.00	0.00
Worker	15	14	10	10.8	0.74	0.00	0.01	0.75
Site Prep - Res	2020							
Total Haul Trips	0							
Hauling	0	8	10	20	0.00	0.00	0.00	0.00
Vendor	0	8	10	7.3	0.00	0.00	0.00	0.00
Worker	18	8	10	10.8	0.51	0.00	0.00	0.51

Winton

Running Emissions

		Running Emissions Factor (grams/mile)		
		CO2	CH4	N2O
2020Hauling	Hauling	1450.65157	0.00803163	0.2280563
2020Vendor	Vendor	1331.97596	0.01301268	0.19810614
2020Worker	Worker	325.839156	0.0073794	0.01014687
2021Hauling	Hauling	1421.91676	0.00648536	0.2235386
2021Vendor	Vendor	1308.03319	0.01051117	0.19423668
2021Worker	Worker	317.01459	0.00641729	0.00900563
2035Hauling	Hauling	1040.69009	0.00223353	0.1636136
2035Vendor	Vendor	1010.83215	0.00159362	0.14721391
2035Worker	Worker	220.683611	0.00119283	0.00350058
	GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Grading - Res	2020							
Total Haul Trips	0							
Hauling	0	22	10	20	0.00	0.00	0.00	0.00
Vendor	0	22	10	7.3	0.00	0.00	0.00	0.00
Worker	20	22	10	10.8	1.55	0.00	0.01	1.56
Building Construction - Res	2020							
Total Haul Trips	0							
Hauling	0	217	10	20	0.00	0.00	0.00	0.00
Vendor	54	217	10	7.3	113.94	0.03	4.91	118.88
Worker	152	217	10	10.8	116.07	0.07	1.05	117.19

Winton
Running Emissions

		Running Emissions Factor (grams/mile)		
		CO2	CH4	N2O
2020Hauling	Hauling	1450.65157	0.00803163	0.2280563
2020Vendor	Vendor	1331.97596	0.01301268	0.19810614
2020Worker	Worker	325.839156	0.0073794	0.01014687
2021Hauling	Hauling	1421.91676	0.00648536	0.2235386
2021Vendor	Vendor	1308.03319	0.01051117	0.19423668
2021Worker	Worker	317.01459	0.00641729	0.00900563
2035Hauling	Hauling	1040.69009	0.00223353	0.1636136
2035Vendor	Vendor	1010.83215	0.00159362	0.14721391
2035Worker	Worker	220.683611	0.00119283	0.00350058
	GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (MT/year)			
					CO2	CH4	N2O	CO2e
Paving - Res	2020							
Total Haul Trips	0							
Hauling	0	75	10	20	0.00	0.00	0.00	0.00
Vendor	0	75	10	7.3	0.00	0.00	0.00	0.00
Worker	15	75	10	10.8	3.96	0.00	0.04	4.00
AC - Res	2020							
Total Haul Trips	0							
Hauling	0	75	10	20	0.00	0.00	0.00	0.00
Vendor	0	75	10	7.3	0.00	0.00	0.00	0.00
Worker	30	75	10	10.8	7.92	0.00	0.07	7.99

Winton
Running Emissions

		Running Emissions Factor (grams/mile)		
		CO2	CH4	N2O
2020Hauling	Hauling	1450.65157	0.00803163	0.2280563
2020Vendor	Vendor	1331.97596	0.01301268	0.19810614
2020Worker	Worker	325.839156	0.0073794	0.01014687
2021Hauling	Hauling	1421.91676	0.00648536	0.2235386
2021Vendor	Vendor	1308.03319	0.01051117	0.19423668
2021Worker	Worker	317.01459	0.00641729	0.00900563
2035Hauling	Hauling	1040.69009	0.00223353	0.1636136
2035Vendor	Vendor	1010.83215	0.00159362	0.14721391
2035Worker	Worker	220.683611	0.00119283	0.00350058
GWP		1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Demolition - SC	2020							
Total Haul Trips	16							
Hauling	1	20	10	20	0.58	0.00	0.03	0.61
Vendor	0	20	10	7.3	0.00	0.00	0.00	0.00
Worker	15	20	10	10.8	1.06	0.00	0.01	1.07
Site Prep - SC	2020							
Total Haul Trips	0							
Hauling	0	5	10	20	0.00	0.00	0.00	0.00
Vendor	0	5	10	7.3	0.00	0.00	0.00	0.00
Worker	18	5	10	10.8	0.32	0.00	0.00	0.32

Winton
Running Emissions

		Running Emissions Factor (grams/mile)		
		CO2	CH4	N2O
2020Hauling	Hauling	1450.65157	0.00803163	0.2280563
2020Vendor	Vendor	1331.97596	0.01301268	0.19810614
2020Worker	Worker	325.839156	0.0073794	0.01014687
2021Hauling	Hauling	1421.91676	0.00648536	0.2235386
2021Vendor	Vendor	1308.03319	0.01051117	0.19423668
2021Worker	Worker	317.01459	0.00641729	0.00900563
2035Hauling	Hauling	1040.69009	0.00223353	0.1636136
2035Vendor	Vendor	1010.83215	0.00159362	0.14721391
2035Worker	Worker	220.683611	0.00119283	0.00350058
	GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Grading - SC	2020							
Total Haul Trips	0							
Hauling	0	8	10	20	0.00	0.00	0.00	0.00
Vendor	0	8	10	7.3	0.00	0.00	0.00	0.00
Worker	20	8	10	10.8	0.56	0.00	0.01	0.57
BC - SC	2020							
Total Haul Trips	0							
Hauling	0	227	10	20	0.00	0.00	0.00	0.00
Vendor	17	227	10	7.3	37.52	0.01	1.62	39.15
Worker	39	227	10	10.8	31.15	0.02	0.28	31.45

Winton
Running Emissions

		Running Emissions Factor (grams/mile)		
		CO2	CH4	N2O
2020Hauling	Hauling	1450.65157	0.00803163	0.2280563
2020Vendor	Vendor	1331.97596	0.01301268	0.19810614
2020Worker	Worker	325.839156	0.0073794	0.01014687
2021Hauling	Hauling	1421.91676	0.00648536	0.2235386
2021Vendor	Vendor	1308.03319	0.01051117	0.19423668
2021Worker	Worker	317.01459	0.00641729	0.00900563
2035Hauling	Hauling	1040.69009	0.00223353	0.1636136
2035Vendor	Vendor	1010.83215	0.00159362	0.14721391
2035Worker	Worker	220.683611	0.00119283	0.00350058
	GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (MT/year)			
					CO2	CH4	N2O	CO2e
Paving - SC	2020							
Total Haul Trips	0							
Hauling	0	18	10	20	0.00	0.00	0.00	0.00
Vendor	0	18	10	7.3	0.00	0.00	0.00	0.00
Worker	20	18	10	10.8	1.27	0.00	0.01	1.28
AC - SC	2020							
Total Haul Trips	0							
Hauling	0	18	10	20	0.00	0.00	0.00	0.00
Vendor	0	18	10	7.3	0.00	0.00	0.00	0.00
Worker	8	18	10	10.8	0.51	0.00	0.00	0.51

Winton
Running Emissions

		Running Emissions Factor (grams/mile)		
		CO2	CH4	N2O
2020Hauling	Hauling	1450.65157	0.00803163	0.2280563
2020Vendor	Vendor	1331.97596	0.01301268	0.19810614
2020Worker	Worker	325.839156	0.0073794	0.01014687
2021Hauling	Hauling	1421.91676	0.00648536	0.2235386
2021Vendor	Vendor	1308.03319	0.01051117	0.19423668
2021Worker	Worker	317.01459	0.00641729	0.00900563
2035Hauling	Hauling	1040.69009	0.00223353	0.1636136
2035Vendor	Vendor	1010.83215	0.00159362	0.14721391
2035Worker	Worker	220.683611	0.00119283	0.00350058
	GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Demolition - GO	2020							
Total Haul Trips	2							
Hauling	1	20	10	20	0.58	0.00	0.03	0.61
Vendor	0	20	10	7.3	0.00	0.00	0.00	0.00
Worker	13	20	10	10.8	0.91	0.00	0.01	0.92
Site Prep - GO	2020							
Total Haul Trips	0							
Hauling	0	3	10	20	0.00	0.00	0.00	0.00
Vendor	0	3	10	7.3	0.00	0.00	0.00	0.00
Worker	8	3	10	10.8	0.08	0.00	0.00	0.09

Winton
Running Emissions

		Running Emissions Factor (grams/mile)		
		CO2	CH4	N2O
2020Hauling	Hauling	1450.65157	0.00803163	0.2280563
2020Vendor	Vendor	1331.97596	0.01301268	0.19810614
2020Worker	Worker	325.839156	0.0073794	0.01014687
2021Hauling	Hauling	1421.91676	0.00648536	0.2235386
2021Vendor	Vendor	1308.03319	0.01051117	0.19423668
2021Worker	Worker	317.01459	0.00641729	0.00900563
2035Hauling	Hauling	1040.69009	0.00223353	0.1636136
2035Vendor	Vendor	1010.83215	0.00159362	0.14721391
2035Worker	Worker	220.683611	0.00119283	0.00350058
	GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Grading - GO	2020							
Total Haul Trips	0							
Hauling	0	6	10	20	0.00	0.00	0.00	0.00
Vendor	0	6	10	7.3	0.00	0.00	0.00	0.00
Worker	10	6	10	10.8	0.21	0.00	0.00	0.21
BC - GO	2020							
Total Haul Trips	0							
Hauling	0	220	10	20	0.00	0.00	0.00	0.00
Vendor	10	220	10	7.3	21.39	0.01	0.92	22.32
Worker	22	220	10	10.8	17.03	0.01	0.15	17.20

Winton
Running Emissions

		Running Emissions Factor (grams/mile)		
		CO2	CH4	N2O
2020Hauling	Hauling	1450.65157	0.00803163	0.2280563
2020Vendor	Vendor	1331.97596	0.01301268	0.19810614
2020Worker	Worker	325.839156	0.0073794	0.01014687
2021Hauling	Hauling	1421.91676	0.00648536	0.2235386
2021Vendor	Vendor	1308.03319	0.01051117	0.19423668
2021Worker	Worker	317.01459	0.00641729	0.00900563
2035Hauling	Hauling	1040.69009	0.00223353	0.1636136
2035Vendor	Vendor	1010.83215	0.00159362	0.14721391
2035Worker	Worker	220.683611	0.00119283	0.00350058
	GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Paving - GO	2020							
Total Haul Trips	0							
Hauling	0	10	10	20	0.00	0.00	0.00	0.00
Vendor	0	10	10	7.3	0.00	0.00	0.00	0.00
Worker	15	10	10	10.8	0.53	0.00	0.00	0.53
AC - GO	2020							
Total Haul Trips	0							
Hauling	0	10	10	20	0.00	0.00	0.00	0.00
Vendor	0	10	10	7.3	0.00	0.00	0.00	0.00
Worker	4	10	10	10.8	0.14	0.00	0.00	0.14

Winton
Running Emissions

		Running Emissions Factor (grams/mile)		
		CO2	CH4	N2O
2020Hauling	Hauling	1450.65157	0.00803163	0.2280563
2020Vendor	Vendor	1331.97596	0.01301268	0.19810614
2020Worker	Worker	325.839156	0.0073794	0.01014687
2021Hauling	Hauling	1421.91676	0.00648536	0.2235386
2021Vendor	Vendor	1308.03319	0.01051117	0.19423668
2021Worker	Worker	317.01459	0.00641729	0.00900563
2035Hauling	Hauling	1040.69009	0.00223353	0.1636136
2035Vendor	Vendor	1010.83215	0.00159362	0.14721391
2035Worker	Worker	220.683611	0.00119283	0.00350058
	GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Demolition - Ind	2020							
Total Haul Trips	2							
Hauling	1	19	10	20	0.55	0.00	0.03	0.58
Vendor	0	19	10	7.3	0.00	0.00	0.00	0.00
Worker	15	19	10	10.8	1.00	0.00	0.01	1.01
Site Prep - Ind	2020							
Total Haul Trips	0							
Hauling	0	9	10	20	0.00	0.00	0.00	0.00
Vendor	0	9	10	7.3	0.00	0.00	0.00	0.00
Worker	18	9	10	10.8	0.57	0.00	0.01	0.58

Winton
Running Emissions

		Running Emissions Factor (grams/mile)		
		CO2	CH4	N2O
2020Hauling	Hauling	1450.65157	0.00803163	0.2280563
2020Vendor	Vendor	1331.97596	0.01301268	0.19810614
2020Worker	Worker	325.839156	0.0073794	0.01014687
2021Hauling	Hauling	1421.91676	0.00648536	0.2235386
2021Vendor	Vendor	1308.03319	0.01051117	0.19423668
2021Worker	Worker	317.01459	0.00641729	0.00900563
2035Hauling	Hauling	1040.69009	0.00223353	0.1636136
2035Vendor	Vendor	1010.83215	0.00159362	0.14721391
2035Worker	Worker	220.683611	0.00119283	0.00350058
GWP		1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Grading - Ind	2020							
Total Haul Trips	0							
Hauling	0	19	10	20	0.00	0.00	0.00	0.00
Vendor	0	19	10	7.3	0.00	0.00	0.00	0.00
Worker	15	19	10	10.8	1.00	0.00	0.01	1.01
BC - Ind	2020							
Total Haul Trips	0							
Hauling	0	214	10	20	0.00	0.00	0.00	0.00
Vendor	28	214	10	7.3	58.26	0.01	2.51	60.79
Worker	72	214	10	10.8	54.22	0.03	0.49	54.74

Winton
Running Emissions

	Running Emissions Factor (grams/mile) CO2	CH4	N2O
2020Hauling Hauling	1450.65157	0.00803163	0.2280563
2020Vendor Vendor	1331.97596	0.01301268	0.19810614
2020Worker Worker	325.839156	0.0073794	0.01014687
2021Hauling Hauling	1421.91676	0.00648536	0.2235386
2021Vendor Vendor	1308.03319	0.01051117	0.19423668
2021Worker Worker	317.01459	0.00641729	0.00900563
2035Hauling Hauling	1040.69009	0.00223353	0.1636136
2035Vendor Vendor	1010.83215	0.00159362	0.14721391
2035Worker Worker	220.683611	0.00119283	0.00350058
GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Paving - Ind	2020							
Total Haul Trips	0							
Hauling	0	20	10	20	0.00	0.00	0.00	0.00
Vendor	0	20	10	7.3	0.00	0.00	0.00	0.00
Worker	15	20	10	10.8	1.06	0.00	0.01	1.07
AC - Ind	2020							
Total Haul Trips	0							
Hauling	0	20	10	20	0.00	0.00	0.00	0.00
Vendor	0	20	10	7.3	0.00	0.00	0.00	0.00
Worker	14	20	10	10.8	0.99	0.00	0.01	0.99

Winton
Idling Emissions

Winton

Idling Emissions

	Idling Emissions Factor (grams/minute) ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling Hauling	0.2591107	3.220214222	3.19631737	0.00578379	0.00731525	0.0069988
2020Vendor Vendor	0.13384024	1.782365343	1.66997779	0.0030622	0.00431269	0.00412612
2020Worker Worker	0	0	0	0	0	0
2021Hauling Hauling	0.25587593	3.20399715	3.3354067	0.00583083	0.00489954	0.00468759
2021Vendor Vendor	0.13194562	1.760544268	1.739394	0.00308401	0.00299887	0.00286914
2021Worker Worker	0	0	0	0	0	0
2035Hauling Hauling	0.24311618	2.881417752	3.59178433	0.00455548	0.00105108	0.00100561
2035Vendor Vendor	0.12427583	1.52031672	1.87049303	0.00241685	0.00055138	0.00052753
2035Worker Worker	0	0	0	0	0	0
GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (pounds/day) ROG	NOX	CO	SO2	PM10	PM2.5
Demolition - Res	2020									
Total Haul Trips	16									
Hauling	2	14	10	15	0.02	0.21	0.21	0.00	0.00	0.00
Vendor	0	14	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Worker	15	14	10	0	0.00	0.00	0.00	0.00	0.00	0.00
Site Prep - Res	2020									
Total Haul Trips	0									
Hauling	0	8	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	8	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Worker	18	8	10	0	0.00	0.00	0.00	0.00	0.00	0.00

Winton
Idling Emissions

	Idling Emissions Factor (grams/minute)					
	ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling Hauling	0.2591107	3.220214222	3.19631737	0.00578379	0.00731525	0.0069988
2020Vendor Vendor	0.13384024	1.782365343	1.66997779	0.0030622	0.00431269	0.00412612
2020Worker Worker	0	0	0	0	0	0
2021Hauling Hauling	0.25587593	3.20399715	3.3354067	0.00583083	0.00489954	0.00468759
2021Vendor Vendor	0.13194562	1.760544268	1.739394	0.00308401	0.00299887	0.00286914
2021Worker Worker	0	0	0	0	0	0
2035Hauling Hauling	0.24311618	2.881417752	3.59178433	0.00455548	0.00105108	0.00100561
2035Vendor Vendor	0.12427583	1.52031672	1.87049303	0.00241685	0.00055138	0.00052753
2035Worker Worker	0	0	0	0	0	0
GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (pounds/day) ROG	NOX	CO	SO2	PM10	PM2.5
Grading - Res	2020									
Total Haul Trips	0									
Hauling	0	22	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	22	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Worker	20	22	10	0	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction - Res	2020									
Total Haul Trips	0									
Hauling	0	217	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	54	217	10	15	0.24	3.18	2.98	0.01	0.01	0.01
Worker	152	217	10	0	0.00	0.00	0.00	0.00	0.00	0.00

Winton
Idling Emissions

	Idling Emissions Factor (grams/minute)					
	ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling Hauling	0.2591107	3.220214222	3.19631737	0.00578379	0.00731525	0.0069988
2020Vendor Vendor	0.13384024	1.782365343	1.66997779	0.0030622	0.00431269	0.00412612
2020Worker Worker	0	0	0	0	0	0
2021Hauling Hauling	0.25587593	3.20399715	3.3354067	0.00583083	0.00489954	0.00468759
2021Vendor Vendor	0.13194562	1.760544268	1.739394	0.00308401	0.00299887	0.00286914
2021Worker Worker	0	0	0	0	0	0
2035Hauling Hauling	0.24311618	2.881417752	3.59178433	0.00455548	0.00105108	0.00100561
2035Vendor Vendor	0.12427583	1.52031672	1.87049303	0.00241685	0.00055138	0.00052753
2035Worker Worker	0	0	0	0	0	0
GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (pounds/day)					
					ROG	NOX	CO	SO2	PM10	PM2.5
Paving - Res	2020									
Total Haul Trips	0									
Hauling	0	75	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	75	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Worker	15	75	10	0	0.00	0.00	0.00	0.00	0.00	0.00
AC - Res	2020									
Total Haul Trips	0									
Hauling	0	75	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	75	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Worker	30	75	10	0	0.00	0.00	0.00	0.00	0.00	0.00

Winton

Idling Emissions

	Idling Emissions Factor (grams/minute)					
	ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling Hauling	0.2591107	3.220214222	3.19631737	0.00578379	0.00731525	0.0069988
2020Vendor Vendor	0.13384024	1.782365343	1.66997779	0.0030622	0.00431269	0.00412612
2020Worker Worker	0	0	0	0	0	0
2021Hauling Hauling	0.25587593	3.20399715	3.3354067	0.00583083	0.00489954	0.00468759
2021Vendor Vendor	0.13194562	1.760544268	1.739394	0.00308401	0.00299887	0.00286914
2021Worker Worker	0	0	0	0	0	0
2035Hauling Hauling	0.24311618	2.881417752	3.59178433	0.00455548	0.00105108	0.00100561
2035Vendor Vendor	0.12427583	1.52031672	1.87049303	0.00241685	0.00055138	0.00052753
2035Worker Worker	0	0	0	0	0	0
GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (pounds/day) ROG	NOX	CO	SO2	PM10	PM2.5
Demolition - SC	2020									
Total Haul Trips	16									
Hauling	1	20	10	15	0.01	0.11	0.11	0.00	0.00	0.00
Vendor	0	20	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Worker	15	20	10	0	0.00	0.00	0.00	0.00	0.00	0.00
Site Prep - SC	2020									
Total Haul Trips	0									
Hauling	0	5	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	5	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Worker	18	5	10	0	0.00	0.00	0.00	0.00	0.00	0.00

Winton
Idling Emissions

	Idling Emissions Factor (grams/minute)					
	ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling Hauling	0.2591107	3.220214222	3.19631737	0.00578379	0.00731525	0.0069988
2020Vendor Vendor	0.13384024	1.782365343	1.66997779	0.0030622	0.00431269	0.00412612
2020Worker Worker	0	0	0	0	0	0
2021Hauling Hauling	0.25587593	3.20399715	3.3354067	0.00583083	0.00489954	0.00468759
2021Vendor Vendor	0.13194562	1.760544268	1.739394	0.00308401	0.00299887	0.00286914
2021Worker Worker	0	0	0	0	0	0
2035Hauling Hauling	0.24311618	2.881417752	3.59178433	0.00455548	0.00105108	0.00100561
2035Vendor Vendor	0.12427583	1.52031672	1.87049303	0.00241685	0.00055138	0.00052753
2035Worker Worker	0	0	0	0	0	0
GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (pounds/day) ROG	NOX	CO	SO2	PM10	PM2.5
Grading - SC	2020									
Total Haul Trips	0									
Hauling	0	8	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	8	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Worker	20	8	10	0	0.00	0.00	0.00	0.00	0.00	0.00
BC - SC	2020									
Total Haul Trips	0									
Hauling	0	227	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	17	227	10	15	0.08	1.00	0.94	0.00	0.00	0.00
Worker	39	227	10	0	0.00	0.00	0.00	0.00	0.00	0.00

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Idling Emissions

	Idling Emissions Factor (grams/minute)					
	ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling Hauling	0.2591107	3.220214222	3.19631737	0.00578379	0.00731525	0.0069988
2020Vendor Vendor	0.13384024	1.782365343	1.66997779	0.0030622	0.00431269	0.00412612
2020Worker Worker	0	0	0	0	0	0
2021Hauling Hauling	0.25587593	3.20399715	3.3354067	0.00583083	0.00489954	0.00468759
2021Vendor Vendor	0.13194562	1.760544268	1.739394	0.00308401	0.00299887	0.00286914
2021Worker Worker	0	0	0	0	0	0
2035Hauling Hauling	0.24311618	2.881417752	3.59178433	0.00455548	0.00105108	0.00100561
2035Vendor Vendor	0.12427583	1.52031672	1.87049303	0.00241685	0.00055138	0.00052753
2035Worker Worker	0	0	0	0	0	0
GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (pounds/day) ROG	NOX	CO	SO2	PM10	PM2.5
Paving - SC	2020									
Total Haul Trips	0									
Hauling	0	18	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	18	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Worker	20	18	10	0	0.00	0.00	0.00	0.00	0.00	0.00
AC - SC	2020									
Total Haul Trips	0									
Hauling	0	18	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	18	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Worker	8	18	10	0	0.00	0.00	0.00	0.00	0.00	0.00

Winton
Idling Emissions

	Idling Emissions Factor (grams/minute)					
	ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling Hauling	0.2591107	3.220214222	3.19631737	0.00578379	0.00731525	0.0069988
2020Vendor Vendor	0.13384024	1.782365343	1.66997779	0.0030622	0.00431269	0.00412612
2020Worker Worker	0	0	0	0	0	0
2021Hauling Hauling	0.25587593	3.20399715	3.3354067	0.00583083	0.00489954	0.00468759
2021Vendor Vendor	0.13194562	1.760544268	1.739394	0.00308401	0.00299887	0.00286914
2021Worker Worker	0	0	0	0	0	0
2035Hauling Hauling	0.24311618	2.881417752	3.59178433	0.00455548	0.00105108	0.00100561
2035Vendor Vendor	0.12427583	1.52031672	1.87049303	0.00241685	0.00055138	0.00052753
2035Worker Worker	0	0	0	0	0	0
GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (pounds/day) ROG	NOX	CO	SO2	PM10	PM2.5
Demolition - GO	2020									
Total Haul Trips	2									
Hauling	1	20	10	15	0.01	0.11	0.11	0.00	0.00	0.00
Vendor	0	20	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Worker	13	20	10	0	0.00	0.00	0.00	0.00	0.00	0.00
Site Prep - GO	2020									
Total Haul Trips	0									
Hauling	0	3	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	3	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Worker	8	3	10	0	0.00	0.00	0.00	0.00	0.00	0.00

Winton

Idling Emissions

	Idling Emissions Factor (grams/minute)					
	ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling Hauling	0.2591107	3.220214222	3.19631737	0.00578379	0.00731525	0.0069988
2020Vendor Vendor	0.13384024	1.782365343	1.66997779	0.0030622	0.00431269	0.00412612
2020Worker Worker	0	0	0	0	0	0
2021Hauling Hauling	0.25587593	3.20399715	3.3354067	0.00583083	0.00489954	0.00468759
2021Vendor Vendor	0.13194562	1.760544268	1.739394	0.00308401	0.00299887	0.00286914
2021Worker Worker	0	0	0	0	0	0
2035Hauling Hauling	0.24311618	2.881417752	3.59178433	0.00455548	0.00105108	0.00100561
2035Vendor Vendor	0.12427583	1.52031672	1.87049303	0.00241685	0.00055138	0.00052753
2035Worker Worker	0	0	0	0	0	0
GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (pounds/day)					
					ROG	NOX	CO	SO2	PM10	PM2.5
Grading - GO	2020									
Total Haul Trips	0									
Hauling	0	6	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	6	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Worker	10	6	10	0	0.00	0.00	0.00	0.00	0.00	0.00
BC - GO	2020									
Total Haul Trips	0									
Hauling	0	220	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	10	220	10	15	0.04	0.59	0.55	0.00	0.00	0.00
Worker	22	220	10	0	0.00	0.00	0.00	0.00	0.00	0.00

Winton
Idling Emissions

	Idling Emissions Factor (grams/minute)					
	ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling Hauling	0.2591107	3.220214222	3.19631737	0.00578379	0.00731525	0.0069988
2020Vendor Vendor	0.13384024	1.782365343	1.66997779	0.0030622	0.00431269	0.00412612
2020Worker Worker	0	0	0	0	0	0
2021Hauling Hauling	0.25587593	3.20399715	3.3354067	0.00583083	0.00489954	0.00468759
2021Vendor Vendor	0.13194562	1.760544268	1.739394	0.00308401	0.00299887	0.00286914
2021Worker Worker	0	0	0	0	0	0
2035Hauling Hauling	0.24311618	2.881417752	3.59178433	0.00455548	0.00105108	0.00100561
2035Vendor Vendor	0.12427583	1.52031672	1.87049303	0.00241685	0.00055138	0.00052753
2035Worker Worker	0	0	0	0	0	0
GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (pounds/day) ROG	NOX	CO	SO2	PM10	PM2.5
Paving - GO	2020									
Total Haul Trips	0									
Hauling	0	10	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	10	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Worker	15	10	10	0	0.00	0.00	0.00	0.00	0.00	0.00
AC - GO	2020									
Total Haul Trips	0									
Hauling	0	10	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	10	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Worker	4	10	10	0	0.00	0.00	0.00	0.00	0.00	0.00

Winton
Idling Emissions

	Idling Emissions Factor (grams/minute)					
	ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling Hauling	0.2591107	3.220214222	3.19631737	0.00578379	0.00731525	0.0069988
2020Vendor Vendor	0.13384024	1.782365343	1.66997779	0.0030622	0.00431269	0.00412612
2020Worker Worker	0	0	0	0	0	0
2021Hauling Hauling	0.25587593	3.20399715	3.3354067	0.00583083	0.00489954	0.00468759
2021Vendor Vendor	0.13194562	1.760544268	1.739394	0.00308401	0.00299887	0.00286914
2021Worker Worker	0	0	0	0	0	0
2035Hauling Hauling	0.24311618	2.881417752	3.59178433	0.00455548	0.00105108	0.00100561
2035Vendor Vendor	0.12427583	1.52031672	1.87049303	0.00241685	0.00055138	0.00052753
2035Worker Worker	0	0	0	0	0	0
GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (pounds/day) ROG	NOX	CO	SO2	PM10	PM2.5
Demolition - Ind	2020									
Total Haul Trips	2									
Hauling	1	19	10	15	0.01	0.11	0.11	0.00	0.00	0.00
Vendor	0	19	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Worker	15	19	10	0	0.00	0.00	0.00	0.00	0.00	0.00
Site Prep - Ind	2020									
Total Haul Trips	0									
Hauling	0	9	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	9	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Worker	18	9	10	0	0.00	0.00	0.00	0.00	0.00	0.00

Winton
Idling Emissions

	Idling Emissions Factor (grams/minute)					
	ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling Hauling	0.2591107	3.220214222	3.19631737	0.00578379	0.00731525	0.0069988
2020Vendor Vendor	0.13384024	1.782365343	1.66997779	0.0030622	0.00431269	0.00412612
2020Worker Worker	0	0	0	0	0	0
2021Hauling Hauling	0.25587593	3.20399715	3.3354067	0.00583083	0.00489954	0.00468759
2021Vendor Vendor	0.13194562	1.760544268	1.739394	0.00308401	0.00299887	0.00286914
2021Worker Worker	0	0	0	0	0	0
2035Hauling Hauling	0.24311618	2.881417752	3.59178433	0.00455548	0.00105108	0.00100561
2035Vendor Vendor	0.12427583	1.52031672	1.87049303	0.00241685	0.00055138	0.00052753
2035Worker Worker	0	0	0	0	0	0
GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (pounds/day)					
					ROG	NOX	CO	SO2	PM10	PM2.5
Grading - Ind	2020									
Total Haul Trips	0									
Hauling	0	19	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	19	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Worker	15	19	10	0	0.00	0.00	0.00	0.00	0.00	0.00
BC - Ind	2020									
Total Haul Trips	0									
Hauling	0	214	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	28	214	10	15	0.12	1.65	1.55	0.00	0.00	0.00
Worker	72	214	10	0	0.00	0.00	0.00	0.00	0.00	0.00

Winton
Idling Emissions

	Idling Emissions Factor (grams/minute)					
	ROG	NOX	CO	SO2	PM10	PM2.5
2020Hauling Hauling	0.2591107	3.220214222	3.19631737	0.00578379	0.00731525	0.0069988
2020Vendor Vendor	0.13384024	1.782365343	1.66997779	0.0030622	0.00431269	0.00412612
2020Worker Worker	0	0	0	0	0	0
2021Hauling Hauling	0.25587593	3.20399715	3.3354067	0.00583083	0.00489954	0.00468759
2021Vendor Vendor	0.13194562	1.760544268	1.739394	0.00308401	0.00299887	0.00286914
2021Worker Worker	0	0	0	0	0	0
2035Hauling Hauling	0.24311618	2.881417752	3.59178433	0.00455548	0.00105108	0.00100561
2035Vendor Vendor	0.12427583	1.52031672	1.87049303	0.00241685	0.00055138	0.00052753
2035Worker Worker	0	0	0	0	0	0
GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (pounds/day) ROG	NOX	CO	SO2	PM10	PM2.5
Paving - Ind	2020									
Total Haul Trips	0									
Hauling	0	20	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	20	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Worker	15	20	10	0	0.00	0.00	0.00	0.00	0.00	0.00
AC - Ind	2020									
Total Haul Trips	0									
Hauling	0	20	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	20	10	15	0.00	0.00	0.00	0.00	0.00	0.00
Worker	14	20	10	0	0.00	0.00	0.00	0.00	0.00	0.00

Winton
Idling Emissions

	Idling Emissions Factor (grams/minute) CO2	CH4	N2O
2020Hauling Hauling	612.365091	0.01210746	0.09626283
2020Vendor Vendor	324.165666	0.00658223	0.05082411
2020Worker Worker	0	0	0
2021Hauling Hauling	617.344398	0.01195523	0.09704553
2021Vendor Vendor	326.476655	0.00649161	0.05119453
2021Worker Worker	0	0	0
2035Hauling Hauling	482.35707	0.01135669	0.07582766
2035Vendor Vendor	255.872643	0.00614849	0.04013589
2035Worker Worker	0	0	0
GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Demolition - Res	2020							
Total Haul Trips	16							
Hauling	2	14	10	15	0.26	0.00	0.01	0.27
Vendor	0	14	10	15	0.00	0.00	0.00	0.00
Worker	15	14	10	0	0.00	0.00	0.00	0.00
Site Prep - Res	2020							
Total Haul Trips	0							
Hauling	0	8	10	15	0.00	0.00	0.00	0.00
Vendor	0	8	10	15	0.00	0.00	0.00	0.00
Worker	18	8	10	0	0.00	0.00	0.00	0.00

Winton
Idling Emissions

	Idling Emissions Factor (grams/minute)		
	CO2	CH4	N2O
2020Hauling Hauling	612.365091	0.01210746	0.09626283
2020Vendor Vendor	324.165666	0.00658223	0.05082411
2020Worker Worker	0	0	0
2021Hauling Hauling	617.344398	0.01195523	0.09704553
2021Vendor Vendor	326.476655	0.00649161	0.05119453
2021Worker Worker	0	0	0
2035Hauling Hauling	482.35707	0.01135669	0.07582766
2035Vendor Vendor	255.872643	0.00614849	0.04013589
2035Worker Worker	0	0	0
GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Grading - Res	2020							
Total Haul Trips	0							
Hauling	0	22	10	15	0.00	0.00	0.00	0.00
Vendor	0	22	10	15	0.00	0.00	0.00	0.00
Worker	20	22	10	0	0.00	0.00	0.00	0.00
Building Construction - Res	2020							
Total Haul Trips	0							
Hauling	0	217	10	15	0.00	0.00	0.00	0.00
Vendor	54	217	10	15	56.98	0.03	2.59	59.60
Worker	152	217	10	0	0.00	0.00	0.00	0.00

Winton
Idling Emissions

	Idling Emissions Factor (grams/minute) CO2	CH4	N2O
2020Hauling Hauling	612.365091	0.01210746	0.09626283
2020Vendor Vendor	324.165666	0.00658223	0.05082411
2020Worker Worker	0	0	0
2021Hauling Hauling	617.344398	0.01195523	0.09704553
2021Vendor Vendor	326.476655	0.00649161	0.05119453
2021Worker Worker	0	0	0
2035Hauling Hauling	482.35707	0.01135669	0.07582766
2035Vendor Vendor	255.872643	0.00614849	0.04013589
2035Worker Worker	0	0	0
GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Paving - Res	2020							
Total Haul Trips	0							
Hauling	0	75	10	15	0.00	0.00	0.00	0.00
Vendor	0	75	10	15	0.00	0.00	0.00	0.00
Worker	15	75	10	0	0.00	0.00	0.00	0.00
AC - Res	2020							
Total Haul Trips	0							
Hauling	0	75	10	15	0.00	0.00	0.00	0.00
Vendor	0	75	10	15	0.00	0.00	0.00	0.00
Worker	30	75	10	0	0.00	0.00	0.00	0.00

Winton
Idling Emissions

	Idling Emissions Factor (grams/minute)		
	CO2	CH4	N2O
2020Hauling Hauling	612.365091	0.01210746	0.09626283
2020Vendor Vendor	324.165666	0.00658223	0.05082411
2020Worker Worker	0	0	0
2021Hauling Hauling	617.344398	0.01195523	0.09704553
2021Vendor Vendor	326.476655	0.00649161	0.05119453
2021Worker Worker	0	0	0
2035Hauling Hauling	482.35707	0.01135669	0.07582766
2035Vendor Vendor	255.872643	0.00614849	0.04013589
2035Worker Worker	0	0	0
GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Demolition - SC	2020							
Total Haul Trips	16							
Hauling	1	20	10	15	0.18	0.00	0.01	0.19
Vendor	0	20	10	15	0.00	0.00	0.00	0.00
Worker	15	20	10	0	0.00	0.00	0.00	0.00
Site Prep - SC	2020							
Total Haul Trips	0							
Hauling	0	5	10	15	0.00	0.00	0.00	0.00
Vendor	0	5	10	15	0.00	0.00	0.00	0.00
Worker	18	5	10	0	0.00	0.00	0.00	0.00

Winton
Idling Emissions

	Idling Emissions Factor (grams/minute) CO2	CH4	N2O
2020Hauling Hauling	612.365091	0.01210746	0.09626283
2020Vendor Vendor	324.165666	0.00658223	0.05082411
2020Worker Worker	0	0	0
2021Hauling Hauling	617.344398	0.01195523	0.09704553
2021Vendor Vendor	326.476655	0.00649161	0.05119453
2021Worker Worker	0	0	0
2035Hauling Hauling	482.35707	0.01135669	0.07582766
2035Vendor Vendor	255.872643	0.00614849	0.04013589
2035Worker Worker	0	0	0
GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Grading - SC	2020							
Total Haul Trips	0							
Hauling	0	8	10	15	0.00	0.00	0.00	0.00
Vendor	0	8	10	15	0.00	0.00	0.00	0.00
Worker	20	8	10	0	0.00	0.00	0.00	0.00
BC - SC	2020							
Total Haul Trips	0							
Hauling	0	227	10	15	0.00	0.00	0.00	0.00
Vendor	17	227	10	15	18.76	0.01	0.85	19.63
Worker	39	227	10	0	0.00	0.00	0.00	0.00

Winton
Idling Emissions

	Idling Emissions Factor (grams/minute) CO2	CH4	N2O
2020Hauling Hauling	612.365091	0.01210746	0.09626283
2020Vendor Vendor	324.165666	0.00658223	0.05082411
2020Worker Worker	0	0	0
2021Hauling Hauling	617.344398	0.01195523	0.09704553
2021Vendor Vendor	326.476655	0.00649161	0.05119453
2021Worker Worker	0	0	0
2035Hauling Hauling	482.35707	0.01135669	0.07582766
2035Vendor Vendor	255.872643	0.00614849	0.04013589
2035Worker Worker	0	0	0
GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Paving - SC	2020							
Total Haul Trips	0							
Hauling	0	18	10	15	0.00	0.00	0.00	0.00
Vendor	0	18	10	15	0.00	0.00	0.00	0.00
Worker	20	18	10	0	0.00	0.00	0.00	0.00
AC - SC	2020							
Total Haul Trips	0							
Hauling	0	18	10	15	0.00	0.00	0.00	0.00
Vendor	0	18	10	15	0.00	0.00	0.00	0.00
Worker	8	18	10	0	0.00	0.00	0.00	0.00

Winton

Idling Emissions

	Idling Emissions Factor (grams/minute) CO2	CH4	N2O
2020Hauling Hauling	612.365091	0.01210746	0.09626283
2020Vendor Vendor	324.165666	0.00658223	0.05082411
2020Worker Worker	0	0	0
2021Hauling Hauling	617.344398	0.01195523	0.09704553
2021Vendor Vendor	326.476655	0.00649161	0.05119453
2021Worker Worker	0	0	0
2035Hauling Hauling	482.35707	0.01135669	0.07582766
2035Vendor Vendor	255.872643	0.00614849	0.04013589
2035Worker Worker	0	0	0
GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Demolition - GO	2020							
Total Haul Trips	2							
Hauling	1	20	10	15	0.18	0.00	0.01	0.19
Vendor	0	20	10	15	0.00	0.00	0.00	0.00
Worker	13	20	10	0	0.00	0.00	0.00	0.00
Site Prep - GO	2020							
Total Haul Trips	0							
Hauling	0	3	10	15	0.00	0.00	0.00	0.00
Vendor	0	3	10	15	0.00	0.00	0.00	0.00
Worker	8	3	10	0	0.00	0.00	0.00	0.00

Winton
Idling Emissions

	Idling Emissions Factor (grams/minute) CO2	CH4	N2O
2020Hauling Hauling	612.365091	0.01210746	0.09626283
2020Vendor Vendor	324.165666	0.00658223	0.05082411
2020Worker Worker	0	0	0
2021Hauling Hauling	617.344398	0.01195523	0.09704553
2021Vendor Vendor	326.476655	0.00649161	0.05119453
2021Worker Worker	0	0	0
2035Hauling Hauling	482.35707	0.01135669	0.07582766
2035Vendor Vendor	255.872643	0.00614849	0.04013589
2035Worker Worker	0	0	0
GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Grading - GO	2020							
Total Haul Trips	0							
Hauling	0	6	10	15	0.00	0.00	0.00	0.00
Vendor	0	6	10	15	0.00	0.00	0.00	0.00
Worker	10	6	10	0	0.00	0.00	0.00	0.00
BC - GO	2020							
Total Haul Trips	0							
Hauling	0	220	10	15	0.00	0.00	0.00	0.00
Vendor	10	220	10	15	10.70	0.01	0.49	11.19
Worker	22	220	10	0	0.00	0.00	0.00	0.00

Winton

Idling Emissions

	Idling Emissions Factor (grams/minute) CO2	CH4	N2O
2020Hauling Hauling	612.365091	0.01210746	0.09626283
2020Vendor Vendor	324.165666	0.00658223	0.05082411
2020Worker Worker	0	0	0
2021Hauling Hauling	617.344398	0.01195523	0.09704553
2021Vendor Vendor	326.476655	0.00649161	0.05119453
2021Worker Worker	0	0	0
2035Hauling Hauling	482.35707	0.01135669	0.07582766
2035Vendor Vendor	255.872643	0.00614849	0.04013589
2035Worker Worker	0	0	0
GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Paving - GO	2020							
Total Haul Trips	0							
Hauling	0	10	10	15	0.00	0.00	0.00	0.00
Vendor	0	10	10	15	0.00	0.00	0.00	0.00
Worker	15	10	10	0	0.00	0.00	0.00	0.00
AC - GO	2020							
Total Haul Trips	0							
Hauling	0	10	10	15	0.00	0.00	0.00	0.00
Vendor	0	10	10	15	0.00	0.00	0.00	0.00
Worker	4	10	10	0	0.00	0.00	0.00	0.00

Winton
Idling Emissions

	Idling Emissions Factor (grams/minute)		
	CO2	CH4	N2O
2020Hauling Hauling	612.365091	0.01210746	0.09626283
2020Vendor Vendor	324.165666	0.00658223	0.05082411
2020Worker Worker	0	0	0
2021Hauling Hauling	617.344398	0.01195523	0.09704553
2021Vendor Vendor	326.476655	0.00649161	0.05119453
2021Worker Worker	0	0	0
2035Hauling Hauling	482.35707	0.01135669	0.07582766
2035Vendor Vendor	255.872643	0.00614849	0.04013589
2035Worker Worker	0	0	0
GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Demolition - Ind	2020							
Total Haul Trips	2							
Hauling	1	19	10	15	0.17	0.00	0.01	0.18
Vendor	0	19	10	15	0.00	0.00	0.00	0.00
Worker	15	19	10	0	0.00	0.00	0.00	0.00
Site Prep - Ind	2020							
Total Haul Trips	0							
Hauling	0	9	10	15	0.00	0.00	0.00	0.00
Vendor	0	9	10	15	0.00	0.00	0.00	0.00
Worker	18	9	10	0	0.00	0.00	0.00	0.00

Winton
Idling Emissions

	Idling Emissions Factor (grams/minute) CO2	CH4	N2O
2020Hauling Hauling	612.365091	0.01210746	0.09626283
2020Vendor Vendor	324.165666	0.00658223	0.05082411
2020Worker Worker	0	0	0
2021Hauling Hauling	617.344398	0.01195523	0.09704553
2021Vendor Vendor	326.476655	0.00649161	0.05119453
2021Worker Worker	0	0	0
2035Hauling Hauling	482.35707	0.01135669	0.07582766
2035Vendor Vendor	255.872643	0.00614849	0.04013589
2035Worker Worker	0	0	0
GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Grading - Ind	2020							
Total Haul Trips	0							
Hauling	0	19	10	15	0.00	0.00	0.00	0.00
Vendor	0	19	10	15	0.00	0.00	0.00	0.00
Worker	15	19	10	0	0.00	0.00	0.00	0.00
BC - Ind	2020							
Total Haul Trips	0							
Hauling	0	214	10	15	0.00	0.00	0.00	0.00
Vendor	28	214	10	15	29.14	0.01	1.32	30.48
Worker	72	214	10	0	0.00	0.00	0.00	0.00

Winton
Idling Emissions

	Idling Emissions Factor (grams/minute) CO2	CH4	N2O
2020Hauling Hauling	612.365091	0.01210746	0.09626283
2020Vendor Vendor	324.165666	0.00658223	0.05082411
2020Worker Worker	0	0	0
2021Hauling Hauling	617.344398	0.01195523	0.09704553
2021Vendor Vendor	326.476655	0.00649161	0.05119453
2021Worker Worker	0	0	0
2035Hauling Hauling	482.35707	0.01135669	0.07582766
2035Vendor Vendor	255.872643	0.00614849	0.04013589
2035Worker Worker	0	0	0
GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (MT/year) CO2	CH4	N2O	CO2e
Paving - Ind	2020							
Total Haul Trips	0							
Hauling	0	20	10	15	0.00	0.00	0.00	0.00
Vendor	0	20	10	15	0.00	0.00	0.00	0.00
Worker	15	20	10	0	0.00	0.00	0.00	0.00
AC - Ind	2020							
Total Haul Trips	0							
Hauling	0	20	10	15	0.00	0.00	0.00	0.00
Vendor	0	20	10	15	0.00	0.00	0.00	0.00
Worker	14	20	10	0	0.00	0.00	0.00	0.00

Winton

Road Dust, Break Wear, and Tire wear Emissions

Winton
Road Dust, Break Wear, and Tire wear Emissions

	Emission Factors (grams/mile)					
	PM10			PM2.5		
	RD	BW	TW	RD	BW	TW
2020Hauling Hauling	3.00E-01	0.061590812	0.03591141	7.36E-02	0.02639606	0.00897785
2020Vendor Vendor	3.00E-01	0.095965425	0.02395571	7.36E-02	0.04112804	0.00598893
2020Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2021Hauling Hauling	3.00E-01	0.061593183	0.03591286	7.36E-02	0.02639708	0.00897822
2021Vendor Vendor	3.00E-01	0.09596661	0.02395643	7.36E-02	0.04112855	0.00598911
2021Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2035Hauling Hauling	3.00E-01	0.061620896	0.03592884	7.36E-02	0.02640896	0.00898221
2035Vendor Vendor	3.00E-01	0.095980467	0.02396442	7.36E-02	0.04113449	0.0059911
2035Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day)					
					PM10			PM2.5		
					RD	BW	TW	RD	BW	TW
<u>Demolition - Res</u>	2020									
Total Haul Trips	16									
Hauling	2	14	10	20	0.03	0.01	0.00	0.01	0.00	0.00
Vendor	0	14	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	15	14	10	10.8	0.11	0.01	0.00	0.03	0.01	0.00
<u>Site Prep - Res</u>	2020									
Total Haul Trips	0									
Hauling	0	8	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	8	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	18	8	10	10.8	0.13	0.02	0.00	0.03	0.01	0.00

Winton
Road Dust, Break Wear, and Tire wear Emissions

	Emission Factors (grams/mile)					
	PM10			PM2.5		
	RD	BW	TW	RD	BW	TW
2020Hauling Hauling	3.00E-01	0.061590812	0.03591141	7.36E-02	0.02639606	0.00897785
2020Vendor Vendor	3.00E-01	0.095965425	0.02395571	7.36E-02	0.04112804	0.00598893
2020Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2021Hauling Hauling	3.00E-01	0.061593183	0.03591286	7.36E-02	0.02639708	0.00897822
2021Vendor Vendor	3.00E-01	0.09596661	0.02395643	7.36E-02	0.04112855	0.00598911
2021Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2035Hauling Hauling	3.00E-01	0.061620896	0.03592884	7.36E-02	0.02640896	0.00898221
2035Vendor Vendor	3.00E-01	0.095980467	0.02396442	7.36E-02	0.04113449	0.0059911
2035Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day) PM10 RD	BW	TW	PM2.5 RD	BW	TW
Grading - Res	2020									
Total Haul Trips	0									
Hauling	0	22	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	22	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	20	22	10	10.8	0.14	0.02	0.00	0.04	0.01	0.00
Building Construction - Res	2020									
Total Haul Trips	0									
Hauling	0	217	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	54	217	10	7.3	0.26	0.08	0.02	0.06	0.04	0.01
Worker	152	217	10	10.8	1.09	0.13	0.03	0.27	0.06	0.01

Winton
Road Dust, Break Wear, and Tire wear Emissions

	Emission Factors (grams/mile)					
	PM10			PM2.5		
	RD	BW	TW	RD	BW	TW
2020Hauling Hauling	3.00E-01	0.061590812	0.03591141	7.36E-02	0.02639606	0.00897785
2020Vendor Vendor	3.00E-01	0.095965425	0.02395571	7.36E-02	0.04112804	0.00598893
2020Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2021Hauling Hauling	3.00E-01	0.061593183	0.03591286	7.36E-02	0.02639708	0.00897822
2021Vendor Vendor	3.00E-01	0.09596661	0.02395643	7.36E-02	0.04112855	0.00598911
2021Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2035Hauling Hauling	3.00E-01	0.061620896	0.03592884	7.36E-02	0.02640896	0.00898221
2035Vendor Vendor	3.00E-01	0.095980467	0.02396442	7.36E-02	0.04113449	0.0059911
2035Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day)					
					PM10			PM2.5		
					RD	BW	TW	RD	BW	TW
Paving - Res	2020									
Total Haul Trips	0									
Hauling	0	75	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	75	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	15	75	10	10.8	0.11	0.01	0.00	0.03	0.01	0.00
AC - Res	2020									
Total Haul Trips	0									
Hauling	0	75	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	75	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	30	75	10	10.8	0.21	0.03	0.01	0.05	0.01	0.00

Winton

Road Dust, Break Wear, and Tire wear Emissions

	Emission Factors (grams/mile)					
	PM10			PM2.5		
	RD	BW	TW	RD	BW	TW
2020Hauling Hauling	3.00E-01	0.061590812	0.03591141	7.36E-02	0.02639606	0.00897785
2020Vendor Vendor	3.00E-01	0.095965425	0.02395571	7.36E-02	0.04112804	0.00598893
2020Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2021Hauling Hauling	3.00E-01	0.061593183	0.03591286	7.36E-02	0.02639708	0.00897822
2021Vendor Vendor	3.00E-01	0.09596661	0.02395643	7.36E-02	0.04112855	0.00598911
2021Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2035Hauling Hauling	3.00E-01	0.061620896	0.03592884	7.36E-02	0.02640896	0.00898221
2035Vendor Vendor	3.00E-01	0.095980467	0.02396442	7.36E-02	0.04113449	0.0059911
2035Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day)					
					PM10			PM2.5		
					RD	BW	TW	RD	BW	TW
<u>Demolition - SC</u>	2020									
Total Haul Trips	16									
Hauling	1	20	10	20	0.01	0.00	0.00	0.00	0.00	0.00
Vendor	0	20	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	15	20	10	10.8	0.11	0.01	0.00	0.03	0.01	0.00
<u>Site Prep - SC</u>	2020									
Total Haul Trips	0									
Hauling	0	5	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	5	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	18	5	10	10.8	0.13	0.02	0.00	0.03	0.01	0.00

Winton

Road Dust, Break Wear, and Tire wear Emissions

	Emission Factors (grams/mile)					
	PM10			PM2.5		
	RD	BW	TW	RD	BW	TW
2020Hauling Hauling	3.00E-01	0.061590812	0.03591141	7.36E-02	0.02639606	0.00897785
2020Vendor Vendor	3.00E-01	0.095965425	0.02395571	7.36E-02	0.04112804	0.00598893
2020Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2021Hauling Hauling	3.00E-01	0.061593183	0.03591286	7.36E-02	0.02639708	0.00897822
2021Vendor Vendor	3.00E-01	0.09596661	0.02395643	7.36E-02	0.04112855	0.00598911
2021Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2035Hauling Hauling	3.00E-01	0.061620896	0.03592884	7.36E-02	0.02640896	0.00898221
2035Vendor Vendor	3.00E-01	0.095980467	0.02396442	7.36E-02	0.04113449	0.0059911
2035Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day)					
					PM10			PM2.5		
					RD	BW	TW	RD	BW	TW
Grading - SC	2020									
Total Haul Trips	0									
Hauling	0	8	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	8	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	20	8	10	10.8	0.14	0.02	0.00	0.04	0.01	0.00
BC - SC	2020									
Total Haul Trips	0									
Hauling	0	227	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	17	227	10	7.3	0.08	0.03	0.01	0.02	0.01	0.00
Worker	39	227	10	10.8	0.28	0.03	0.01	0.07	0.01	0.00

Winton
Road Dust, Break Wear, and Tire wear Emissions

	Emission Factors (grams/mile)					
	PM10			PM2.5		
	RD	BW	TW	RD	BW	TW
2020Hauling Hauling	3.00E-01	0.061590812	0.03591141	7.36E-02	0.02639606	0.00897785
2020Vendor Vendor	3.00E-01	0.095965425	0.02395571	7.36E-02	0.04112804	0.00598893
2020Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2021Hauling Hauling	3.00E-01	0.061593183	0.03591286	7.36E-02	0.02639708	0.00897822
2021Vendor Vendor	3.00E-01	0.09596661	0.02395643	7.36E-02	0.04112855	0.00598911
2021Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2035Hauling Hauling	3.00E-01	0.061620896	0.03592884	7.36E-02	0.02640896	0.00898221
2035Vendor Vendor	3.00E-01	0.095980467	0.02396442	7.36E-02	0.04113449	0.0059911
2035Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day) PM10 RD	PM10 BW	PM10 TW	PM2.5 RD	PM2.5 BW	PM2.5 TW
<u>Paving - SC</u>	2020									
Total Haul Trips	0									
Hauling	0	18	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	18	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	20	18	10	10.8	0.14	0.02	0.00	0.04	0.01	0.00
<u>AC - SC</u>	2020									
Total Haul Trips	0									
Hauling	0	18	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	18	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	8	18	10	10.8	0.06	0.01	0.00	0.01	0.00	0.00

Winton
Road Dust, Break Wear, and Tire wear Emissions

	Emission Factors (grams/mile)					
	PM10			PM2.5		
	RD	BW	TW	RD	BW	TW
2020Hauling Hauling	3.00E-01	0.061590812	0.03591141	7.36E-02	0.02639606	0.00897785
2020Vendor Vendor	3.00E-01	0.095965425	0.02395571	7.36E-02	0.04112804	0.00598893
2020Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2021Hauling Hauling	3.00E-01	0.061593183	0.03591286	7.36E-02	0.02639708	0.00897822
2021Vendor Vendor	3.00E-01	0.09596661	0.02395643	7.36E-02	0.04112855	0.00598911
2021Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2035Hauling Hauling	3.00E-01	0.061620896	0.03592884	7.36E-02	0.02640896	0.00898221
2035Vendor Vendor	3.00E-01	0.095980467	0.02396442	7.36E-02	0.04113449	0.0059911
2035Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day)					
					PM10			PM2.5		
					RD	BW	TW	RD	BW	TW
Demolition - GO	2020									
Total Haul Trips	2									
Hauling	1	20	10	20	0.01	0.00	0.00	0.00	0.00	0.00
Vendor	0	20	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	13	20	10	10.8	0.09	0.01	0.00	0.02	0.00	0.00
Site Prep - GO	2020									
Total Haul Trips	0									
Hauling	0	3	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	3	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	8	3	10	10.8	0.06	0.01	0.00	0.01	0.00	0.00

Winton
Road Dust, Break Wear, and Tire wear Emissions

	Emission Factors (grams/mile)					
	PM10			PM2.5		
	RD	BW	TW	RD	BW	TW
2020Hauling Hauling	3.00E-01	0.061590812	0.03591141	7.36E-02	0.02639606	0.00897785
2020Vendor Vendor	3.00E-01	0.095965425	0.02395571	7.36E-02	0.04112804	0.00598893
2020Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2021Hauling Hauling	3.00E-01	0.061593183	0.03591286	7.36E-02	0.02639708	0.00897822
2021Vendor Vendor	3.00E-01	0.09596661	0.02395643	7.36E-02	0.04112855	0.00598911
2021Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2035Hauling Hauling	3.00E-01	0.061620896	0.03592884	7.36E-02	0.02640896	0.00898221
2035Vendor Vendor	3.00E-01	0.095980467	0.02396442	7.36E-02	0.04113449	0.0059911
2035Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day)					
					PM10			PM2.5		
					RD	BW	TW	RD	BW	TW
<u>Grading - GO</u>	2020									
Total Haul Trips	0									
Hauling	0	6	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	6	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	10	6	10	10.8	0.07	0.01	0.00	0.02	0.00	0.00
<u>BC - GO</u>	2020									
Total Haul Trips	0									
Hauling	0	220	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	10	220	10	7.3	0.05	0.02	0.00	0.01	0.01	0.00
Worker	22	220	10	10.8	0.16	0.02	0.00	0.04	0.01	0.00

Winton
Road Dust, Break Wear, and Tire wear Emissions

	Emission Factors (grams/mile)					
	PM10			PM2.5		
	RD	BW	TW	RD	BW	TW
2020Hauling Hauling	3.00E-01	0.061590812	0.03591141	7.36E-02	0.02639606	0.00897785
2020Vendor Vendor	3.00E-01	0.095965425	0.02395571	7.36E-02	0.04112804	0.00598893
2020Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2021Hauling Hauling	3.00E-01	0.061593183	0.03591286	7.36E-02	0.02639708	0.00897822
2021Vendor Vendor	3.00E-01	0.09596661	0.02395643	7.36E-02	0.04112855	0.00598911
2021Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2035Hauling Hauling	3.00E-01	0.061620896	0.03592884	7.36E-02	0.02640896	0.00898221
2035Vendor Vendor	3.00E-01	0.095980467	0.02396442	7.36E-02	0.04113449	0.0059911
2035Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day) PM10 RD	PM10 BW	PM10 TW	PM2.5 RD	PM2.5 BW	PM2.5 TW
<u>Paving - GO</u>	2020									
Total Haul Trips	0									
Hauling	0	10	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	10	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	15	10	10	10.8	0.11	0.01	0.00	0.03	0.01	0.00
<u>AC - GO</u>	2020									
Total Haul Trips	0									
Hauling	0	10	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	10	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	4	10	10	10.8	0.03	0.00	0.00	0.01	0.00	0.00

Winton

Road Dust, Break Wear, and Tire wear Emissions

	Emission Factors (grams/mile)					
	PM10			PM2.5		
	RD	BW	TW	RD	BW	TW
2020Hauling Hauling	3.00E-01	0.061590812	0.03591141	7.36E-02	0.02639606	0.00897785
2020Vendor Vendor	3.00E-01	0.095965425	0.02395571	7.36E-02	0.04112804	0.00598893
2020Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2021Hauling Hauling	3.00E-01	0.061593183	0.03591286	7.36E-02	0.02639708	0.00897822
2021Vendor Vendor	3.00E-01	0.09596661	0.02395643	7.36E-02	0.04112855	0.00598911
2021Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2035Hauling Hauling	3.00E-01	0.061620896	0.03592884	7.36E-02	0.02640896	0.00898221
2035Vendor Vendor	3.00E-01	0.095980467	0.02396442	7.36E-02	0.04113449	0.0059911
2035Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day) PM10 RD	PM10 BW	PM10 TW	PM2.5 RD	PM2.5 BW	PM2.5 TW
<u>Demolition - Ind</u>	2020									
Total Haul Trips	2									
Hauling	1	19	10	20	0.01	0.00	0.00	0.00	0.00	0.00
Vendor	0	19	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	15	19	10	10.8	0.11	0.01	0.00	0.03	0.01	0.00
<u>Site Prep - Ind</u>	2020									
Total Haul Trips	0									
Hauling	0	9	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	9	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	18	9	10	10.8	0.13	0.02	0.00	0.03	0.01	0.00

Winton
Road Dust, Break Wear, and Tire wear Emissions

	Emission Factors (grams/mile)					
	PM10			PM2.5		
	RD	BW	TW	RD	BW	TW
2020Hauling Hauling	3.00E-01	0.061590812	0.03591141	7.36E-02	0.02639606	0.00897785
2020Vendor Vendor	3.00E-01	0.095965425	0.02395571	7.36E-02	0.04112804	0.00598893
2020Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2021Hauling Hauling	3.00E-01	0.061593183	0.03591286	7.36E-02	0.02639708	0.00897822
2021Vendor Vendor	3.00E-01	0.09596661	0.02395643	7.36E-02	0.04112855	0.00598911
2021Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2035Hauling Hauling	3.00E-01	0.061620896	0.03592884	7.36E-02	0.02640896	0.00898221
2035Vendor Vendor	3.00E-01	0.095980467	0.02396442	7.36E-02	0.04113449	0.0059911
2035Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day)					
					PM10			PM2.5		
					RD	BW	TW	RD	BW	TW
<u>Grading - Ind</u>	2020									
Total Haul Trips	0									
Hauling	0	19	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	19	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	15	19	10	10.8	0.11	0.01	0.00	0.03	0.01	0.00
<u>BC - Ind</u>	2020									
Total Haul Trips	0									
Hauling	0	214	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	28	214	10	7.3	0.14	0.04	0.01	0.03	0.02	0.00
Worker	72	214	10	10.8	0.51	0.06	0.01	0.13	0.03	0.00

Winton

Road Dust, Break Wear, and Tire wear Emissions

	Emission Factors (grams/mile)					
	PM10			PM2.5		
	RD	BW	TW	RD	BW	TW
2020Hauling Hauling	3.00E-01	0.061590812	0.03591141	7.36E-02	0.02639606	0.00897785
2020Vendor Vendor	3.00E-01	0.095965425	0.02395571	7.36E-02	0.04112804	0.00598893
2020Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2021Hauling Hauling	3.00E-01	0.061593183	0.03591286	7.36E-02	0.02639708	0.00897822
2021Vendor Vendor	3.00E-01	0.09596661	0.02395643	7.36E-02	0.04112855	0.00598911
2021Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2035Hauling Hauling	3.00E-01	0.061620896	0.03592884	7.36E-02	0.02640896	0.00898221
2035Vendor Vendor	3.00E-01	0.095980467	0.02396442	7.36E-02	0.04113449	0.0059911
2035Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day)					
					PM10			PM2.5		
					RD	BW	TW	RD	BW	TW
<u>Paving - Ind</u>	2020									
Total Haul Trips	0									
Hauling	0	20	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	20	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	15	20	10	10.8	0.11	0.01	0.00	0.03	0.01	0.00
<u>AC - Ind</u>	2020									
Total Haul Trips	0									
Hauling	0	20	10	20	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	20	10	7.3	0.00	0.00	0.00	0.00	0.00	0.00
Worker	14	20	10	10.8	0.10	0.01	0.00	0.02	0.01	0.00

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Road Dust

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Road Dust

Paved Road Dust Emission Factors (Assumes No Precipitation)

Formula: $EF_{Dust,P} = (k\ (sL)^{0.91} \times (W)^{1.02})$

Where:

$EF_{Dust,P}$ =	Paved Road Dust Emission Factor (having the same units as k)
k =	particle size multiplier
sL =	road surface silt loading (g/m^2)
W =	average fleet vehicle weight (tons) (CARB uses 2.4 tons as a fleet average vehicle weight factor)

	Emission Factor (grams per VMT)	
	PM10	PM2.5
k	0.9979	0.2449
sL	0.1	0.1
W	2.4	2.4
$EF_{Dust,P}$	3.00E-01	7.36E-02

Unpaved Road Dust Emission Factors (Assumes No Precipitation)

Formula: $EF_{Dust,U} = (k\ (s / 12)^{1} \times (Sp / 30)^{0.5} / (M / 0.5)^{0.2}) - C)$

Where:

$EF_{Dust,U}$ =	Unpaved Road Dust Emission Factor (having the same units as k)
k =	particle size multiplier
s =	surface material silt content (%)
Sp =	mean vehicle speed (mph)
M =	surface material moisture content (%)
C =	Emission Factor for 1980s vehicle fleet exhaust, brake wear, and tire wear

	Emission Factor (grams per VMT)	
	PM10	PM2.5
k	816.47	81.65
s	4.3%	4.3%
Sp	15	15
M	0.5%	0.5%
C	0.00047	0.00036
$EF_{Dust,U}$	5.20E+00	5.19E-01

Sources:
SCAQMD, CalEEMod, Version 2011.1.
CARB, *Entrained Dust from Paved Road Travel: Emission Estimation Methodology Background Document* , (1997).
USEPA, *AP-42* , Fifth Edition, Volume I, Chapter 13.2.1 - Paved Roads, (2011).
PCR Services Corporation, 2013.

Winton
Operational CalEEMod Input Values

Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	Calendar Year: 2035
	Fleet Mix	0.624147	0.046996	0.149531	0.104852	0.017592372	0.004672205	0.021097881	0.02	0.001685	0.001497	0.005527	0.001862917	0.000539	Revised (see assumptions)
A	CH4_IDLEX	0	0	0	0	0.003430386	0.00214029	0.002786576	0.023726737	0.007398	0	0	0.022231038	0	
A	CH4_RUNEX	0.000892	0.00143	0.001557	0.002026	0.005112326	0.005617202	0.000953712	0.002233535	0.001952	1.885676	0.348297	0.002272834	0.004824	
A	CH4_STREX	0.023945	0.029686	0.034542	0.040989	0.007179506	0.003846373	0.005597451	3.16233E-08	0.012692	0.045718	0.244303	0.001837105	0.018249	
A	CO_IDLEX	0	0	0	0	0.162090057	0.122691901	0.442163046	7.50406411	1.022148	0	0	1.44556952	0	
A	CO_RUNEX	0.41546	0.50509	0.545079	0.598002	0.497483946	0.561630302	0.160166232	0.211802679	0.224019	13.87853	18.20307	0.184397514	0.286656	
A	CO_STREX	1.540225	1.663133	2.058676	2.19387	0.752325978	0.397285156	0.520389367	0.00057889	1.196027	3.391971	9.145967	0.226445918	1.481188	
A	CO2_NBIO_IDLEX	0	0	0	0	8.458848162	13.53305266	87.09271518	1007.754932	154.2876	0	0	286.857681	0	
A	CO2_NBIO_RUNEX	200.2306	239.8026	242.4707	301.563	664.8780263	658.8167795	980.9742089	1040.69009	1161.63	1467.432	217.4121	919.775392	1305.159	
A	CO2_NBIO_STREX	39.45584	48.09828	48.96375	60.80875	8.353369096	5.325726531	5.211425845	0.004246009	10.3291	32.98457	59.14986	1.358110536	14.11256	
A	NOX_IDLEX	0	0	0	0	0.065705006	0.090556763	0.471839681	6.019944837	0.764035	0	0	2.108480115	0	
A	NOX_RUNEX	0.018615	0.026955	0.028624	0.038936	0.508330573	0.620254264	1.677062228	2.15902979	1.383507	0.321603	1.147283	2.192836198	1.235724	
A	NOX_STREX	0.119843	0.141321	0.148222	0.178938	0.181325015	0.105597108	1.921693694	2.236300989	1.363671	0.354947	0.266258	1.626747487	0.230078	
A	PM10_IDLEX	0	0	0	0	0.001084995	0.001567625	0.000153147	0.002195957	0.000261	0	0	0.001105294	0	
A	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.076440022	0.089180026	0.130340037	0.061620896	0.13034	0.114222	0.01176	0.744800212	0.13034	
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.010097269	0.010966461	0.012000003	0.035928835	0.012	0.014946	0.004	0.011242764	0.013276	
A	PM10_RUNEX	0.000808	0.000924	0.000912	0.000943	0.009848892	0.016552188	0.008358496	0.025450426	0.009382	0.002645	0.002363	0.016118601	0.021263	
A	PM10_STREX	0.001041	0.001191	0.001096	0.001163	0.000165175	8.33291E-05	6.96819E-05	4.97981E-08	0.00012	0.00044	0.002727	1.96639E-05	0.000194	
A	PM25_IDLEX	0	0	0	0	0.001038059	0.00149981	0.000146522	0.00210096	0.00025	0	0	0.001057479	0	
A	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.032760009	0.038220011	0.055860016	0.026408955	0.05586	0.048952	0.00504	0.319200091	0.05586	
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.002524317	0.002741615	0.003000001	0.008982209	0.003	0.003737	0.001	0.002810691	0.003319	
A	PM25_RUNEX	0.000744	0.000849	0.00084	0.000869	0.009383624	0.01581617	0.00799129	0.024349448	0.008962	0.002494	0.002204	0.015411771	0.020308	
A	PM25_STREX	0.000958	0.001095	0.001008	0.00107	0.000151873	7.66181E-05	6.40699E-05	4.57875E-08	0.00011	0.000405	0.002548	1.80802E-05	0.000178	
A	ROG_DIURN	0.032347	0.064771	0.067586	0.10459	0.001736949	0.000834565	0.000273795	1.48099E-07	0.001407	0.002828	1.509533	0.000405362	0.440771	
A	ROG_HTSK	0.058717	0.09332	0.085397	0.126665	0.048198271	0.022444441	0.009636903	4.58411E-06	0.015167	0.024622	0.834788	0.002515474	0.023801	
A	ROG_IDLEX	0	0	0	0	0.01531738	0.012543771	0.016108174	0.507925653	0.073382	0	0	0.107743437	0	
A	ROG_RESTL	0.024897	0.047653	0.053724	0.085355	0.0007979	0.000413971	0.000135357	7.44873E-08	0.000487	0.00129	0.700219	0.000142955	0.140891	
A	ROG_RUNEX	0.002796	0.005215	0.005652	0.007933	0.081845704	0.108262443	0.013017681	0.020738142	0.015645	0.034137	2.32554	0.039270548	0.043177	
A	ROG_RUNLS	0.173223	0.340653	0.312429	0.396563	0.259091615	0.114302751	0.048352944	2.20859E-05	0.17772	0.138837	1.386166	0.017083916	0.302174	
A	ROG_STREX	0.093323	0.126384	0.146237	0.185048	0.034005873	0.017774297	0.025723802	1.63873E-07	0.060877	0.189118	1.847216	0.009487959	0.068227	
A	SO2_IDLEX	0	0	0	0	8.15399E-05	0.000128956	0.000824506	0.009517452	0.001461	0	0	0.002718422	0	
A	SO2_RUNEX	0.001981	0.002373	0.002399	0.00298	0.006466874	0.006341656	0.009337606	0.009823047	0.011166	0.007495	0.002151	0.008755123	0.012788	
A	SO2_STREX	0.00039	0.000476	0.000485	0.000602	8.26634E-05	5.27024E-05	5.15713E-05	4.20177E-08	0.000102	0.000326	0.000585	1.34396E-05	0.00014	
A	TOG_DIURN	0.032347	0.064771	0.067586	0.10459	0.001736949	0.000834565	0.000273795	1.48099E-07	0.001407	0.002828	1.509533	0.000405362	0.440771	
A	TOG_HTSK	0.058717	0.09332	0.085397	0.126665	0.048198271	0.022444441	0.009636903	4.58411E-06	0.015167	0.024622	0.834788	0.002515474	0.023801	
A	TOG_IDLEX	0	0	0	0	0.020941128	0.016282494	0.021052758	0.578370417	0.088951	0	0	0.149974302	0	
A	TOG_RESTL	0.024897	0.047653	0.053724	0.085355	0.0007979	0.000413971	0.000135357	7.44873E-08	0.000487	0.00129	0.700219	0.000142955	0.140891	
A	TOG_RUNEX	0.004061	0.007624	0.008205	0.01151	0.095150837	0.124051808	0.015327897	0.024891694	0.019749	1.932712	2.910223	0.045418354	0.052484	
A	TOG_RUNLS	0.173223	0.340653	0.312429	0.396563	0.259091615	0.114302751	0.048352944	2.20859E-05	0.17772	0.138837	1.386166	0.017083916	0.302174	
A	TOG_STREX	0.102232	0.138449	0.160198	0.202714	0.037232151	0.019460618	0.028164325	1.7942E-07	0.066653	0.207061	2.011625	0.01038812	0.0747	
S	CH4_IDLEX	0	0	0	0	0.003439784	0.002145775	0.002647486	0.025140903	0.007572	0	0	0.022303076	0	
S	CH4_RUNEX	0.001038	0.001656	0.001804	0.002344	0.005160012	0.005638686	0.000968047	0.002233729	0.001999	1.885753	0.344165	0.002292099	0.004909	
S	CH4_STREX	0.020253	0.025046	0.029144	0.034549	0.006803936	0.003645872	0.005315591	2.97534E-08	0.011912	0.040636	0.209663	0.001484132	0.017018	
S	CO_IDLEX	0	0	0	0	0.162090057	0.122691901	0.398238679	7.406619874	1.010557	0	0	1.422323725	0	
S	CO_RUNEX	0.518249	0.62658	0.676333	0.740043	0.501222879	0.563139355	0.161047411	0.211895719	0.227533	13.88248	18.40296	0.185704312	0.291865	
S	CO_STREX	1.292341	1.393279	1.713591	1.8224	0.700663581	0.370231581	0.482485124	0.000536725	1.083754	2.753093	8.035795	0.15332553	1.342146	
S	CO2_NBIO_IDLEX	0	0	0	0	8.458848162	13.53305266	86.23485932	994.6207927	152.3197	0	0	288.4554369	0	
S	CO2_NBIO_RUNEX	219.2824	259.391	260.4219	319.9337	664.8846979	658.8194742	980.9758061	1040.690242	1161.636	1467.439	217.5903	919.7777814	1305.169	
S	CO2_NBIO_STREX	39.0203	47.6096	48.34739	60.12948	8.265143283	5.279538967	5.146562706	0.004179143	10.13792	31.89914	56.48502	1.236048094	13.87736	
S	NOX_IDLEX	0	0	0	0	0.065705006	0.090556763	0.451276442	5.721999354	0.725886	0	0	2.095364747	0	
S	NOX_RUNEX	0.017413	0.025124	0.026683	0.036285	0.484678257	0.59260744	1.598463838	2.061253533	1.315961	0.310405	1.000133	2.086022916	1.170013	
S	NOX_STREX	0.111973	0.132021	0.138491	0.16717	0.170969609	0.099570924	1.918602564	2.236300943	1.355413	0.33298	0.247448	1.625136409	0.216714	
S	PM10_IDLEX	0	0	0	0	0.001084995	0.001567625	0.000134041	0.001949684	0.000232	0	0	0.000944714	0	
S	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.076440022	0.089180026	0.130340037	0.061620896	0.13034	0.114222	0.01176	0.744800212	0.13034	

S	PM10_PMTW	0.008	0.008	0.008	0.008	0.010097269	0.010966461	0.012000003	0.035928835	0.012	0.014946	0.004	0.011242764	0.013276
S	PM10_RUNEX	0.000808	0.000924	0.000912	0.000943	0.009848892	0.016552188	0.008358496	0.025450426	0.009382	0.002645	0.002363	0.016118601	0.021263
S	PM10_STREX	0.001041	0.001191	0.001096	0.001163	0.000165175	8.33291E-05	6.96819E-05	4.97981E-08	0.00012	0.00044	0.002727	1.96639E-05	0.000194
S	PM25_IDLEX	0	0	0	0	0.001038059	0.00149981	0.000128242	0.001865342	0.000222	0	0	0.000903846	0
S	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.032760009	0.038220011	0.055860016	0.026408955	0.05586	0.048952	0.00504	0.319200091	0.05586
S	PM25_PMTW	0.002	0.002	0.002	0.002	0.002524317	0.002741615	0.003000001	0.008982209	0.003	0.003737	0.001	0.002810691	0.003319
S	PM25_RUNEX	0.000744	0.000849	0.00084	0.000869	0.009383624	0.01581617	0.00799129	0.024349448	0.008962	0.002494	0.002204	0.015411771	0.020308
S	PM25_STREX	0.000958	0.001095	0.001008	0.00107	0.000151873	7.66181E-05	6.40699E-05	4.57875E-08	0.00011	0.000405	0.002548	1.80802E-05	0.000178
S	ROG_DIURN	0.077585	0.155838	0.161075	0.248158	0.004124161	0.001956791	0.000644551	3.48245E-07	0.00329	0.00681	3.868752	0.000943548	1.043946
S	ROG_HTSK	0.066664	0.110195	0.100196	0.147488	0.057670338	0.025487786	0.011018685	5.28715E-06	0.01636	0.03067	1.350601	0.002619031	0.027367
S	ROG_IDLEX	0	0	0	0	0.01531738	0.012543771	0.01596885	0.538248993	0.076768	0	0	0.108554573	0
S	ROG_RESTL	0.051436	0.098278	0.10943	0.172531	0.00160339	0.000814806	0.000270042	1.48912E-07	0.000924	0.002706	1.803963	0.000269273	0.273774
S	ROG_RUNEX	0.003201	0.005966	0.006446	0.009038	0.082018493	0.10833263	0.013064169	0.020739131	0.015822	0.034357	2.287575	0.039344287	0.043482
S	ROG_RUNLS	0.167354	0.329374	0.301915	0.383956	0.257986953	0.113499106	0.04789032	2.17562E-05	0.176039	0.131377	1.345277	0.014904382	0.299569
S	ROG_STREX	0.077882	0.105217	0.121734	0.153944	0.032117939	0.016789486	0.024299124	1.54797E-07	0.05694	0.167442	1.575199	0.007652444	0.063814
S	SO2_IDLEX	0	0	0	0	8.15399E-05	0.000128956	0.000816483	0.009393387	0.001442	0	0	0.002733516	0
S	SO2_RUNEX	0.002169	0.002567	0.002576	0.003162	0.00646694	0.006341683	0.009337621	0.009823049	0.011166	0.007495	0.002153	0.008755147	0.012788
S	SO2_STREX	0.000386	0.000471	0.000478	0.000595	8.17903E-05	5.22453E-05	5.09294E-05	4.1356E-08	0.0001	0.000316	0.000559	1.22317E-05	0.000137
S	TOG_DIURN	0.077585	0.155838	0.161075	0.248158	0.004124161	0.001956791	0.000644551	3.48245E-07	0.00329	0.00681	3.868752	0.000943548	1.043946
S	TOG_HTSK	0.066664	0.110195	0.100196	0.147488	0.057670338	0.025487786	0.011018685	5.28715E-06	0.01636	0.03067	1.350601	0.002619031	0.027367
S	TOG_IDLEX	0	0	0	0	0.020941128	0.016282494	0.02070101	0.612896977	0.092807	0	0	0.150897719	0
S	TOG_RESTL	0.051436	0.098278	0.10943	0.172531	0.00160339	0.000814806	0.000270042	1.48912E-07	0.000924	0.002706	1.803963	0.000269273	0.273774
S	TOG_RUNEX	0.004653	0.008721	0.009367	0.013126	0.09540297	0.124154224	0.015395732	0.024893137	0.020007	1.933033	2.86354	0.045525954	0.052928
S	TOG_RUNLS	0.167354	0.329374	0.301915	0.383956	0.257986953	0.113499106	0.04789032	2.17562E-05	0.176039	0.131377	1.345277	0.014904382	0.299569
S	TOG_STREX	0.085317	0.115262	0.133355	0.168641	0.035165101	0.018382374	0.026604482	1.69483E-07	0.062342	0.183328	1.715448	0.008378463	0.069869
W	CH4_IDLEX	0	0	0	0	0.003420449	0.002134497	0.002914955	0.021773841	0.007164	0	0	0.022148714	0
W	CH4_RUNEX	0.000827	0.001329	0.001445	0.001884	0.005060506	0.005593901	0.000938037	0.002233323	0.0019	1.885597	0.358256	0.002254109	0.004728
W	CH4_STREX	0.027534	0.034205	0.039791	0.047249	0.007588781	0.004064222	0.005922335	3.37962E-08	0.013496	0.051058	0.287093	0.0021566	0.019537
W	CO_IDLEX	0	0	0	0	0.162090057	0.122691901	0.487925631	7.638629959	1.038154	0	0	1.477670856	0
W	CO_RUNEX	0.385646	0.470006	0.507154	0.556982	0.493609837	0.560066692	0.15921953	0.211703738	0.220244	13.87461	19.43906	0.183147586	0.28106
W	CO_STREX	1.870323	2.020777	2.50682	2.673633	0.812501144	0.428741521	0.566677516	0.000630382	1.317121	4.094597	10.74193	0.298949051	1.631154
W	CO2_NBIO_IDLEX	0	0	0	0	8.458848162	13.53305266	88.34632718	1025.892553	157.0051	0	0	284.6512562	0
W	CO2_NBIO_RUNEX	193.4118	232.7936	236.0496	294.9926	664.8710719	658.8139706	980.9724858	1040.689928	1161.623	1467.424	219.6807	919.7730994	1305.149
W	CO2_NBIO_STREX	40.01926	48.72389	49.74067	61.65689	8.455706622	5.379203524	5.29031858	0.004327663	10.53472	34.17542	62.82561	1.478626254	14.3656
W	NOX_IDLEX	0	0	0	0	0.065705006	0.090556763	0.50024852	6.43139336	0.816716	0	0	2.126591813	0
W	NOX_RUNEX	0.020398	0.02959	0.0314	0.042708	0.518974723	0.631849557	1.707297626	2.198900708	1.411868	0.328921	1.247901	2.23656213	1.264761
W	NOX_STREX	0.132836	0.156633	0.164279	0.198317	0.194110809	0.113047015	1.925524479	2.236301045	1.373859	0.379615	0.287683	1.628317912	0.246566
W	PM10_IDLEX	0	0	0	0	0.001084995	0.001567625	0.000179531	0.002536047	0.000302	0	0	0.001327047	0
W	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.076440022	0.089180026	0.130340037	0.061620896	0.13034	0.114222	0.01176	0.744800212	0.13034
W	PM10_PMTW	0.008	0.008	0.008	0.008	0.010097269	0.010966461	0.012000003	0.035928835	0.012	0.014946	0.004	0.011242764	0.013276
W	PM10_RUNEX	0.000808	0.000924	0.000912	0.000943	0.009848892	0.016552188	0.008358496	0.025450426	0.009382	0.002645	0.002363	0.016118601	0.021263
W	PM10_STREX	0.001041	0.001191	0.001096	0.001163	0.000165175	8.33291E-05	6.96819E-05	4.97981E-08	0.00012	0.00044	0.002727	1.96639E-05	0.000194
W	PM25_IDLEX	0	0	0	0	0.001038059	0.00149981	0.000171765	0.002426338	0.000289	0	0	0.001269639	0
W	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.032760009	0.038220011	0.055860016	0.026408955	0.05586	0.048952	0.00504	0.319200091	0.05586
W	PM25_PMTW	0.002	0.002	0.002	0.002	0.002524317	0.002741615	0.003000001	0.008982209	0.003	0.003737	0.001	0.002810691	0.003319
W	PM25_RUNEX	0.000744	0.000849	0.00084	0.000869	0.009383624	0.01581617	0.00799129	0.024349448	0.008962	0.002494	0.002204	0.015411771	0.020308
W	PM25_STREX	0.000958	0.001095	0.001008	0.00107	0.000151873	7.66181E-05	6.40699E-05	4.57875E-08	0.00011	0.000405	0.002548	1.80802E-05	0.000178
W	ROG_DIURN	0.010868	0.021872	0.023165	0.036243	0.000623391	0.000308182	9.92799E-05	5.34322E-08	0.000538	0.000987	0.419569	0.000155115	0.162376
W	ROG_HTSK	0.058389	0.092676	0.084793	0.125803	0.047946111	0.022352263	0.00956812	4.54733E-06	0.015112	0.024381	0.821994	0.002512252	0.023656
W	ROG_IDLEX	0	0	0	0	0.01531738	0.012543771	0.016071203	0.466050563	0.068704	0	0	0.106623297	0
W	ROG_RESTL	0.009675	0.018669	0.021207	0.03394	0.000365434	0.000192665	6.20556E-05	3.40172E-08	0.00027	0.000615	0.200233	7.96113E-05	0.076681
W	ROG_RUNEX	0.002633	0.004912	0.005331	0.007486	0.081657023	0.108185802	0.012966084	0.020737067	0.015448	0.033914	2.409714	0.039198329	0.042839
W	ROG_RUNLS	0.205219	0.410439	0.375008	0.473401	0.288507575	0.126855096	0.054008108	2.4707E-05	0.192491	0.171337	1.672385	0.021561987	0.328374
W	ROG_STREX	0.108921	0.14783	0.171012	0.216488	0.036078019	0.018851665	0.027369081	1.74354E-07	0.064953	0.212097	2.19166	0.011154153	0.072795
W	SO2_IDLEX	0	0	0	0	8.15399E-05	0.000128956	0.000836269	0.009688779	0.001487	0	0	0.002697576	0

W	SO2_RUNEX	0.001913	0.002304	0.002335	0.002915	0.006466805	0.006341628	0.009337589	0.009823046	0.011166	0.007495	0.002174	0.008755101	0.012788
W	SO2_STREX	0.000396	0.000482	0.000492	0.00061	8.36761E-05	5.32316E-05	5.2352E-05	4.28257E-08	0.000104	0.000338	0.000622	1.46322E-05	0.000142
W	TOG_DIURN	0.010868	0.021872	0.023165	0.036243	0.000623391	0.000308182	9.92799E-05	5.34322E-08	0.000538	0.000987	0.419569	0.000155115	0.162376
W	TOG_HTSK	0.058389	0.092676	0.084793	0.125803	0.047946111	0.022352263	0.00956812	4.54733E-06	0.015112	0.024381	0.821994	0.002512252	0.023656
W	TOG_IDLEX	0	0	0	0	0.020941128	0.016282494	0.021203807	0.530690882	0.083627	0	0	0.148699109	0
W	TOG_RESTL	0.009675	0.018669	0.021207	0.03394	0.000365434	0.000192665	6.20556E-05	3.40172E-08	0.00027	0.000615	0.200233	7.96113E-05	0.076681
W	TOG_RUNEX	0.003823	0.00718	0.007736	0.010856	0.094875514	0.123939973	0.015252606	0.024890126	0.019462	1.932386	3.014379	0.045312972	0.05199
W	TOG_RUNLS	0.205219	0.410439	0.375008	0.473401	0.288507575	0.126855096	0.054008108	2.4707E-05	0.192491	0.171337	1.672385	0.021561987	0.328374
W	TOG_STREX	0.119319	0.161944	0.187339	0.237156	0.03950089	0.0206402	0.029965699	1.90895E-07	0.071116	0.23222	2.386637	0.012212393	0.079702

Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	0
	Fleet Mix	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	CH4_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	CH4_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	CH4_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	CO_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	CO_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	CO_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	CO2_NBIO_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	CO2_NBIO_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	CO2_NBIO_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	NOX_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	NOX_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	NOX_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	PM10_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	PM10_PMBW	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	PM10_PMTW	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	PM10_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	PM10_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	PM25_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	PM25_PMBW	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	PM25_PMTW	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	PM25_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	PM25_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	ROG_DIURN	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	ROG_HTSK	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	ROG_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	ROG_RESTL	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	ROG_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	ROG_RUNLS	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	ROG_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	SO2_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	SO2_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	SO2_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	TOG_DIURN	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	TOG_HTSK	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	TOG_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	TOG_RESTL	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	TOG_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	TOG_RUNLS	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
A	TOG_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
S	CH4_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
S	CH4_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
S	CH4_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
S	CO_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	

S	CO_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	CO_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	CO2_NBIO_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	CO2_NBIO_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	CO2_NBIO_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	NOX_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	NOX_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	NOX_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	PM10_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	PM10_PMBW	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	PM10_PMTW	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	PM10_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	PM10_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	PM25_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	PM25_PMBW	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	PM25_PMTW	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	PM25_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	PM25_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	ROG_DIURN	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	ROG_HTSK	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	ROG_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	ROG_RESTL	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	ROG_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	ROG_RUNLS	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	ROG_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	SO2_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	SO2_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	SO2_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	TOG_DIURN	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	TOG_HTSK	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	TOG_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	TOG_RESTL	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	TOG_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	TOG_RUNLS	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
S	TOG_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	CH4_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	CH4_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	CH4_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	CO_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	CO_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	CO_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	CO2_NBIO_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	CO2_NBIO_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	CO2_NBIO_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	NOX_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	NOX_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	NOX_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	PM10_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	PM10_PMBW	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	PM10_PMTW	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	PM10_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	PM10_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	PM25_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	PM25_PMBW	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	PM25_PMTW	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

W	PM25_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	PM25_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	ROG_DIURN	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	ROG_HTSK	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	ROG_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	ROG_RESTL	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	ROG_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	ROG_RUNLS	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	ROG_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	SO2_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	SO2_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	SO2_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	TOG_DIURN	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	TOG_HTSK	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	TOG_IDLEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	TOG_RESTL	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	TOG_RUNEX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	TOG_RUNLS	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
W	TOG_STREX	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

Air Quality Appendix
C. Modeling Output
3. CalEEMod
a. Unmitigated Construction

Modeling Output included in this Appendix:

Winton - Construction Only - SFR
Winton - Construction - Shopping Center - Unmitigated
Winton - General Office - Unmitigated
Winton - Construction Industrial - Unmitigated

Winton - Construction Only - SFR

Merced County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	168.00	Dwelling Unit	50.00	302,400.00	480
Other Asphalt Surfaces	5.00	Acre	5.00	217,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	49
Climate Zone	3			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	610.93	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions - Modeling assumes 1 of 4 average size developments that coud occur using 10% of total buildout.

Land Use - See Assumptions

Construction Phase - See Assumptions

Off-road Equipment - See Assumptions

Off-road Equipment - See Assumptions

Off-road Equipment - See Assumptions

Off-road Equipment - See Assumptions

Off-road Equipment - See Assumptions

Off-road Equipment - See Assumptions

Demolition - See Assumptions

Trips and VMT - Modeled outside of CalEEMod to account for EMFAC2017 and SAFE Rule 1

On-road Fugitive Dust - See Assumptions

Vehicle Trips - Operational emissions modeled seaparately.

Construction Off-road Equipment Mitigation - see assumptions

Architectural Coating - 150

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	1,110.00	217.00
tblConstructionPhase	NumDays	70.00	14.00
tblConstructionPhase	NumDays	110.00	22.00
tblConstructionPhase	NumDays	40.00	8.00
tblConstructionPhase	PhaseEndDate	9/2/2025	12/31/2020
tblConstructionPhase	PhaseEndDate	2/4/2025	12/31/2020
tblConstructionPhase	PhaseEndDate	4/7/2020	1/20/2020
tblConstructionPhase	PhaseEndDate	11/3/2020	3/3/2020
tblConstructionPhase	PhaseEndDate	5/20/2025	6/16/2020
tblConstructionPhase	PhaseEndDate	6/2/2020	1/30/2020
tblConstructionPhase	PhaseStartDate	5/21/2025	9/18/2020
tblConstructionPhase	PhaseStartDate	11/4/2020	3/4/2020
tblConstructionPhase	PhaseStartDate	6/3/2020	2/1/2020
tblConstructionPhase	PhaseStartDate	2/5/2025	3/4/2020
tblConstructionPhase	PhaseStartDate	4/8/2020	1/21/2020
tblGrading	AcresOfGrading	55.00	275.00
tblLandUse	LotAcreage	54.55	50.00
tblOnRoadDust	RoadSiltLoading	0.10	0.06
tblOnRoadDust	RoadSiltLoading	0.10	0.06
tblOnRoadDust	RoadSiltLoading	0.10	0.06
tblOnRoadDust	RoadSiltLoading	0.10	0.06

tblOnRoadDust	RoadSiltLoading	0.10	0.06
tblOnRoadDust	RoadSiltLoading	0.10	0.06
tblProjectCharacteristics	CO2IntensityFactor	641.35	610.93
tblTripsAndVMT	HaulingTripNumber	16.00	0.00
tblTripsAndVMT	VendorTripNumber	54.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	152.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	30.00	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	HO_TL	7.50	0.00
tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HW_TL	10.80	0.00
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	9.52	0.00
tblWoodstoves	NumberCatalytic	50.00	49.00
tblWoodstoves	NumberNoncatalytic	50.00	49.00

2.0 Emissions Summary

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description

1	Demolition	Demolition	1/1/2020	1/20/2020	5	14	
2	Site Preparation	Site Preparation	1/21/2020	1/30/2020	5	8	
3	Grading	Grading	2/1/2020	3/3/2020	5	22	
4	Building Construction	Building Construction	3/4/2020	12/31/2020	5	217	
5	Paving	Paving	3/4/2020	6/16/2020	5	75	
6	Architectural Coating	Architectural Coating	9/18/2020	12/31/2020	5	75	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 275

Acres of Paving: 5

Residential Indoor: 612,360; Residential Outdoor: 204,120; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

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

Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

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
Demolition	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7700e-003	0.0000	1.7700e-003	2.7000e-004	0.0000	2.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0232	0.2324	0.1523	2.7000e-004		0.0116	0.0116		0.0108	0.0108	0.0000	23.7990	23.7990	6.7200e-003	0.0000	23.9670

Total	0.0232	0.2324	0.1523	2.7000e-004	1.7700e-003	0.0116	0.0134	2.7000e-004	0.0108	0.0111	0.0000	23.7990	23.7990	6.7200e-003	0.0000	23.9670

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					
Fugitive Dust					6.6000e-004	0.0000	6.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0232	0.2324	0.1523	2.7000e-004		0.0116	0.0116		0.0108	0.0108	0.0000	23.7990	23.7990	6.7200e-003	0.0000	23.9670
Total	**0.0232**	**0.2324**	**0.1523**	**2.7000e-004**	**6.6000e-004**	**0.0116**	**0.0123**	**1.0000e-004**	**0.0108**	**0.0109**	**0.0000**	**23.7990**	**23.7990**	**6.7200e-003**	**0.0000**	**23.9670**

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**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0723	0.0000	0.0723	0.0397	0.0000	0.0397	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0163	0.1697	0.0861	1.5000e-004		8.7900e-003	8.7900e-003		8.0900e-003	8.0900e-003	0.0000	13.3723	13.3723	4.3200e-003	0.0000	13.4804
Total	**0.0163**	**0.1697**	**0.0861**	**1.5000e-004**	**0.0723**	**8.7900e-003**	**0.0811**	**0.0397**	**8.0900e-003**	**0.0478**	**0.0000**	**13.3723**	**13.3723**	**4.3200e-003**	**0.0000**	**13.4804**

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					
Fugitive Dust					0.0268	0.0000	0.0268	0.0147	0.0000	0.0147	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0163	0.1697	0.0861	1.5000e-004		8.7900e-003	8.7900e-003		8.0900e-003	8.0900e-003	0.0000	13.3723	13.3723	4.3200e-003	0.0000	13.4804
Total	**0.0163**	**0.1697**	**0.0861**	**1.5000e-004**	**0.0268**	**8.7900e-003**	**0.0356**	**0.0147**	**8.0900e-003**	**0.0228**	**0.0000**	**13.3723**	**13.3723**	**4.3200e-003**	**0.0000**	**13.4804**

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**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2121	0.0000	0.2121	0.0522	0.0000	0.0522	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0490	0.5522	0.3515	6.8000e-004		0.0239	0.0239		0.0220	0.0220	0.0000	59.9327	59.9327	0.0194	0.0000	60.4173
Total	**0.0490**	**0.5522**	**0.3515**	**6.8000e-004**	**0.2121**	**0.0239**	**0.2360**	**0.0522**	**0.0220**	**0.0742**	**0.0000**	**59.9327**	**59.9327**	**0.0194**	**0.0000**	**60.4173**

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					
Fugitive Dust					0.0786	0.0000	0.0786	0.0193	0.0000	0.0193	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0490	0.5522	0.3515	6.8000e-004		0.0239	0.0239		0.0220	0.0220	0.0000	59.9327	59.9327	0.0194	0.0000	60.4172
Total	**0.0490**	**0.5522**	**0.3515**	**6.8000e-004**	**0.0786**	**0.0239**	**0.1025**	**0.0193**	**0.0220**	**0.0413**	**0.0000**	**59.9327**	**59.9327**	**0.0194**	**0.0000**	**60.4172**

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**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2300	2.0817	1.8281	2.9200e-003		0.1212	0.1212		0.1140	0.1140	0.0000	251.2968	251.2968	0.0613	0.0000	252.8295

Total	**0.2300**	**2.0817**	**1.8281**	**2.9200e-003**		**0.1212**	**0.1212**		**0.1140**	**0.1140**	**0.0000**	**251.2968**	**251.2968**	**0.0613**	**0.0000**	**252.8295**

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					
Off-Road	0.2300	2.0817	1.8281	2.9200e-003		0.1212	0.1212		0.1140	0.1140	0.0000	251.2965	251.2965	0.0613	0.0000	252.8292
Total	**0.2300**	**2.0817**	**1.8281**	**2.9200e-003**		**0.1212**	**0.1212**		**0.1140**	**0.1140**	**0.0000**	**251.2965**	**251.2965**	**0.0613**	**0.0000**	**252.8292**

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**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0509	0.5275	0.5495	8.5000e-004		0.0282	0.0282		0.0260	0.0260	0.0000	75.1058	75.1058	0.0243	0.0000	75.7131
Paving	6.5500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0574**	**0.5275**	**0.5495**	**8.5000e-004**		**0.0282**	**0.0282**		**0.0260**	**0.0260**	**0.0000**	**75.1058**	**75.1058**	**0.0243**	**0.0000**	**75.7131**

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					
Off-Road	0.0509	0.5275	0.5495	8.5000e-004		0.0282	0.0282		0.0260	0.0260	0.0000	75.1057	75.1057	0.0243	0.0000	75.7130
Paving	6.5500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0574**	**0.5275**	**0.5495**	**8.5000e-004**		**0.0282**	**0.0282**		**0.0260**	**0.0260**	**0.0000**	**75.1057**	**75.1057**	**0.0243**	**0.0000**	**75.7130**

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**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.8837					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0800e-003	0.0631	0.0687	1.1000e-004		4.1600e-003	4.1600e-003		4.1600e-003	4.1600e-003	0.0000	9.5747	9.5747	7.4000e-004	0.0000	9.5932
Total	**2.8928**	**0.0631**	**0.0687**	**1.1000e-004**		**4.1600e-003**	**4.1600e-003**		**4.1600e-003**	**4.1600e-003**	**0.0000**	**9.5747**	**9.5747**	**7.4000e-004**	**0.0000**	**9.5932**

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	2.8837					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0800e-003	0.0631	0.0687	1.1000e-004		4.1600e-003	4.1600e-003		4.1600e-003	4.1600e-003	0.0000	9.5747	9.5747	7.4000e-004	0.0000	9.5932
Total	**2.8928**	**0.0631**	**0.0687**	**1.1000e-004**		**4.1600e-003**	**4.1600e-003**		**4.1600e-003**	**4.1600e-003**	**0.0000**	**9.5747**	**9.5747**	**7.4000e-004**	**0.0000**	**9.5932**

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

#

Winton - Construction - Shopping Center - Unmitigated

Merced County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	36.95	1000sqft	3.47	36,950.00	0
Parking Lot	1.50	Acre	1.50	65,340.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	49
Climate Zone	3			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	610.93	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Demolition - See Assumptions

Trips and VMT - Modeled Outside of CalEEMod

On-road Fugitive Dust - See Assumptions

Vehicle Trips - Operational Modeled Separately

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	230.00	227.00
tblConstructionPhase	PhaseEndDate	2/22/2021	12/31/2020
tblConstructionPhase	PhaseEndDate	1/1/2021	12/29/2020
tblConstructionPhase	PhaseEndDate	1/27/2021	3/11/2020
tblConstructionPhase	PhaseStartDate	1/28/2021	12/8/2020
tblConstructionPhase	PhaseStartDate	1/2/2021	2/15/2020
tblLandUse	LotAcreage	0.85	3.47
tblOnRoadDust	RoadSiltLoading	0.10	0.06
tblOnRoadDust	RoadSiltLoading	0.10	0.06
tblOnRoadDust	RoadSiltLoading	0.10	0.06
tblOnRoadDust	RoadSiltLoading	0.10	0.06
tblOnRoadDust	RoadSiltLoading	0.10	0.06
tblOnRoadDust	RoadSiltLoading	0.10	0.06
tblProjectCharacteristics	CO2IntensityFactor	641.35	610.93
tblTripsAndVMT	HaulingTripNumber	2.00	0.00
tblTripsAndVMT	VendorTripNumber	17.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	39.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	44.32	0.00

2.0 Emissions Summary

- Summary not used

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/28/2020	5	20	
2	Site Preparation	Site Preparation	1/29/2020	2/4/2020	5	5	
3	Grading	Grading	2/5/2020	2/14/2020	5	8	
4	Building Construction	Building Construction	2/15/2020	12/29/2020	5	227	
5	Paving	Paving	2/15/2020	3/11/2020	5	18	
6	Architectural Coating	Architectural Coating	12/8/2020	12/31/2020	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 1.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 55,425; Non-Residential Outdoor: 18,475; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Grading	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74

Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

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
Demolition	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Fugitive Dust					1.8000e-004	0.0000	1.8000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2386
Total	**0.0331**	**0.3320**	**0.2175**	**3.9000e-004**	**1.8000e-004**	**0.0166**	**0.0168**	**3.0000e-005**	**0.0154**	**0.0155**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2386**

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					
Fugitive Dust					7.0000e-005	0.0000	7.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2385

Total	0.0331	0.3320	0.2175	3.9000e-004	7.0000e-005	0.0166	0.0167	1.0000e-005	0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2385

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**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0102	0.1060	0.0538	1.0000e-004		5.4900e-003	5.4900e-003		5.0500e-003	5.0500e-003	0.0000	8.3577	8.3577	2.7000e-003	0.0000	8.4253
Total	**0.0102**	**0.1060**	**0.0538**	**1.0000e-004**	**0.0452**	**5.4900e-003**	**0.0507**	**0.0248**	**5.0500e-003**	**0.0299**	**0.0000**	**8.3577**	**8.3577**	**2.7000e-003**	**0.0000**	**8.4253**

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					
Fugitive Dust					0.0167	0.0000	0.0167	9.2000e-003	0.0000	9.2000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0102	0.1060	0.0538	1.0000e-004		5.4900e-003	5.4900e-003		5.0500e-003	5.0500e-003	0.0000	8.3577	8.3577	2.7000e-003	0.0000	8.4252
Total	**0.0102**	**0.1060**	**0.0538**	**1.0000e-004**	**0.0167**	**5.4900e-003**	**0.0222**	**9.2000e-003**	**5.0500e-003**	**0.0143**	**0.0000**	**8.3577**	**8.3577**	**2.7000e-003**	**0.0000**	**8.4252**

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**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1055	0.0642	1.2000e-004		5.0900e-003	5.0900e-003		4.6900e-003	4.6900e-003	0.0000	10.4235	10.4235	3.3700e-003	0.0000	10.5078
Total	**9.7200e-003**	**0.1055**	**0.0642**	**1.2000e-004**	**0.0262**	**5.0900e-003**	**0.0313**	**0.0135**	**4.6900e-003**	**0.0182**	**0.0000**	**10.4235**	**10.4235**	**3.3700e-003**	**0.0000**	**10.5078**

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					
Fugitive Dust					9.7100e-003	0.0000	9.7100e-003	4.9900e-003	0.0000	4.9900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1055	0.0642	1.2000e-004		5.0900e-003	5.0900e-003		4.6900e-003	4.6900e-003	0.0000	10.4235	10.4235	3.3700e-003	0.0000	10.5078
Total	**9.7200e-003**	**0.1055**	**0.0642**	**1.2000e-004**	**9.7100e-003**	**5.0900e-003**	**0.0148**	**4.9900e-003**	**4.6900e-003**	**9.6800e-003**	**0.0000**	**10.4235**	**10.4235**	**3.3700e-003**	**0.0000**	**10.5078**

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**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2406	2.1776	1.9123	3.0500e-003		0.1268	0.1268		0.1192	0.1192	0.0000	262.8773	262.8773	0.0641	0.0000	264.4807
Total	**0.2406**	**2.1776**	**1.9123**	**3.0500e-003**		**0.1268**	**0.1268**		**0.1192**	**0.1192**	**0.0000**	**262.8773**	**262.8773**	**0.0641**	**0.0000**	**264.4807**

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					
Off-Road	0.2406	2.1776	1.9123	3.0500e-003		0.1268	0.1268		0.1192	0.1192	0.0000	262.8770	262.8770	0.0641	0.0000	264.4803

Total	0.2406	2.1776	1.9123	3.0500e-003		0.1268	0.1268		0.1192	0.1192	0.0000	262.8770	262.8770	0.0641	0.0000	264.4803

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**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0107	0.1062	0.1105	1.7000e-004		5.8600e-003	5.8600e-003		5.4000e-003	5.4000e-003	0.0000	14.7348	14.7348	4.6300e-003	0.0000	14.8506
Paving	1.9700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0126**	**0.1062**	**0.1105**	**1.7000e-004**		**5.8600e-003**	**5.8600e-003**		**5.4000e-003**	**5.4000e-003**	**0.0000**	**14.7348**	**14.7348**	**4.6300e-003**	**0.0000**	**14.8506**

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					
Off-Road	0.0107	0.1062	0.1105	1.7000e-004		5.8600e-003	5.8600e-003		5.4000e-003	5.4000e-003	0.0000	14.7348	14.7348	4.6300e-003	0.0000	14.8506
Paving	1.9700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0126**	**0.1062**	**0.1105**	**1.7000e-004**		**5.8600e-003**	**5.8600e-003**		**5.4000e-003**	**5.4000e-003**	**0.0000**	**14.7348**	**14.7348**	**4.6300e-003**	**0.0000**	**14.8506**

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					

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

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2705					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1800e-003	0.0152	0.0165	3.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003	0.0000	2.2979	2.2979	1.8000e-004	0.0000	2.3024
Total	**0.2727**	**0.0152**	**0.0165**	**3.0000e-005**		**1.0000e-003**	**1.0000e-003**		**1.0000e-003**	**1.0000e-003**	**0.0000**	**2.2979**	**2.2979**	**1.8000e-004**	**0.0000**	**2.3024**

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	0.2705					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1800e-003	0.0152	0.0165	3.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003	0.0000	2.2979	2.2979	1.8000e-004	0.0000	2.3024
Total	**0.2727**	**0.0152**	**0.0165**	**3.0000e-005**		**1.0000e-003**	**1.0000e-003**		**1.0000e-003**	**1.0000e-003**	**0.0000**	**2.2979**	**2.2979**	**1.8000e-004**	**0.0000**	**2.3024**

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

- Operational modeled separately

Winton - General Office - Unmitigated

Merced County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	25.52	1000sqft	1.60	25,520.00	0
Parking Lot	0.75	Acre	0.75	32,670.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	49
Climate Zone	3			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	610.92	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See assumptions

Construction Phase - See Assumptions

Demolition - See Assumptions

Trips and VMT - See Assumptions

Vehicle Trips - Operational Emissions Modeled Separately

Construction Off-road Equipment Mitigation - See Assumptions

Table Name	Column Name	Default Value	New Value

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	PhaseEndDate	1/11/2021	12/28/2020
tblConstructionPhase	PhaseEndDate	12/28/2020	2/24/2020
tblConstructionPhase	PhaseStartDate	12/29/2020	12/15/2020
tblConstructionPhase	PhaseStartDate	12/15/2020	2/11/2020
tblLandUse	LotAcreage	0.59	1.60
tblProjectCharacteristics	CO2IntensityFactor	641.35	610.92
tblTripsAndVMT	HaulingTripNumber	2.00	0.00
tblTripsAndVMT	VendorTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	22.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	4.00	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	WD_TR	11.03	0.00

2.0 Emissions Summary

- Summary not used

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/28/2020	5	20	
2	Site Preparation	Site Preparation	1/29/2020	1/31/2020	5	3	
3	Grading	Grading	2/1/2020	2/10/2020	5	6	
4	Building Construction	Building Construction	2/11/2020	12/14/2020	5	220	

5	Paving	Paving	2/11/2020	2/24/2020	5	10	
6	Architectural Coating	Architectural Coating	12/15/2020	12/28/2020	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0.75

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 38,280; Non-Residential Outdoor: 12,760; Striped Parking Area:

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

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
Demolition	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.8000e-004	0.0000	1.8000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0677	21.0677	5.4200e-003	0.0000	21.2031
Total	**0.0213**	**0.2095**	**0.1466**	**2.4000e-004**	**1.8000e-004**	**0.0115**	**0.0117**	**3.0000e-005**	**0.0108**	**0.0108**	**0.0000**	**21.0677**	**21.0677**	**5.4200e-003**	**0.0000**	**21.2031**

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					
Fugitive Dust					7.0000e-005	0.0000	7.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0676	21.0676	5.4200e-003	0.0000	21.2030
Total	**0.0213**	**0.2095**	**0.1466**	**2.4000e-004**	**7.0000e-005**	**0.0115**	**0.0116**	**1.0000e-005**	**0.0108**	**0.0108**	**0.0000**	**21.0676**	**21.0676**	**5.4200e-003**	**0.0000**	**21.2030**

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**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4800e-003	0.0299	0.0169	4.0000e-005		1.1700e-003	1.1700e-003		1.0700e-003	1.0700e-003	0.0000	3.2290	3.2290	1.0400e-003	0.0000	3.2551
Total	**2.4800e-003**	**0.0299**	**0.0169**	**4.0000e-005**	**2.3900e-003**	**1.1700e-003**	**3.5600e-003**	**2.6000e-004**	**1.0700e-003**	**1.3300e-003**	**0.0000**	**3.2290**	**3.2290**	**1.0400e-003**	**0.0000**	**3.2551**

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					
Fugitive Dust					8.8000e-004	0.0000	8.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4800e-003	0.0299	0.0169	4.0000e-005		1.1700e-003	1.1700e-003		1.0700e-003	1.0700e-003	0.0000	3.2290	3.2290	1.0400e-003	0.0000	3.2551
Total	**2.4800e-003**	**0.0299**	**0.0169**	**4.0000e-005**	**8.8000e-004**	**1.1700e-003**	**2.0500e-003**	**1.0000e-004**	**1.0700e-003**	**1.1700e-003**	**0.0000**	**3.2290**	**3.2290**	**1.0400e-003**	**0.0000**	**3.2551**

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**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.7700e-003	0.0640	0.0298	6.0000e-005		2.9700e-003	2.9700e-003		2.7300e-003	2.7300e-003	0.0000	5.4333	5.4333	1.7600e-003	0.0000	5.4773
Total	**5.7700e-003**	**0.0640**	**0.0298**	**6.0000e-005**	**0.0197**	**2.9700e-003**	**0.0226**	**0.0101**	**2.7300e-003**	**0.0128**	**0.0000**	**5.4333**	**5.4333**	**1.7600e-003**	**0.0000**	**5.4773**

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					

Fugitive Dust					7.2800e-003	0.0000	7.2800e-003	3.7400e-003	0.0000	3.7400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.7700e-003	0.0640	0.0298	6.0000e-005		2.9700e-003	2.9700e-003		2.7300e-003	2.7300e-003	0.0000	5.4333	5.4333	1.7600e-003	0.0000	5.4773
Total	**5.7700e-003**	**0.0640**	**0.0298**	**6.0000e-005**	**7.2800e-003**	**2.9700e-003**	**0.0103**	**3.7400e-003**	**2.7300e-003**	**6.4700e-003**	**0.0000**	**5.4333**	**5.4333**	**1.7600e-003**	**0.0000**	**5.4773**

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**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2517	1.9177	1.6387	2.7500e-003		0.1043	0.1043		0.1000	0.1000	0.0000	228.4088	228.4088	0.0464	0.0000	229.5678
Total	**0.2517**	**1.9177**	**1.6387**	**2.7500e-003**		**0.1043**	**0.1043**		**0.1000**	**0.1000**	**0.0000**	**228.4088**	**228.4088**	**0.0464**	**0.0000**	**229.5678**

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					
Off-Road	0.2517	1.9177	1.6387	2.7500e-003		0.1043	0.1043		0.1000	0.1000	0.0000	228.4086	228.4086	0.0464	0.0000	229.5675
Total	**0.2517**	**1.9177**	**1.6387**	**2.7500e-003**		**0.1043**	**0.1043**		**0.1000**	**0.1000**	**0.0000**	**228.4086**	**228.4086**	**0.0464**	**0.0000**	**229.5675**

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**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.7700e-003	0.0579	0.0590	9.0000e-005		3.2800e-003	3.2800e-003		3.0300e-003	3.0300e-003	0.0000	7.7529	7.7529	2.4600e-003	0.0000	7.8143
Paving	9.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7500e-003**	**0.0579**	**0.0590**	**9.0000e-005**		**3.2800e-003**	**3.2800e-003**		**3.0300e-003**	**3.0300e-003**	**0.0000**	**7.7529**	**7.7529**	**2.4600e-003**	**0.0000**	**7.8143**

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					
Off-Road	5.7700e-003	0.0579	0.0590	9.0000e-005		3.2800e-003	3.2800e-003		3.0300e-003	3.0300e-003	0.0000	7.7529	7.7529	2.4600e-003	0.0000	7.8143
Paving	9.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7500e-003**	**0.0579**	**0.0590**	**9.0000e-005**		**3.2800e-003**	**3.2800e-003**		**3.0300e-003**	**3.0300e-003**	**0.0000**	**7.7529**	**7.7529**	**2.4600e-003**	**0.0000**	**7.8143**

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**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1842					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2100e-003	8.4200e-003	9.1600e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791
Total	**0.1855**	**8.4200e-003**	**9.1600e-003**	**1.0000e-005**		**5.5000e-004**	**5.5000e-004**		**5.5000e-004**	**5.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.0000e-004**	**0.0000**	**1.2791**

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	0.1842					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2100e-003	8.4200e-003	9.1600e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791
Total	**0.1855**	**8.4200e-003**	**9.1600e-003**	**1.0000e-005**		**5.5000e-004**	**5.5000e-004**		**5.5000e-004**	**5.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.0000e-004**	**0.0000**	**1.2791**

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

- Operationa modeled Separately

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	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
General Office Building	0.00	0.00	0.00		
Parking Lot	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
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.492060	0.030872	0.155167	0.115051	0.019669	0.004846	0.015607	0.153483	0.002388	0.002252	0.006351	0.001584	0.000670
Parking Lot	0.492060	0.030872	0.155167	0.115051	0.019669	0.004846	0.015607	0.153483	0.002388	0.002252	0.006351	0.001584	0.000670

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	67.6635	67.6635	3.2100e-003	6.6000e-004	67.9419
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	67.6635	67.6635	3.2100e-003	6.6000e-004	67.9419
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	17.7721	17.7721	3.4000e-004	3.3000e-004	17.8777
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	17.7721	17.7721	3.4000e-004	3.3000e-004	17.8777

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					
General Office Building	333036	1.8000e-003	0.0163	0.0137	1.0000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	17.7721	17.7721	3.4000e-004	3.3000e-004	17.8777
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
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**	**17.7721**	**17.7721**	**3.4000e-004**	**3.3000e-004**	**17.8777**

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					
General Office Building	333036	1.8000e-003	0.0163	0.0137	1.0000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	17.7721	17.7721	3.4000e-004	3.3000e-004	17.8777
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
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**	**17.7721**	**17.7721**	**3.4000e-004**	**3.3000e-004**	**17.8777**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	232742	64.4949	3.0600e-003	6.3000e-004	64.7602
Parking Lot	11434.5	3.1686	1.5000e-004	3.0000e-005	3.1816
Total		**67.6635**	**3.2100e-003**	**6.6000e-004**	**67.9419**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	232742	64.4949	3.0600e-003	6.3000e-004	64.7602
Parking Lot	11434.5	3.1686	1.5000e-004	3.0000e-005	3.1816
Total		**67.6635**	**3.2100e-003**	**6.6000e-004**	**67.9419**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1202	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Unmitigated	0.1202	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-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	0.0184					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1018					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Total	**0.1202**	**0.0000**	**2.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

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	0.0184					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1018					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	5.0000e-004
Total	**0.1202**	**0.0000**	**2.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	10.9363	0.1483	3.5800e-003	15.7103
Unmitigated	10.9363	0.1483	3.5800e-003	15.7103

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	4.53577 / 2.77999	10.9363	0.1483	3.5800e-003	15.7103

Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**10.9363**	**0.1483**	**3.5800e-003**	**15.7103**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	4.53577 / 2.77999	10.9363	0.1483	3.5800e-003	15.7103
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**10.9363**	**0.1483**	**3.5800e-003**	**15.7103**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.8170	0.2847	0.0000	11.9339
Unmitigated	4.8170	0.2847	0.0000	11.9339

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	23.73	4.8170	0.2847	0.0000	11.9339
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**4.8170**	**0.2847**	**0.0000**	**11.9339**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	23.73	4.8170	0.2847	0.0000	11.9339
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**4.8170**	**0.2847**	**0.0000**	**11.9339**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Winton - Construction Industrial - Unmitigated

Merced County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	61.87	1000sqft	5.10	61,870.00	0
Parking Lot	2.50	Acre	2.50	108,900.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 49

Climate Zone 3 **Operational Year** 2021

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 610.92 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Demolition - See Assumptions

Trips and VMT - See Assumptions - Modeled outside CalEEMod

Vehicle Trips - Operational Modeled Separately

Construction Off-road Equipment Mitigation - See Assumptions

Table Name	Column Name	Default Value	New Value

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	230.00	214.00
tblConstructionPhase	NumDays	20.00	19.00
tblConstructionPhase	NumDays	20.00	19.00
tblConstructionPhase	NumDays	10.00	9.00
tblConstructionPhase	PhaseEndDate	3/23/2021	12/31/2020
tblConstructionPhase	PhaseEndDate	1/26/2021	12/30/2020
tblConstructionPhase	PhaseEndDate	1/28/2020	1/27/2020
tblConstructionPhase	PhaseEndDate	3/10/2020	3/5/2020
tblConstructionPhase	PhaseEndDate	2/23/2021	4/2/2020
tblConstructionPhase	PhaseEndDate	2/11/2020	2/7/2020
tblConstructionPhase	PhaseStartDate	2/24/2021	12/4/2020
tblConstructionPhase	PhaseStartDate	3/11/2020	3/6/2020
tblConstructionPhase	PhaseStartDate	2/12/2020	2/8/2020
tblConstructionPhase	PhaseStartDate	1/27/2021	3/6/2020
tblConstructionPhase	PhaseStartDate	1/29/2020	1/28/2020
tblGrading	AcresOfGrading	9.50	10.00
tblLandUse	LotAcreage	1.42	5.10
tblProjectCharacteristics	CO2IntensityFactor	641.35	610.92
tblTripsAndVMT	HaulingTripNumber	2.00	0.00
tblTripsAndVMT	VendorTripNumber	28.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	72.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	14.00	0.00
tblVehicleTrips	ST_TR	2.49	0.00
tblVehicleTrips	SU_TR	0.73	0.00
tblVehicleTrips	WD_TR	6.83	0.00

2.0 Emissions Summary

- Summary not used

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/27/2020	5	19	
2	Site Preparation	Site Preparation	1/28/2020	2/7/2020	5	9	
3	Grading	Grading	2/8/2020	3/5/2020	5	19	
4	Building Construction	Building Construction	3/6/2020	12/30/2020	5	214	
5	Paving	Paving	3/6/2020	4/2/2020	5	20	
6	Architectural Coating	Architectural Coating	12/4/2020	12/31/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 2.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 92,805; Non-Residential Outdoor: 30,935; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40

Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

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
Demolition	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Fugitive Dust					1.8000e-004	0.0000	1.8000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0315	0.3154	0.2067	3.7000e-004		0.0158	0.0158		0.0147	0.0147	0.0000	32.2987	32.2987	9.1200e-003	0.0000	32.5266
Total	**0.0315**	**0.3154**	**0.2067**	**3.7000e-004**	**1.8000e-004**	**0.0158**	**0.0159**	**3.0000e-005**	**0.0147**	**0.0147**	**0.0000**	**32.2987**	**32.2987**	**9.1200e-003**	**0.0000**	**32.5266**

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					
Fugitive Dust					7.0000e-005	0.0000	7.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0315	0.3154	0.2067	3.7000e-004		0.0158	0.0158		0.0147	0.0147	0.0000	32.2986	32.2986	9.1200e-003	0.0000	32.5266

Total	0.0315	0.3154	0.2067	3.7000e-004	7.0000e-005	0.0158	0.0158	1.0000e-005	0.0147	0.0147	0.0000	32.2986	32.2986	9.1200e-003	0.0000	32.5266

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**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0813	0.0000	0.0813	0.0447	0.0000	0.0447	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0183	0.1909	0.0968	1.7000e-004		9.8900e-003	9.8900e-003		9.1000e-003	9.1000e-003	0.0000	15.0438	15.0438	4.8700e-003	0.0000	15.1654
Total	**0.0183**	**0.1909**	**0.0968**	**1.7000e-004**	**0.0813**	**9.8900e-003**	**0.0912**	**0.0447**	**9.1000e-003**	**0.0538**	**0.0000**	**15.0438**	**15.0438**	**4.8700e-003**	**0.0000**	**15.1654**

Unmitigated Construction Off-Site

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

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Fugitive Dust					0.0301	0.0000	0.0301	0.0166	0.0000	0.0166	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0183	0.1909	0.0968	1.7000e-004		9.8900e-003	9.8900e-003		9.1000e-003	9.1000e-003	0.0000	15.0438	15.0438	4.8700e-003	0.0000	15.1654
Total	**0.0183**	**0.1909**	**0.0968**	**1.7000e-004**	**0.0301**	**9.8900e-003**	**0.0400**	**0.0166**	**9.1000e-003**	**0.0257**	**0.0000**	**15.0438**	**15.0438**	**4.8700e-003**	**0.0000**	**15.1654**

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	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**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0625	0.0000	0.0625	0.0320	0.0000	0.0320	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0231	0.2507	0.1525	2.8000e-004		0.0121	0.0121		0.0111	0.0111	0.0000	24.7558	24.7558	8.0100e-003	0.0000	24.9560
Total	**0.0231**	**0.2507**	**0.1525**	**2.8000e-004**	**0.0625**	**0.0121**	**0.0746**	**0.0320**	**0.0111**	**0.0432**	**0.0000**	**24.7558**	**24.7558**	**8.0100e-003**	**0.0000**	**24.9560**

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					
Fugitive Dust					0.0232	0.0000	0.0232	0.0119	0.0000	0.0119	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0231	0.2507	0.1525	2.8000e-004		0.0121	0.0121		0.0111	0.0111	0.0000	24.7558	24.7558	8.0100e-003	0.0000	24.9559
Total	**0.0231**	**0.2507**	**0.1525**	**2.8000e-004**	**0.0232**	**0.0121**	**0.0353**	**0.0119**	**0.0111**	**0.0230**	**0.0000**	**24.7558**	**24.7558**	**8.0100e-003**	**0.0000**	**24.9559**

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**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2268	2.0529	1.8028	2.8800e-003		0.1195	0.1195		0.1124	0.1124	0.0000	247.8227	247.8227	0.0605	0.0000	249.3342
Total	**0.2268**	**2.0529**	**1.8028**	**2.8800e-003**		**0.1195**	**0.1195**		**0.1124**	**0.1124**	**0.0000**	**247.8227**	**247.8227**	**0.0605**	**0.0000**	**249.3342**

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					
Off-Road	0.2268	2.0529	1.8028	2.8800e-003		0.1195	0.1195		0.1124	0.1124	0.0000	247.8224	247.8224	0.0605	0.0000	249.3339

Total	**0.2268**	**2.0529**	**1.8028**	**2.8800e-003**		**0.1195**	**0.1195**		**0.1124**	**0.1124**	**0.0000**	**247.8224**	**247.8224**	**0.0605**	**0.0000**	**249.3339**

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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**

3.6 Paving - 2020

<u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0136	0.1407	0.1465	2.3000e-004		7.5300e-003	7.5300e-003		6.9300e-003	6.9300e-003	0.0000	20.0282	20.0282	6.4800e-003	0.0000	20.1902
Paving	3.2800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0169**	**0.1407**	**0.1465**	**2.3000e-004**		**7.5300e-003**	**7.5300e-003**		**6.9300e-003**	**6.9300e-003**	**0.0000**	**20.0282**	**20.0282**	**6.4800e-003**	**0.0000**	**20.1902**

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					
Off-Road	0.0136	0.1407	0.1465	2.3000e-004		7.5300e-003	7.5300e-003		6.9300e-003	6.9300e-003	0.0000	20.0282	20.0282	6.4800e-003	0.0000	20.1901
Paving	3.2800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0169**	**0.1407**	**0.1465**	**2.3000e-004**		**7.5300e-003**	**7.5300e-003**		**6.9300e-003**	**6.9300e-003**	**0.0000**	**20.0282**	**20.0282**	**6.4800e-003**	**0.0000**	**20.1901**

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					

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

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4529					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4200e-003	0.0168	0.0183	3.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	2.5533	2.5533	2.0000e-004	0.0000	2.5582
Total	**0.4553**	**0.0168**	**0.0183**	**3.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.1100e-003**	**1.1100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.0000e-004**	**0.0000**	**2.5582**

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	0.4529					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4200e-003	0.0168	0.0183	3.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	2.5533	2.5533	2.0000e-004	0.0000	2.5582
Total	**0.4553**	**0.0168**	**0.0183**	**3.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.1100e-003**	**1.1100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.0000e-004**	**0.0000**	**2.5582**

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

- Operational Modeled Separately

Air Quality Appendix
C. Modeling Output

b. Mitigated Construction

Modeling Output included in this Appendix:

Winton - Construction Only - Residential - Mitigated
Winton - Construction - Shopping Center - Mitigated
Winton - General Office - Mitigated
Winton - Construction Industrial - Mitigated

Winton - Construction Only - Residential - Mitigated
Merced County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	168.00	Dwelling Unit	50.00	302,400.00	480
Other Asphalt Surfaces	5.00	Acre	5.00	217,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	49
Climate Zone	3			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	610.93	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions - Modeling assumes 1 of 4 average size developments that coud occur using 10% of total buildout.

Land Use - See Assumptions

Construction Phase - See Assumptions

Off-road Equipment - See Assumptions

Off-road Equipment - See Assumptions

Off-road Equipment - See Assumptions

Off-road Equipment - See Assumptions

Off-road Equipment - See Assumptions

Off-road Equipment - See Assumptions

Demolition - See Assumptions

Trips and VMT - Modeled outside of CalEEMod to account for EMFAC2017 and SAFE Rule 1

On-road Fugitive Dust - See Assumptions

Vehicle Trips - Operational emissions modeled seaparately.

Construction Off-road Equipment Mitigation - see assumptions

Architectural Coating - 150

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	100.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
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	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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
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	1,110.00	217.00
tblConstructionPhase	NumDays	70.00	14.00
tblConstructionPhase	NumDays	110.00	22.00
tblConstructionPhase	NumDays	40.00	8.00
tblConstructionPhase	PhaseEndDate	9/2/2025	12/31/2020
tblConstructionPhase	PhaseEndDate	2/4/2025	12/31/2020
tblConstructionPhase	PhaseEndDate	4/7/2020	1/20/2020
tblConstructionPhase	PhaseEndDate	11/3/2020	3/3/2020
tblConstructionPhase	PhaseEndDate	5/20/2025	6/16/2020
tblConstructionPhase	PhaseEndDate	6/2/2020	1/30/2020
tblConstructionPhase	PhaseStartDate	5/21/2025	9/18/2020
tblConstructionPhase	PhaseStartDate	11/4/2020	3/4/2020
tblConstructionPhase	PhaseStartDate	6/3/2020	2/1/2020
tblConstructionPhase	PhaseStartDate	2/5/2025	3/4/2020
tblConstructionPhase	PhaseStartDate	4/8/2020	1/21/2020
tblGrading	AcresOfGrading	55.00	275.00
tblLandUse	LotAcreage	54.55	50.00
tblOnRoadDust	RoadSiltLoading	0.10	0.06
tblOnRoadDust	RoadSiltLoading	0.10	0.06
tblOnRoadDust	RoadSiltLoading	0.10	0.06
tblOnRoadDust	RoadSiltLoading	0.10	0.06
tblOnRoadDust	RoadSiltLoading	0.10	0.06
tblOnRoadDust	RoadSiltLoading	0.10	0.06

tblProjectCharacteristics	CO2IntensityFactor	641.35	610.93
tblTripsAndVMT	HaulingTripNumber	16.00	0.00
tblTripsAndVMT	VendorTripNumber	54.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	152.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	30.00	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	HO_TL	7.50	0.00
tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HW_TL	10.80	0.00
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	9.52	0.00
tblWoodstoves	NumberCatalytic	50.00	49.00
tblWoodstoves	NumberNoncatalytic	50.00	49.00

2.0 Emissions Summary

- Summary not used

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/20/2020	5	14	
2	Site Preparation	Site Preparation	1/21/2020	1/30/2020	5	8	
3	Grading	Grading	2/1/2020	3/3/2020	5	22	

4	Building Construction	Building Construction	3/4/2020	12/31/2020	5	217	
5	Paving	Paving	3/4/2020	6/16/2020	5	75	
6	Architectural Coating	Architectural Coating	9/18/2020	12/31/2020	5	75	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 275

Acres of Paving: 5

Residential Indoor: 612,360; Residential Outdoor: 204,120; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

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

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
Demolition	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7700e-003	0.0000	1.7700e-003	2.7000e-004	0.0000	2.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0232	0.2324	0.1523	2.7000e-004		0.0116	0.0116		0.0108	0.0108	0.0000	23.7990	23.7990	6.7200e-003	0.0000	23.9670
Total	**0.0232**	**0.2324**	**0.1523**	**2.7000e-004**	**1.7700e-003**	**0.0116**	**0.0134**	**2.7000e-004**	**0.0108**	**0.0111**	**0.0000**	**23.7990**	**23.7990**	**6.7200e-003**	**0.0000**	**23.9670**

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					
Fugitive Dust					6.6000e-004	0.0000	6.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2400e-003	0.0140	0.1630	2.7000e-004		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	23.7990	23.7990	6.7200e-003	0.0000	23.9670
Total	**3.2400e-003**	**0.0140**	**0.1630**	**2.7000e-004**	**6.6000e-004**	**4.3000e-004**	**1.0900e-003**	**1.0000e-004**	**4.3000e-004**	**5.3000e-004**	**0.0000**	**23.7990**	**23.7990**	**6.7200e-003**	**0.0000**	**23.9670**

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**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0723	0.0000	0.0723	0.0397	0.0000	0.0397	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0163	0.1697	0.0861	1.5000e-004		8.7900e-003	8.7900e-003		8.0900e-003	8.0900e-003	0.0000	13.3723	13.3723	4.3200e-003	0.0000	13.4804
Total	**0.0163**	**0.1697**	**0.0861**	**1.5000e-004**	**0.0723**	**8.7900e-003**	**0.0811**	**0.0397**	**8.0900e-003**	**0.0478**	**0.0000**	**13.3723**	**13.3723**	**4.3200e-003**	**0.0000**	**13.4804**

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					
Fugitive Dust					0.0268	0.0000	0.0268	0.0147	0.0000	0.0147	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8600e-003	8.0700e-003	0.0835	1.5000e-004		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	13.3723	13.3723	4.3200e-003	0.0000	13.4804
Total	**1.8600e-003**	**8.0700e-003**	**0.0835**	**1.5000e-004**	**0.0268**	**2.5000e-004**	**0.0270**	**0.0147**	**2.5000e-004**	**0.0150**	**0.0000**	**13.3723**	**13.3723**	**4.3200e-003**	**0.0000**	**13.4804**

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**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2121	0.0000	0.2121	0.0522	0.0000	0.0522	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0490	0.5522	0.3515	6.8000e-004		0.0239	0.0239		0.0220	0.0220	0.0000	59.9327	59.9327	0.0194	0.0000	60.4173
Total	**0.0490**	**0.5522**	**0.3515**	**6.8000e-004**	**0.2121**	**0.0239**	**0.2360**	**0.0522**	**0.0220**	**0.0742**	**0.0000**	**59.9327**	**59.9327**	**0.0194**	**0.0000**	**60.4173**

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					

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					0.0786	0.0000	0.0786	0.0193	0.0000	0.0193	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.3800e-003	0.0363	0.3630	6.8000e-004		1.1200e-003	1.1200e-003		1.1200e-003	1.1200e-003	0.0000	59.9327	59.9327	0.0194	0.0000	60.4172
Total	**8.3800e-003**	**0.0363**	**0.3630**	**6.8000e-004**	**0.0786**	**1.1200e-003**	**0.0797**	**0.0193**	**1.1200e-003**	**0.0204**	**0.0000**	**59.9327**	**59.9327**	**0.0194**	**0.0000**	**60.4172**

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**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2300	2.0817	1.8281	2.9200e-003		0.1212	0.1212		0.1140	0.1140	0.0000	251.2968	251.2968	0.0613	0.0000	252.8295
Total	**0.2300**	**2.0817**	**1.8281**	**2.9200e-003**		**0.1212**	**0.1212**		**0.1140**	**0.1140**	**0.0000**	**251.2968**	**251.2968**	**0.0613**	**0.0000**	**252.8295**

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					
Off-Road	0.0679	0.3040	1.9238	2.9200e-003		0.0135	0.0135		0.0135	0.0135	0.0000	251.2965	251.2965	0.0613	0.0000	252.8292
Total	**0.0679**	**0.3040**	**1.9238**	**2.9200e-003**		**0.0135**	**0.0135**		**0.0135**	**0.0135**	**0.0000**	**251.2965**	**251.2965**	**0.0613**	**0.0000**	**252.8292**

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**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0509	0.5275	0.5495	8.5000e-004		0.0282	0.0282		0.0260	0.0260	0.0000	75.1058	75.1058	0.0243	0.0000	75.7131
Paving	6.5500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0574**	**0.5275**	**0.5495**	**8.5000e-004**		**0.0282**	**0.0282**		**0.0260**	**0.0260**	**0.0000**	**75.1058**	**75.1058**	**0.0243**	**0.0000**	**75.7131**

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					
Off-Road	0.0105	0.0456	0.6486	8.5000e-004		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003	0.0000	75.1057	75.1057	0.0243	0.0000	75.7130
Paving	6.5500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0171**	**0.0456**	**0.6486**	**8.5000e-004**		**1.4000e-003**	**1.4000e-003**		**1.4000e-003**	**1.4000e-003**	**0.0000**	**75.1057**	**75.1057**	**0.0243**	**0.0000**	**75.7130**

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**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.9376					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0800e-003	0.0631	0.0687	1.1000e-004		4.1600e-003	4.1600e-003		4.1600e-003	4.1600e-003	0.0000	9.5747	9.5747	7.4000e-004	0.0000	9.5932
Total	**1.9467**	**0.0631**	**0.0687**	**1.1000e-004**		**4.1600e-003**	**4.1600e-003**		**4.1600e-003**	**4.1600e-003**	**0.0000**	**9.5747**	**9.5747**	**7.4000e-004**	**0.0000**	**9.5932**

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	1.9376					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1100e-003	4.8300e-003	0.0687	1.1000e-004		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	9.5747	9.5747	7.4000e-004	0.0000	9.5932
Total	**1.9387**	**4.8300e-003**	**0.0687**	**1.1000e-004**		**1.5000e-004**	**1.5000e-004**		**1.5000e-004**	**1.5000e-004**	**0.0000**	**9.5747**	**9.5747**	**7.4000e-004**	**0.0000**	**9.5932**

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

- Operational Modeled Separately

Winton - Construction - Shopping Center - Mitigated

Merced County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	36.95	1000sqft	3.47	36,950.00	0
Parking Lot	1.50	Acre	1.50	65,340.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	49
Climate Zone	3			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	610.93	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Demolition - See Assumptions

Trips and VMT - Modeled Outside of CalEEMod

On-road Fugitive Dust - See Assumptions

Vehicle Trips - Operational Modeled Separately

Construction Off-road Equipment Mitigation - See Assumptions

Architectural Coating - See Assumptions

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	100.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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
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	227.00
tblConstructionPhase	PhaseEndDate	2/22/2021	12/31/2020
tblConstructionPhase	PhaseEndDate	1/1/2021	12/29/2020
tblConstructionPhase	PhaseEndDate	1/27/2021	3/11/2020
tblConstructionPhase	PhaseStartDate	1/28/2021	12/8/2020
tblConstructionPhase	PhaseStartDate	1/2/2021	2/15/2020
tblLandUse	LotAcreage	0.85	3.47
tblOnRoadDust	RoadSiltLoading	0.10	0.06
tblOnRoadDust	RoadSiltLoading	0.10	0.06
tblOnRoadDust	RoadSiltLoading	0.10	0.06
tblOnRoadDust	RoadSiltLoading	0.10	0.06
tblOnRoadDust	RoadSiltLoading	0.10	0.06
tblOnRoadDust	RoadSiltLoading	0.10	0.06
tblProjectCharacteristics	CO2IntensityFactor	641.35	610.93
tblTripsAndVMT	HaulingTripNumber	2.00	0.00
tblTripsAndVMT	VendorTripNumber	17.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	39.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	44.32	0.00

2.0 Emissions Summary

- summary not used

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/28/2020	5	20	
2	Site Preparation	Site Preparation	1/29/2020	2/4/2020	5	5	
3	Grading	Grading	2/5/2020	2/14/2020	5	8	
4	Building Construction	Building Construction	2/15/2020	12/29/2020	5	227	
5	Paving	Paving	2/15/2020	3/11/2020	5	18	
6	Architectural Coating	Architectural Coating	12/8/2020	12/31/2020	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 1.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 55,425; Non-Residential Outdoor: 18,475; Striped Parking Area:

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Grading	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

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
Demolition	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

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

Fugitive Dust					1.8000e-004	0.0000	1.8000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2386
Total	**0.0331**	**0.3320**	**0.2175**	**3.9000e-004**	**1.8000e-004**	**0.0166**	**0.0168**	**3.0000e-005**	**0.0154**	**0.0155**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2386**

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					
Fugitive Dust					7.0000e-005	0.0000	7.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.7100e-003	0.0681	0.2182	3.9000e-004		3.0600e-003	3.0600e-003		2.8400e-003	2.8400e-003	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2385
Total	**8.7100e-003**	**0.0681**	**0.2182**	**3.9000e-004**	**7.0000e-005**	**3.0600e-003**	**3.1300e-003**	**1.0000e-005**	**2.8400e-003**	**2.8500e-003**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2385**

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**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0102	0.1060	0.0538	1.0000e-004		5.4900e-003	5.4900e-003		5.0500e-003	5.0500e-003	0.0000	8.3577	8.3577	2.7000e-003	0.0000	8.4253
Total	**0.0102**	**0.1060**	**0.0538**	**1.0000e-004**	**0.0452**	**5.4900e-003**	**0.0507**	**0.0248**	**5.0500e-003**	**0.0299**	**0.0000**	**8.3577**	**8.3577**	**2.7000e-003**	**0.0000**	**8.4253**

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					
Fugitive Dust					0.0167	0.0000	0.0167	9.2000e-003	0.0000	9.2000e-003	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	8.3577	8.3577	2.7000e-003	0.0000	8.4252
Total	**1.1600e-003**	**5.0400e-003**	**0.0522**	**1.0000e-004**	**0.0167**	**1.6000e-004**	**0.0169**	**9.2000e-003**	**1.6000e-004**	**9.3600e-003**	**0.0000**	**8.3577**	**8.3577**	**2.7000e-003**	**0.0000**	**8.4252**

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

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1055	0.0642	1.2000e-004		5.0900e-003	5.0900e-003		4.6900e-003	4.6900e-003	0.0000	10.4235	10.4235	3.3700e-003	0.0000	10.5078
Total	**9.7200e-003**	**0.1055**	**0.0642**	**1.2000e-004**	**0.0262**	**5.0900e-003**	**0.0313**	**0.0135**	**4.6900e-003**	**0.0182**	**0.0000**	**10.4235**	**10.4235**	**3.3700e-003**	**0.0000**	**10.5078**

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					
Fugitive Dust					9.7100e-003	0.0000	9.7100e-003	4.9900e-003	0.0000	4.9900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0000e-003	0.0127	0.0691	1.2000e-004		5.2000e-004	5.2000e-004		4.9000e-004	4.9000e-004	0.0000	10.4235	10.4235	3.3700e-003	0.0000	10.5078
Total	**2.0000e-003**	**0.0127**	**0.0691**	**1.2000e-004**	**9.7100e-003**	**5.2000e-004**	**0.0102**	**4.9900e-003**	**4.9000e-004**	**5.4800e-003**	**0.0000**	**10.4235**	**10.4235**	**3.3700e-003**	**0.0000**	**10.5078**

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**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.2406	2.1776	1.9123	3.0500e-003		0.1268	0.1268		0.1192	0.1192	0.0000	262.8773	262.8773	0.0641	0.0000	264.4807
Total	**0.2406**	**2.1776**	**1.9123**	**3.0500e-003**		**0.1268**	**0.1268**		**0.1192**	**0.1192**	**0.0000**	**262.8773**	**262.8773**	**0.0641**	**0.0000**	**264.4807**

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					
Off-Road	0.0711	0.3180	2.0124	3.0500e-003		0.0142	0.0142		0.0142	0.0142	0.0000	262.8770	262.8770	0.0641	0.0000	264.4803
Total	**0.0711**	**0.3180**	**2.0124**	**3.0500e-003**		**0.0142**	**0.0142**		**0.0142**	**0.0142**	**0.0000**	**262.8770**	**262.8770**	**0.0641**	**0.0000**	**264.4803**

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**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0107	0.1062	0.1105	1.7000e-004		5.8600e-003	5.8600e-003		5.4000e-003	5.4000e-003	0.0000	14.7348	14.7348	4.6300e-003	0.0000	14.8506
Paving	1.9700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0126**	**0.1062**	**0.1105**	**1.7000e-004**		**5.8600e-003**	**5.8600e-003**		**5.4000e-003**	**5.4000e-003**	**0.0000**	**14.7348**	**14.7348**	**4.6300e-003**	**0.0000**	**14.8506**

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					
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	14.7348	14.7348	4.6300e-003	0.0000	14.8506
Paving	1.9700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.7400e-003**	**0.0135**	**0.1260**	**1.7000e-004**		**4.6000e-004**	**4.6000e-004**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**14.7348**	**14.7348**	**4.6300e-003**	**0.0000**	**14.8506**

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

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1849					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1800e-003	0.0152	0.0165	3.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003	0.0000	2.2979	2.2979	1.8000e-004	0.0000	2.3024
Total	**0.1871**	**0.0152**	**0.0165**	**3.0000e-005**		**1.0000e-003**	**1.0000e-003**		**1.0000e-003**	**1.0000e-003**	**0.0000**	**2.2979**	**2.2979**	**1.8000e-004**	**0.0000**	**2.3024**

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	0.1849					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	1.8000e-004	0.0000	2.3024
Total	**0.1852**	**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**	**1.8000e-004**	**0.0000**	**2.3024**

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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

- Operational Modeled Separately

Winton - General Office - Mitigated
Merced County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	25.52	1000sqft	1.60	25,520.00	0
Parking Lot	0.75	Acre	0.75	32,670.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	49
Climate Zone	3			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	610.92	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See assumptions

Construction Phase - See Assumptions

Demolition - See Assumptions

Trips and VMT - See Assumptions

Vehicle Trips - Operational Emissions Modeled Separately

Construction Off-road Equipment Mitigation - See Assumptions

Architectural Coating - See Assumptions

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	100.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	PhaseEndDate	1/11/2021	12/28/2020
tblConstructionPhase	PhaseEndDate	12/28/2020	2/24/2020

tblConstructionPhase	PhaseStartDate	12/29/2020	12/15/2020
tblConstructionPhase	PhaseStartDate	12/15/2020	2/11/2020
tblLandUse	LotAcreage	0.59	1.60
tblProjectCharacteristics	CO2IntensityFactor	641.35	610.92
tblTripsAndVMT	HaulingTripNumber	2.00	0.00
tblTripsAndVMT	VendorTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	22.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	4.00	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	WD_TR	11.03	0.00

2.0 Emissions Summary

- Summary not used

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/28/2020	5	20	
2	Site Preparation	Site Preparation	1/29/2020	1/31/2020	5	3	
3	Grading	Grading	2/1/2020	2/10/2020	5	6	
4	Building Construction	Building Construction	2/11/2020	12/14/2020	5	220	
5	Paving	Paving	2/11/2020	2/24/2020	5	10	
6	Architectural Coating	Architectural Coating	12/15/2020	12/28/2020	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0.75

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 38,280; Non-Residential Outdoor: 12,760; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45

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

Demolition	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.8000e-004	0.0000	1.8000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0677	21.0677	5.4200e-003	0.0000	21.2031
Total	**0.0213**	**0.2095**	**0.1466**	**2.4000e-004**	**1.8000e-004**	**0.0115**	**0.0117**	**3.0000e-005**	**0.0108**	**0.0108**	**0.0000**	**21.0677**	**21.0677**	**5.4200e-003**	**0.0000**	**21.2031**

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					
Fugitive Dust					7.0000e-005	0.0000	7.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8100e-003	0.0122	0.1472	2.4000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	21.0676	21.0676	5.4200e-003	0.0000	21.2030
Total	**2.8100e-003**	**0.0122**	**0.1472**	**2.4000e-004**	**7.0000e-005**	**3.7000e-004**	**4.4000e-004**	**1.0000e-005**	**3.7000e-004**	**3.8000e-004**	**0.0000**	**21.0676**	**21.0676**	**5.4200e-003**	**0.0000**	**21.2030**

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**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4800e-003	0.0299	0.0169	4.0000e-005		1.1700e-003	1.1700e-003		1.0700e-003	1.0700e-003	0.0000	3.2290	3.2290	1.0400e-003	0.0000	3.2551
Total	**2.4800e-003**	**0.0299**	**0.0169**	**4.0000e-005**	**2.3900e-003**	**1.1700e-003**	**3.5600e-003**	**2.6000e-004**	**1.0700e-003**	**1.3300e-003**	**0.0000**	**3.2290**	**3.2290**	**1.0400e-003**	**0.0000**	**3.2551**

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					
Fugitive Dust					8.8000e-004	0.0000	8.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-004	1.9600e-003	0.0178	4.0000e-005		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	3.2290	3.2290	1.0400e-003	0.0000	3.2551
Total	**4.5000e-004**	**1.9600e-003**	**0.0178**	**4.0000e-005**	**8.8000e-004**	**6.0000e-005**	**9.4000e-004**	**1.0000e-004**	**6.0000e-005**	**1.6000e-004**	**0.0000**	**3.2290**	**3.2290**	**1.0400e-003**	**0.0000**	**3.2551**

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**

3.4 Grading - 2020

Unmitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.7700e-003	0.0640	0.0298	6.0000e-005		2.9700e-003	2.9700e-003		2.7300e-003	2.7300e-003	0.0000	5.4333	5.4333	1.7600e-003	0.0000	5.4773
Total	**5.7700e-003**	**0.0640**	**0.0298**	**6.0000e-005**	**0.0197**	**2.9700e-003**	**0.0226**	**0.0101**	**2.7300e-003**	**0.0128**	**0.0000**	**5.4333**	**5.4333**	**1.7600e-003**	**0.0000**	**5.4773**

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					
Fugitive Dust					7.2800e-003	0.0000	7.2800e-003	3.7400e-003	0.0000	3.7400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.6000e-004	3.2800e-003	0.0327	6.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	5.4333	5.4333	1.7600e-003	0.0000	5.4773

Total	**7.6000e-004**	**3.2800e-003**	**0.0327**	**6.0000e-005**	**7.2800e-003**	**1.0000e-004**	**7.3800e-003**	**3.7400e-003**	**1.0000e-004**	**3.8400e-003**	**0.0000**	**5.4333**	**5.4333**	**1.7600e-003**	**0.0000**	**5.4773**

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**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2517	1.9177	1.6387	2.7500e-003		0.1043	0.1043		0.1000	0.1000	0.0000	228.4088	228.4088	0.0464	0.0000	229.5678
Total	**0.2517**	**1.9177**	**1.6387**	**2.7500e-003**		**0.1043**	**0.1043**		**0.1000**	**0.1000**	**0.0000**	**228.4088**	**228.4088**	**0.0464**	**0.0000**	**229.5678**

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					
Off-Road	0.1347	0.6130	1.7321	2.7500e-003		0.0316	0.0316		0.0316	0.0316	0.0000	228.4086	228.4086	0.0464	0.0000	229.5675
Total	**0.1347**	**0.6130**	**1.7321**	**2.7500e-003**		**0.0316**	**0.0316**		**0.0316**	**0.0316**	**0.0000**	**228.4086**	**228.4086**	**0.0464**	**0.0000**	**229.5675**

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**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.7700e-003	0.0579	0.0590	9.0000e-005		3.2800e-003	3.2800e-003		3.0300e-003	3.0300e-003	0.0000	7.7529	7.7529	2.4600e-003	0.0000	7.8143
Paving	9.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7500e-003**	**0.0579**	**0.0590**	**9.0000e-005**		**3.2800e-003**	**3.2800e-003**		**3.0300e-003**	**3.0300e-003**	**0.0000**	**7.7529**	**7.7529**	**2.4600e-003**	**0.0000**	**7.8143**

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					
Off-Road	1.3500e-003	6.4000e-003	0.0664	9.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	7.7529	7.7529	2.4600e-003	0.0000	7.8143
Paving	9.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.3300e-003**	**6.4000e-003**	**0.0664**	**9.0000e-005**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**	**0.0000**	**7.7529**	**7.7529**	**2.4600e-003**	**0.0000**	**7.8143**

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**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1251					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2100e-003	8.4200e-003	9.1600e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791
Total	**0.1263**	**8.4200e-003**	**9.1600e-003**	**1.0000e-005**		**5.5000e-004**	**5.5000e-004**		**5.5000e-004**	**5.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.0000e-004**	**0.0000**	**1.2791**

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	0.1251					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	1.5000e-004	6.4000e-004	9.1600e-003	1.0000e-005		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791
Total	**0.1253**	**6.4000e-004**	**9.1600e-003**	**1.0000e-005**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**1.2766**	**1.2766**	**1.0000e-004**	**0.0000**	**1.2791**

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

- Operational Modeled Separately

Winton - Construction Industrial - Mitigated

Merced County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	61.87	1000sqft	5.10	61,870.00	0
Parking Lot	2.50	Acre	2.50	108,900.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	49
Climate Zone	3			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	610.92	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Demolition - See Assumptions

Trips and VMT - See Assumptions - Modeled outside CalEEMod

Vehicle Trips - Operational Modeled Separately

Construction Off-road Equipment Mitigation - See Assumptions

Architectural Coating - See Assumptions

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	100.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
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	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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
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	214.00
tblConstructionPhase	NumDays	20.00	19.00

tblConstructionPhase	NumDays	20.00	19.00
tblConstructionPhase	NumDays	10.00	9.00
tblConstructionPhase	PhaseEndDate	3/23/2021	12/31/2020
tblConstructionPhase	PhaseEndDate	1/26/2021	12/30/2020
tblConstructionPhase	PhaseEndDate	1/28/2020	1/27/2020
tblConstructionPhase	PhaseEndDate	3/10/2020	3/5/2020
tblConstructionPhase	PhaseEndDate	2/23/2021	4/2/2020
tblConstructionPhase	PhaseEndDate	2/11/2020	2/7/2020
tblConstructionPhase	PhaseStartDate	2/24/2021	12/4/2020
tblConstructionPhase	PhaseStartDate	3/11/2020	3/6/2020
tblConstructionPhase	PhaseStartDate	2/12/2020	2/8/2020
tblConstructionPhase	PhaseStartDate	1/27/2021	3/6/2020
tblConstructionPhase	PhaseStartDate	1/29/2020	1/28/2020
tblGrading	AcresOfGrading	9.50	10.00
tblLandUse	LotAcreage	1.42	5.10
tblProjectCharacteristics	CO2IntensityFactor	641.35	610.92
tblTripsAndVMT	HaulingTripNumber	2.00	0.00
tblTripsAndVMT	VendorTripNumber	28.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	72.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	14.00	0.00
tblVehicleTrips	ST_TR	2.49	0.00
tblVehicleTrips	SU_TR	0.73	0.00
tblVehicleTrips	WD_TR	6.83	0.00

2.0 Emissions Summary

- Summary Not Used

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/27/2020	5	19	
2	Site Preparation	Site Preparation	1/28/2020	2/7/2020	5	9	
3	Grading	Grading	2/8/2020	3/5/2020	5	19	
4	Building Construction	Building Construction	3/6/2020	12/30/2020	5	214	
5	Paving	Paving	3/6/2020	4/2/2020	5	20	
6	Architectural Coating	Architectural Coating	12/4/2020	12/31/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 2.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 92,805; Non-Residential Outdoor: 30,935; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37

Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

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
Demolition	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Fugitive Dust					1.8000e-004	0.0000	1.8000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0315	0.3154	0.2067	3.7000e-004		0.0158	0.0158		0.0147	0.0147	0.0000	32.2987	32.2987	9.1200e-003	0.0000	32.5266
Total	**0.0315**	**0.3154**	**0.2067**	**3.7000e-004**	**1.8000e-004**	**0.0158**	**0.0159**	**3.0000e-005**	**0.0147**	**0.0147**	**0.0000**	**32.2987**	**32.2987**	**9.1200e-003**	**0.0000**	**32.5266**

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					
Fugitive Dust					7.0000e-005	0.0000	7.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3900e-003	0.0190	0.2212	3.7000e-004		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	32.2986	32.2986	9.1200e-003	0.0000	32.5266

Total	**4.3900e-003**	**0.0190**	**0.2212**	**3.7000e-004**	**7.0000e-005**	**5.9000e-004**	**6.6000e-004**	**1.0000e-005**	**5.9000e-004**	**6.0000e-004**	**0.0000**	**32.2986**	**32.2986**	**9.1200e-003**	**0.0000**	**32.5266**

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**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0813	0.0000	0.0813	0.0447	0.0000	0.0447	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0183	0.1909	0.0968	1.7000e-004		9.8900e-003	9.8900e-003		9.1000e-003	9.1000e-003	0.0000	15.0438	15.0438	4.8700e-003	0.0000	15.1654
Total	**0.0183**	**0.1909**	**0.0968**	**1.7000e-004**	**0.0813**	**9.8900e-003**	**0.0912**	**0.0447**	**9.1000e-003**	**0.0538**	**0.0000**	**15.0438**	**15.0438**	**4.8700e-003**	**0.0000**	**15.1654**

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					
Fugitive Dust					0.0301	0.0000	0.0301	0.0166	0.0000	0.0166	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1000e-003	9.0800e-003	0.0939	1.7000e-004		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	15.0438	15.0438	4.8700e-003	0.0000	15.1654
Total	**2.1000e-003**	**9.0800e-003**	**0.0939**	**1.7000e-004**	**0.0301**	**2.8000e-004**	**0.0304**	**0.0166**	**2.8000e-004**	**0.0168**	**0.0000**	**15.0438**	**15.0438**	**4.8700e-003**	**0.0000**	**15.1654**

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**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0625	0.0000	0.0625	0.0320	0.0000	0.0320	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0231	0.2507	0.1525	2.8000e-004		0.0121	0.0121		0.0111	0.0111	0.0000	24.7558	24.7558	8.0100e-003	0.0000	24.9560
Total	**0.0231**	**0.2507**	**0.1525**	**2.8000e-004**	**0.0625**	**0.0121**	**0.0746**	**0.0320**	**0.0111**	**0.0432**	**0.0000**	**24.7558**	**24.7558**	**8.0100e-003**	**0.0000**	**24.9560**

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					
Fugitive Dust					0.0232	0.0000	0.0232	0.0119	0.0000	0.0119	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4500e-003	0.0150	0.1687	2.8000e-004		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	24.7558	24.7558	8.0100e-003	0.0000	24.9559
Total	**3.4500e-003**	**0.0150**	**0.1687**	**2.8000e-004**	**0.0232**	**4.6000e-004**	**0.0236**	**0.0119**	**4.6000e-004**	**0.0123**	**0.0000**	**24.7558**	**24.7558**	**8.0100e-003**	**0.0000**	**24.9559**

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**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2268	2.0529	1.8028	2.8800e-003		0.1195	0.1195		0.1124	0.1124	0.0000	247.8227	247.8227	0.0605	0.0000	249.3342
Total	**0.2268**	**2.0529**	**1.8028**	**2.8800e-003**		**0.1195**	**0.1195**		**0.1124**	**0.1124**	**0.0000**	**247.8227**	**247.8227**	**0.0605**	**0.0000**	**249.3342**

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					
Off-Road	0.0670	0.2998	1.8972	2.8800e-003		0.0134	0.0134		0.0134	0.0134	0.0000	247.8224	247.8224	0.0605	0.0000	249.3339

Total	**0.0670**	**0.2998**	**1.8972**	**2.8800e-003**		**0.0134**	**0.0134**		**0.0134**	**0.0134**	**0.0000**	**247.8224**	**247.8224**	**0.0605**	**0.0000**	**249.3339**

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**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0136	0.1407	0.1465	2.3000e-004		7.5300e-003	7.5300e-003		6.9300e-003	6.9300e-003	0.0000	20.0282	20.0282	6.4800e-003	0.0000	20.1902
Paving	3.2800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0169**	**0.1407**	**0.1465**	**2.3000e-004**		**7.5300e-003**	**7.5300e-003**		**6.9300e-003**	**6.9300e-003**	**0.0000**	**20.0282**	**20.0282**	**6.4800e-003**	**0.0000**	**20.1902**

Unmitigated Construction Off-Site

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

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	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	20.0282	20.0282	6.4800e-003	0.0000	20.1901
Paving	3.2800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.0800e-003**	**0.0122**	**0.1730**	**2.3000e-004**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**20.0282**	**20.0282**	**6.4800e-003**	**0.0000**	**20.1901**

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	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**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3095					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4200e-003	0.0168	0.0183	3.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	2.5533	2.5533	2.0000e-004	0.0000	2.5582
Total	**0.3119**	**0.0168**	**0.0183**	**3.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.1100e-003**	**1.1100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.0000e-004**	**0.0000**	**2.5582**

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	0.3095					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	2.0000e-004	0.0000	2.5582
Total	**0.3098**	**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**	**2.0000e-004**	**0.0000**	**2.5582**

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

- Operations Modeled Separately

Air Quality Appendix
C. Modeling Output

c. Unmitigated Operational

Modeling Output included in this Appendix:

Winton - Operational

Winton - Operational

Merced County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	255.20	1000sqft	16.01	255,200.00	0
Industrial Park	618.65	1000sqft	50.95	618,650.00	0
Apartments Mid Rise	29.00	Dwelling Unit	2.34	29,000.00	83
Single Family Housing	1,647.00	Dwelling Unit	488.00	2,964,600.00	4710
Strip Mall	369.00	1000sqft	35.00	369,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	49
Climate Zone	3			**Operational Year**	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	255.12	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - Construction modeled separately

Off-road Equipment - See assumptions

Vehicle Trips - See Assumptions

Road Dust - see assumptions

Energy Use - See Assumptions

Water And Wastewater - See Assumptions

Solid Waste - See Assumptions

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	700.71	651.66
tblEnergyUse	T24E	2.62	1.83
tblEnergyUse	T24E	2.62	1.83
tblEnergyUse	T24E	995.93	926.22
tblEnergyUse	T24E	2.14	1.50
tblEnergyUse	T24NG	8,454.86	7,863.02
tblEnergyUse	T24NG	12.77	8.94
tblEnergyUse	T24NG	12.77	0.89
tblEnergyUse	T24NG	22,422.24	20,852.68
tblEnergyUse	T24NG	8.62	6.03
tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05

tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LHD1	8.2190e-003	0.02
tblFleetMix	LHD1	8.2190e-003	0.02
tblFleetMix	LHD1	8.2190e-003	0.02
tblFleetMix	LHD1	8.2190e-003	0.02
tblFleetMix	LHD1	8.2190e-003	0.02
tblFleetMix	LHD2	3.1010e-003	4.6722e-003
tblFleetMix	LHD2	3.1010e-003	4.6722e-003
tblFleetMix	LHD2	3.1010e-003	4.6722e-003
tblFleetMix	LHD2	3.1010e-003	4.6722e-003
tblFleetMix	LHD2	3.1010e-003	4.6722e-003
tblFleetMix	MCY	5.3750e-003	5.5273e-003
tblFleetMix	MCY	5.3750e-003	5.5273e-003
tblFleetMix	MCY	5.3750e-003	5.5273e-003
tblFleetMix	MCY	5.3750e-003	5.5273e-003
tblFleetMix	MCY	5.3750e-003	5.5273e-003
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MH	3.9400e-004	5.3924e-004
tblFleetMix	MH	3.9400e-004	5.3924e-004
tblFleetMix	MH	3.9400e-004	5.3924e-004
tblFleetMix	MH	3.9400e-004	5.3924e-004
tblFleetMix	MH	3.9400e-004	5.3924e-004

tblFleetMix	MHD	0.01	0.02
tblFleetMix	MHD	0.01	0.02
tblFleetMix	MHD	0.01	0.02
tblFleetMix	MHD	0.01	0.02
tblFleetMix	MHD	0.01	0.02
tblFleetMix	OBUS	2.3180e-003	1.6854e-003
tblFleetMix	OBUS	2.3180e-003	1.6854e-003
tblFleetMix	OBUS	2.3180e-003	1.6854e-003
tblFleetMix	OBUS	2.3180e-003	1.6854e-003
tblFleetMix	OBUS	2.3180e-003	1.6854e-003
tblFleetMix	SBUS	1.1980e-003	1.8629e-003
tblFleetMix	SBUS	1.1980e-003	1.8629e-003
tblFleetMix	SBUS	1.1980e-003	1.8629e-003
tblFleetMix	SBUS	1.1980e-003	1.8629e-003
tblFleetMix	SBUS	1.1980e-003	1.8629e-003
tblFleetMix	UBUS	1.4170e-003	1.4971e-003
tblFleetMix	UBUS	1.4170e-003	1.4971e-003
tblFleetMix	UBUS	1.4170e-003	1.4971e-003
tblFleetMix	UBUS	1.4170e-003	1.4971e-003
tblFleetMix	UBUS	1.4170e-003	1.4971e-003
tblLandUse	LotAcreage	5.86	16.01
tblLandUse	LotAcreage	14.20	50.95
tblLandUse	LotAcreage	0.76	2.34
tblLandUse	LotAcreage	534.74	488.00
tblLandUse	LotAcreage	8.47	35.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	255.12
tblSolidWaste	SolidWasteGenerationRate	13.34	5.60
tblSolidWaste	SolidWasteGenerationRate	237.34	90.19
tblSolidWaste	SolidWasteGenerationRate	767.13	291.51

tblSolidWaste	SolidWasteGenerationRate	1,695.60	712.15
tblSolidWaste	SolidWasteGenerationRate	387.45	147.42
tblVehicleEF	HHD	2.26	0.02
tblVehicleEF	HHD	5.9230e-003	2.2335e-003
tblVehicleEF	HHD	0.06	3.1623e-008
tblVehicleEF	HHD	1.83	7.50
tblVehicleEF	HHD	0.50	0.21
tblVehicleEF	HHD	0.45	5.7889e-004
tblVehicleEF	HHD	5,420.44	1,007.75
tblVehicleEF	HHD	1,442.40	1,040.69
tblVehicleEF	HHD	1.35	4.2460e-003
tblVehicleEF	HHD	15.17	6.02
tblVehicleEF	HHD	1.35	2.16
tblVehicleEF	HHD	20.70	2.24
tblVehicleEF	HHD	1.8290e-003	2.1960e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.3490e-003	0.03
tblVehicleEF	HHD	1.4000e-005	4.9798e-008
tblVehicleEF	HHD	1.7500e-003	2.1010e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9730e-003	8.9822e-003
tblVehicleEF	HHD	5.1170e-003	0.02
tblVehicleEF	HHD	1.3000e-005	4.5787e-008
tblVehicleEF	HHD	1.9000e-005	1.4810e-007
tblVehicleEF	HHD	6.3800e-004	4.5841e-006
tblVehicleEF	HHD	0.49	0.51
tblVehicleEF	HHD	1.0000e-005	7.4487e-008
tblVehicleEF	HHD	0.08	0.02
tblVehicleEF	HHD	4.9000e-005	2.2086e-005

tblVehicleEF	HHD	7.7960e-003	1.6387e-007
tblVehicleEF	HHD	0.05	9.5175e-003
tblVehicleEF	HHD	0.01	9.8230e-003
tblVehicleEF	HHD	2.1000e-005	4.2018e-008
tblVehicleEF	HHD	1.9000e-005	1.4810e-007
tblVehicleEF	HHD	6.3800e-004	4.5841e-006
tblVehicleEF	HHD	0.56	0.58
tblVehicleEF	HHD	1.0000e-005	7.4487e-008
tblVehicleEF	HHD	0.09	0.02
tblVehicleEF	HHD	4.9000e-005	2.2086e-005
tblVehicleEF	HHD	8.5360e-003	1.7942e-007
tblVehicleEF	HHD	2.13	0.03
tblVehicleEF	HHD	5.9290e-003	2.2337e-003
tblVehicleEF	HHD	0.05	2.9753e-008
tblVehicleEF	HHD	1.33	7.41
tblVehicleEF	HHD	0.50	0.21
tblVehicleEF	HHD	0.41	5.3672e-004
tblVehicleEF	HHD	5,742.47	994.62
tblVehicleEF	HHD	1,442.40	1,040.69
tblVehicleEF	HHD	1.35	4.1791e-003
tblVehicleEF	HHD	15.66	5.72
tblVehicleEF	HHD	1.29	2.06
tblVehicleEF	HHD	20.70	2.24
tblVehicleEF	HHD	1.5420e-003	1.9497e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.3490e-003	0.03
tblVehicleEF	HHD	1.4000e-005	4.9798e-008
tblVehicleEF	HHD	1.4750e-003	1.8653e-003
tblVehicleEF	HHD	0.03	0.03

tblVehicleEF	HHD	8.9730e-003	8.9822e-003
tblVehicleEF	HHD	5.1170e-003	0.02
tblVehicleEF	HHD	1.3000e-005	4.5787e-008
tblVehicleEF	HHD	4.5000e-005	3.4824e-007
tblVehicleEF	HHD	7.0500e-004	5.2872e-006
tblVehicleEF	HHD	0.46	0.54
tblVehicleEF	HHD	1.9000e-005	1.4891e-007
tblVehicleEF	HHD	0.08	0.02
tblVehicleEF	HHD	4.9000e-005	2.1756e-005
tblVehicleEF	HHD	7.3640e-003	1.5480e-007
tblVehicleEF	HHD	0.05	9.3934e-003
tblVehicleEF	HHD	0.01	9.8230e-003
tblVehicleEF	HHD	2.0000e-005	4.1356e-008
tblVehicleEF	HHD	4.5000e-005	3.4824e-007
tblVehicleEF	HHD	7.0500e-004	5.2872e-006
tblVehicleEF	HHD	0.53	0.61
tblVehicleEF	HHD	1.9000e-005	1.4891e-007
tblVehicleEF	HHD	0.09	0.02
tblVehicleEF	HHD	4.9000e-005	2.1756e-005
tblVehicleEF	HHD	8.0630e-003	1.6948e-007
tblVehicleEF	HHD	2.44	0.02
tblVehicleEF	HHD	5.9160e-003	2.2333e-003
tblVehicleEF	HHD	0.06	3.3796e-008
tblVehicleEF	HHD	2.52	7.64
tblVehicleEF	HHD	0.50	0.21
tblVehicleEF	HHD	0.48	6.3038e-004
tblVehicleEF	HHD	4,975.72	1,025.89
tblVehicleEF	HHD	1,442.40	1,040.69
tblVehicleEF	HHD	1.35	4.3277e-003
tblVehicleEF	HHD	14.50	6.43

tblVehicleEF	HHD	1.38	2.20
tblVehicleEF	HHD	20.70	2.24
tblVehicleEF	HHD	2.2260e-003	2.5360e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.3490e-003	0.03
tblVehicleEF	HHD	1.4000e-005	4.9798e-008
tblVehicleEF	HHD	2.1290e-003	2.4263e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9730e-003	8.9822e-003
tblVehicleEF	HHD	5.1170e-003	0.02
tblVehicleEF	HHD	1.3000e-005	4.5787e-008
tblVehicleEF	HHD	7.0000e-006	5.3432e-008
tblVehicleEF	HHD	6.3500e-004	4.5473e-006
tblVehicleEF	HHD	0.53	0.47
tblVehicleEF	HHD	5.0000e-006	3.4017e-008
tblVehicleEF	HHD	0.08	0.02
tblVehicleEF	HHD	5.5000e-005	2.4707e-005
tblVehicleEF	HHD	8.2950e-003	1.7435e-007
tblVehicleEF	HHD	0.05	9.6888e-003
tblVehicleEF	HHD	0.01	9.8230e-003
tblVehicleEF	HHD	2.1000e-005	4.2826e-008
tblVehicleEF	HHD	7.0000e-006	5.3432e-008
tblVehicleEF	HHD	6.3500e-004	4.5473e-006
tblVehicleEF	HHD	0.61	0.53
tblVehicleEF	HHD	5.0000e-006	3.4017e-008
tblVehicleEF	HHD	0.09	0.02
tblVehicleEF	HHD	5.5000e-005	2.4707e-005
tblVehicleEF	HHD	9.0820e-003	1.9090e-007
tblVehicleEF	LDA	1.6980e-003	8.9212e-004

tblVehicleEF	LDA	1.2810e-003	0.02
tblVehicleEF	LDA	0.31	0.42
tblVehicleEF	LDA	0.47	1.54
tblVehicleEF	LDA	178.24	200.23
tblVehicleEF	LDA	38.17	39.46
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.12
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	9.4600e-004	8.0824e-004
tblVehicleEF	LDA	1.4000e-003	1.0414e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	8.7000e-004	7.4372e-004
tblVehicleEF	LDA	1.2880e-003	9.5751e-004
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.2700e-003	2.7955e-003
tblVehicleEF	LDA	0.02	0.17
tblVehicleEF	LDA	0.02	0.09
tblVehicleEF	LDA	1.7830e-003	1.9806e-003
tblVehicleEF	LDA	3.8900e-004	3.9045e-004
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tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	6.2060e-003	4.0608e-003
tblVehicleEF	LDA	0.02	0.17
tblVehicleEF	LDA	0.02	0.10
tblVehicleEF	LDA	1.9530e-003	1.0382e-003

tblVehicleEF	LDA	1.0560e-003	0.02
tblVehicleEF	LDA	0.38	0.52
tblVehicleEF	LDA	0.39	1.29
tblVehicleEF	LDA	195.64	219.28
tblVehicleEF	LDA	38.17	39.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.11
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	9.4600e-004	8.0824e-004
tblVehicleEF	LDA	1.4000e-003	1.0414e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	8.7000e-004	7.4372e-004
tblVehicleEF	LDA	1.2880e-003	9.5751e-004
tblVehicleEF	LDA	0.05	0.08
tblVehicleEF	LDA	0.06	0.07
tblVehicleEF	LDA	0.03	0.05
tblVehicleEF	LDA	4.9000e-003	3.2008e-003
tblVehicleEF	LDA	0.02	0.17
tblVehicleEF	LDA	0.01	0.08
tblVehicleEF	LDA	1.9580e-003	2.1692e-003
tblVehicleEF	LDA	3.8800e-004	3.8614e-004
tblVehicleEF	LDA	0.05	0.08
tblVehicleEF	LDA	0.06	0.07
tblVehicleEF	LDA	0.03	0.05
tblVehicleEF	LDA	7.1260e-003	4.6534e-003
tblVehicleEF	LDA	0.02	0.17
tblVehicleEF	LDA	0.02	0.09
tblVehicleEF	LDA	1.5960e-003	8.2682e-004

tblVehicleEF	LDA	1.5000e-003	0.03
tblVehicleEF	LDA	0.28	0.39
tblVehicleEF	LDA	0.57	1.87
tblVehicleEF	LDA	172.00	193.41
tblVehicleEF	LDA	38.17	40.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.13
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	8.0000e-003	8.0000e-003
tblVehicleEF	LDA	9.4600e-004	8.0824e-004
tblVehicleEF	LDA	1.4000e-003	1.0414e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	2.0000e-003	2.0000e-003
tblVehicleEF	LDA	8.7000e-004	7.4372e-004
tblVehicleEF	LDA	1.2880e-003	9.5751e-004
tblVehicleEF	LDA	6.6130e-003	0.01
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	5.6950e-003	9.6746e-003
tblVehicleEF	LDA	4.0170e-003	2.6328e-003
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.02	0.11
tblVehicleEF	LDA	1.7200e-003	1.9131e-003
tblVehicleEF	LDA	3.9100e-004	3.9602e-004
tblVehicleEF	LDA	6.6130e-003	0.01
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	5.6950e-003	9.6746e-003
tblVehicleEF	LDA	5.8370e-003	3.8229e-003
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.02	0.12
tblVehicleEF	LDT1	3.0530e-003	1.4305e-003

tblVehicleEF	LDT1	3.6040e-003	0.03
tblVehicleEF	LDT1	0.45	0.51
tblVehicleEF	LDT1	0.90	1.66
tblVehicleEF	LDT1	229.29	239.80
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tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.04	0.14
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	1.1950e-003	9.2367e-004
tblVehicleEF	LDT1	1.7740e-003	1.1911e-003
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	1.0990e-003	8.4933e-004
tblVehicleEF	LDT1	1.6310e-003	1.0952e-003
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.04	0.05
tblVehicleEF	LDT1	7.5680e-003	5.2152e-003
tblVehicleEF	LDT1	0.06	0.34
tblVehicleEF	LDT1	0.05	0.13
tblVehicleEF	LDT1	2.2960e-003	2.3730e-003
tblVehicleEF	LDT1	5.1600e-004	4.7597e-004
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.04	0.05
tblVehicleEF	LDT1	0.01	7.6236e-003
tblVehicleEF	LDT1	0.06	0.34
tblVehicleEF	LDT1	0.05	0.14
tblVehicleEF	LDT1	3.4960e-003	1.6558e-003

tblVehicleEF	LDT1	2.9720e-003	0.03
tblVehicleEF	LDT1	0.56	0.63
tblVehicleEF	LDT1	0.74	1.39
tblVehicleEF	LDT1	251.22	259.39
tblVehicleEF	LDT1	50.14	47.61
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.04	0.13
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	1.1950e-003	9.2367e-004
tblVehicleEF	LDT1	1.7740e-003	1.1911e-003
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	1.0990e-003	8.4933e-004
tblVehicleEF	LDT1	1.6310e-003	1.0952e-003
tblVehicleEF	LDT1	0.15	0.16
tblVehicleEF	LDT1	0.14	0.11
tblVehicleEF	LDT1	0.09	0.10
tblVehicleEF	LDT1	8.6640e-003	5.9655e-003
tblVehicleEF	LDT1	0.06	0.33
tblVehicleEF	LDT1	0.04	0.11
tblVehicleEF	LDT1	2.5170e-003	2.5669e-003
tblVehicleEF	LDT1	5.1300e-004	4.7114e-004
tblVehicleEF	LDT1	0.15	0.16
tblVehicleEF	LDT1	0.14	0.11
tblVehicleEF	LDT1	0.09	0.10
tblVehicleEF	LDT1	0.01	8.7207e-003
tblVehicleEF	LDT1	0.06	0.33
tblVehicleEF	LDT1	0.04	0.12
tblVehicleEF	LDT1	2.8750e-003	1.3289e-003

tblVehicleEF	LDT1	4.2230e-003	0.03
tblVehicleEF	LDT1	0.42	0.47
tblVehicleEF	LDT1	1.09	2.02
tblVehicleEF	LDT1	221.43	232.79
tblVehicleEF	LDT1	50.14	48.72
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.05	0.16
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	8.0000e-003	8.0000e-003
tblVehicleEF	LDT1	1.1950e-003	9.2367e-004
tblVehicleEF	LDT1	1.7740e-003	1.1911e-003
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	2.0000e-003	2.0000e-003
tblVehicleEF	LDT1	1.0990e-003	8.4933e-004
tblVehicleEF	LDT1	1.6310e-003	1.0952e-003
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	7.1250e-003	4.9117e-003
tblVehicleEF	LDT1	0.07	0.41
tblVehicleEF	LDT1	0.06	0.15
tblVehicleEF	LDT1	2.2170e-003	2.3037e-003
tblVehicleEF	LDT1	5.1900e-004	4.8216e-004
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.01	7.1799e-003
tblVehicleEF	LDT1	0.07	0.41
tblVehicleEF	LDT1	0.06	0.16
tblVehicleEF	LDT2	2.7600e-003	1.5566e-003

tblVehicleEF	LDT2	2.4660e-003	0.03
tblVehicleEF	LDT2	0.47	0.55
tblVehicleEF	LDT2	0.75	2.06
tblVehicleEF	LDT2	260.94	242.47
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tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.04	0.15
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	1.1130e-003	9.1155e-004
tblVehicleEF	LDT2	1.6240e-003	1.0959e-003
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	1.0240e-003	8.3969e-004
tblVehicleEF	LDT2	1.4940e-003	1.0077e-003
tblVehicleEF	LDT2	0.04	0.07
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	6.8660e-003	5.6516e-003
tblVehicleEF	LDT2	0.04	0.31
tblVehicleEF	LDT2	0.03	0.15
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tblVehicleEF	LDT2	5.7500e-004	4.8454e-004
tblVehicleEF	LDT2	0.04	0.07
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.01	8.2053e-003
tblVehicleEF	LDT2	0.04	0.31
tblVehicleEF	LDT2	0.04	0.16
tblVehicleEF	LDT2	3.1650e-003	1.8038e-003

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tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.04	0.14
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	1.1130e-003	9.1155e-004
tblVehicleEF	LDT2	1.6240e-003	1.0959e-003
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	1.0240e-003	8.3969e-004
tblVehicleEF	LDT2	1.4940e-003	1.0077e-003
tblVehicleEF	LDT2	0.09	0.16
tblVehicleEF	LDT2	0.08	0.10
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tblVehicleEF	LDT2	5.7300e-004	4.7844e-004
tblVehicleEF	LDT2	0.09	0.16
tblVehicleEF	LDT2	0.08	0.10
tblVehicleEF	LDT2	0.06	0.11
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tblVehicleEF	LDT2	0.04	0.30
tblVehicleEF	LDT2	0.03	0.13
tblVehicleEF	LDT2	2.5960e-003	1.4454e-003

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tblVehicleEF	LDT2	0.04	0.16
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	8.0000e-003	8.0000e-003
tblVehicleEF	LDT2	1.1130e-003	9.1155e-004
tblVehicleEF	LDT2	1.6240e-003	1.0959e-003
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	2.0000e-003	2.0000e-003
tblVehicleEF	LDT2	1.0240e-003	8.3969e-004
tblVehicleEF	LDT2	1.4940e-003	1.0077e-003
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	6.4620e-003	5.3308e-003
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tblVehicleEF	LDT2	0.04	0.17
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tblVehicleEF	LDT2	5.7700e-004	4.9222e-004
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	9.4150e-003	7.7363e-003
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tblVehicleEF	LDT2	0.04	0.19
tblVehicleEF	LHD1	3.3030e-003	3.4304e-003

tblVehicleEF	LHD1	7.2730e-003	5.1123e-003
tblVehicleEF	LHD1	7.8940e-003	7.1795e-003
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tblVehicleEF	LHD1	0.61	0.50
tblVehicleEF	LHD1	1.27	0.75
tblVehicleEF	LHD1	9.21	8.46
tblVehicleEF	LHD1	631.32	664.88
tblVehicleEF	LHD1	22.81	8.35
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.90	0.51
tblVehicleEF	LHD1	0.53	0.18
tblVehicleEF	LHD1	8.9900e-004	1.0850e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	9.8489e-003
tblVehicleEF	LHD1	4.8600e-004	1.6518e-004
tblVehicleEF	LHD1	8.6000e-004	1.0381e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.6370e-003	2.5243e-003
tblVehicleEF	LHD1	0.01	9.3836e-003
tblVehicleEF	LHD1	4.4700e-004	1.5187e-004
tblVehicleEF	LHD1	2.0260e-003	1.7369e-003
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	9.4300e-004	7.9790e-004
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.11	0.03
tblVehicleEF	LHD1	9.1000e-005	8.1540e-005
tblVehicleEF	LHD1	6.1560e-003	6.4669e-003

tblVehicleEF	LHD1	2.5100e-004	8.2663e-005
tblVehicleEF	LHD1	2.0260e-003	1.7369e-003
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.4300e-004	7.9790e-004
tblVehicleEF	LHD1	0.12	0.10
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.12	0.04
tblVehicleEF	LHD1	3.3030e-003	3.4398e-003
tblVehicleEF	LHD1	7.3480e-003	5.1600e-003
tblVehicleEF	LHD1	7.4550e-003	6.8039e-003
tblVehicleEF	LHD1	0.13	0.16
tblVehicleEF	LHD1	0.61	0.50
tblVehicleEF	LHD1	1.18	0.70
tblVehicleEF	LHD1	9.21	8.46
tblVehicleEF	LHD1	631.32	664.88
tblVehicleEF	LHD1	22.81	8.27
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.85	0.48
tblVehicleEF	LHD1	0.50	0.17
tblVehicleEF	LHD1	8.9900e-004	1.0850e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	9.8489e-003
tblVehicleEF	LHD1	4.8600e-004	1.6518e-004
tblVehicleEF	LHD1	8.6000e-004	1.0381e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.6370e-003	2.5243e-003
tblVehicleEF	LHD1	0.01	9.3836e-003
tblVehicleEF	LHD1	4.4700e-004	1.5187e-004

tblVehicleEF	LHD1	4.7920e-003	4.1242e-003
tblVehicleEF	LHD1	0.07	0.06
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	1.8750e-003	1.6034e-003
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.10	0.03
tblVehicleEF	LHD1	9.1000e-005	8.1540e-005
tblVehicleEF	LHD1	6.1560e-003	6.4669e-003
tblVehicleEF	LHD1	2.5000e-004	8.1790e-005
tblVehicleEF	LHD1	4.7920e-003	4.1242e-003
tblVehicleEF	LHD1	0.07	0.06
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.8750e-003	1.6034e-003
tblVehicleEF	LHD1	0.12	0.10
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.11	0.04
tblVehicleEF	LHD1	3.3030e-003	3.4204e-003
tblVehicleEF	LHD1	7.1910e-003	5.0605e-003
tblVehicleEF	LHD1	8.3800e-003	7.5888e-003
tblVehicleEF	LHD1	0.13	0.16
tblVehicleEF	LHD1	0.60	0.49
tblVehicleEF	LHD1	1.37	0.81
tblVehicleEF	LHD1	9.21	8.46
tblVehicleEF	LHD1	631.32	664.87
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tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.92	0.52
tblVehicleEF	LHD1	0.57	0.19
tblVehicleEF	LHD1	8.9900e-004	1.0850e-003

tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	9.8489e-003
tblVehicleEF	LHD1	4.8600e-004	1.6518e-004
tblVehicleEF	LHD1	8.6000e-004	1.0381e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.6370e-003	2.5243e-003
tblVehicleEF	LHD1	0.01	9.3836e-003
tblVehicleEF	LHD1	4.4700e-004	1.5187e-004
tblVehicleEF	LHD1	7.3900e-004	6.2339e-004
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	4.3600e-004	3.6543e-004
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.15	0.29
tblVehicleEF	LHD1	0.11	0.04
tblVehicleEF	LHD1	9.1000e-005	8.1540e-005
tblVehicleEF	LHD1	6.1560e-003	6.4668e-003
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tblVehicleEF	LHD1	7.3900e-004	6.2339e-004
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	4.3600e-004	3.6543e-004
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.15	0.29
tblVehicleEF	LHD1	0.12	0.04
tblVehicleEF	LHD2	2.2910e-003	2.1403e-003
tblVehicleEF	LHD2	5.0030e-003	5.6172e-003
tblVehicleEF	LHD2	2.5640e-003	3.8464e-003
tblVehicleEF	LHD2	0.12	0.12

tblVehicleEF	LHD2	0.45	0.56
tblVehicleEF	LHD2	0.82	0.40
tblVehicleEF	LHD2	13.62	13.53
tblVehicleEF	LHD2	666.89	658.82
tblVehicleEF	LHD2	20.75	5.33
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.20	0.62
tblVehicleEF	LHD2	0.23	0.11
tblVehicleEF	LHD2	9.8100e-004	1.5676e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.7600e-003	0.02
tblVehicleEF	LHD2	3.5900e-004	8.3329e-005
tblVehicleEF	LHD2	9.3900e-004	1.4998e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	2.7150e-003	2.7416e-003
tblVehicleEF	LHD2	8.3590e-003	0.02
tblVehicleEF	LHD2	3.3000e-004	7.6618e-005
tblVehicleEF	LHD2	6.8500e-004	8.3457e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.4000e-004	4.1397e-004
tblVehicleEF	LHD2	0.09	0.11
tblVehicleEF	LHD2	0.03	0.11
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	1.3200e-004	1.2896e-004
tblVehicleEF	LHD2	6.4770e-003	6.3417e-003
tblVehicleEF	LHD2	2.2100e-004	5.2702e-005
tblVehicleEF	LHD2	6.8500e-004	8.3457e-004
tblVehicleEF	LHD2	0.02	0.02

tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.4000e-004	4.1397e-004
tblVehicleEF	LHD2	0.10	0.12
tblVehicleEF	LHD2	0.03	0.11
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	2.2910e-003	2.1458e-003
tblVehicleEF	LHD2	5.0270e-003	5.6387e-003
tblVehicleEF	LHD2	2.5020e-003	3.6459e-003
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	0.45	0.56
tblVehicleEF	LHD2	0.77	0.37
tblVehicleEF	LHD2	13.62	13.53
tblVehicleEF	LHD2	666.89	658.82
tblVehicleEF	LHD2	20.75	5.28
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.19	0.59
tblVehicleEF	LHD2	0.22	0.10
tblVehicleEF	LHD2	9.8100e-004	1.5676e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.7600e-003	0.02
tblVehicleEF	LHD2	3.5900e-004	8.3329e-005
tblVehicleEF	LHD2	9.3900e-004	1.4998e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	2.7150e-003	2.7416e-003
tblVehicleEF	LHD2	8.3590e-003	0.02
tblVehicleEF	LHD2	3.3000e-004	7.6618e-005
tblVehicleEF	LHD2	1.6100e-003	1.9568e-003
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.01	0.01

tblVehicleEF	LHD2	6.7700e-004	8.1481e-004
tblVehicleEF	LHD2	0.09	0.11
tblVehicleEF	LHD2	0.03	0.11
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	1.3200e-004	1.2896e-004
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tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	6.7700e-004	8.1481e-004
tblVehicleEF	LHD2	0.10	0.12
tblVehicleEF	LHD2	0.03	0.11
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	2.2910e-003	2.1345e-003
tblVehicleEF	LHD2	4.9760e-003	5.5939e-003
tblVehicleEF	LHD2	2.6330e-003	4.0642e-003
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	0.45	0.56
tblVehicleEF	LHD2	0.89	0.43
tblVehicleEF	LHD2	13.62	13.53
tblVehicleEF	LHD2	666.89	658.81
tblVehicleEF	LHD2	20.75	5.38
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.21	0.63
tblVehicleEF	LHD2	0.23	0.11
tblVehicleEF	LHD2	9.8100e-004	1.5676e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.7600e-003	0.02

tblVehicleEF	LHD2	3.5900e-004	8.3329e-005
tblVehicleEF	LHD2	9.3900e-004	1.4998e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	2.7150e-003	2.7416e-003
tblVehicleEF	LHD2	8.3590e-003	0.02
tblVehicleEF	LHD2	3.3000e-004	7.6618e-005
tblVehicleEF	LHD2	2.4900e-004	3.0818e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	1.5600e-004	1.9267e-004
tblVehicleEF	LHD2	0.09	0.11
tblVehicleEF	LHD2	0.03	0.13
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	1.3200e-004	1.2896e-004
tblVehicleEF	LHD2	6.4770e-003	6.3416e-003
tblVehicleEF	LHD2	2.2200e-004	5.3232e-005
tblVehicleEF	LHD2	2.4900e-004	3.0818e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.5600e-004	1.9267e-004
tblVehicleEF	LHD2	0.10	0.12
tblVehicleEF	LHD2	0.03	0.13
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	MCY	0.50	0.35
tblVehicleEF	MCY	0.15	0.24
tblVehicleEF	MCY	18.22	18.20
tblVehicleEF	MCY	10.30	9.15
tblVehicleEF	MCY	179.23	217.41
tblVehicleEF	MCY	43.15	59.15
tblVehicleEF	MCY	1.15	1.15

tblVehicleEF	MCY	0.31	0.27
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.3650e-003	2.3630e-003
tblVehicleEF	MCY	3.1050e-003	2.7270e-003
tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003
tblVehicleEF	MCY	2.2060e-003	2.2036e-003
tblVehicleEF	MCY	2.9020e-003	2.5482e-003
tblVehicleEF	MCY	1.51	1.51
tblVehicleEF	MCY	0.83	0.83
tblVehicleEF	MCY	0.70	0.70
tblVehicleEF	MCY	2.33	2.33
tblVehicleEF	MCY	0.26	1.39
tblVehicleEF	MCY	2.09	1.85
tblVehicleEF	MCY	2.1600e-003	2.1515e-003
tblVehicleEF	MCY	6.6100e-004	5.8534e-004
tblVehicleEF	MCY	1.51	1.51
tblVehicleEF	MCY	0.83	0.83
tblVehicleEF	MCY	0.70	0.70
tblVehicleEF	MCY	2.91	2.91
tblVehicleEF	MCY	0.26	1.39
tblVehicleEF	MCY	2.27	2.01
tblVehicleEF	MCY	0.49	0.34
tblVehicleEF	MCY	0.13	0.21
tblVehicleEF	MCY	18.42	18.40
tblVehicleEF	MCY	9.08	8.04
tblVehicleEF	MCY	179.23	217.59
tblVehicleEF	MCY	43.15	56.49
tblVehicleEF	MCY	1.00	1.00

tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.3650e-003	2.3630e-003
tblVehicleEF	MCY	3.1050e-003	2.7270e-003
tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003
tblVehicleEF	MCY	2.2060e-003	2.2036e-003
tblVehicleEF	MCY	2.9020e-003	2.5482e-003
tblVehicleEF	MCY	3.87	3.87
tblVehicleEF	MCY	1.34	1.35
tblVehicleEF	MCY	1.80	1.80
tblVehicleEF	MCY	2.29	2.29
tblVehicleEF	MCY	0.25	1.35
tblVehicleEF	MCY	1.78	1.58
tblVehicleEF	MCY	2.1620e-003	2.1532e-003
tblVehicleEF	MCY	6.3200e-004	5.5897e-004
tblVehicleEF	MCY	3.87	3.87
tblVehicleEF	MCY	1.34	1.35
tblVehicleEF	MCY	1.80	1.80
tblVehicleEF	MCY	2.86	2.86
tblVehicleEF	MCY	0.25	1.35
tblVehicleEF	MCY	1.94	1.72
tblVehicleEF	MCY	0.51	0.36
tblVehicleEF	MCY	0.18	0.29
tblVehicleEF	MCY	19.46	19.44
tblVehicleEF	MCY	12.03	10.74
tblVehicleEF	MCY	179.23	219.68
tblVehicleEF	MCY	43.15	62.83
tblVehicleEF	MCY	1.25	1.25

tblVehicleEF	MCY	0.34	0.29
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	4.0000e-003	4.0000e-003
tblVehicleEF	MCY	2.3650e-003	2.3630e-003
tblVehicleEF	MCY	3.1050e-003	2.7270e-003
tblVehicleEF	MCY	5.0400e-003	5.0400e-003
tblVehicleEF	MCY	1.0000e-003	1.0000e-003
tblVehicleEF	MCY	2.2060e-003	2.2036e-003
tblVehicleEF	MCY	2.9020e-003	2.5482e-003
tblVehicleEF	MCY	0.42	0.42
tblVehicleEF	MCY	0.82	0.82
tblVehicleEF	MCY	0.20	0.20
tblVehicleEF	MCY	2.41	2.41
tblVehicleEF	MCY	0.31	1.67
tblVehicleEF	MCY	2.46	2.19
tblVehicleEF	MCY	2.1830e-003	2.1739e-003
tblVehicleEF	MCY	7.0100e-004	6.2171e-004
tblVehicleEF	MCY	0.42	0.42
tblVehicleEF	MCY	0.82	0.82
tblVehicleEF	MCY	0.20	0.20
tblVehicleEF	MCY	3.02	3.01
tblVehicleEF	MCY	0.31	1.67
tblVehicleEF	MCY	2.68	2.39
tblVehicleEF	MDV	5.0280e-003	2.0265e-003
tblVehicleEF	MDV	6.9270e-003	0.04
tblVehicleEF	MDV	0.65	0.60
tblVehicleEF	MDV	1.42	2.19
tblVehicleEF	MDV	356.48	301.56
tblVehicleEF	MDV	77.10	60.81
tblVehicleEF	MDV	0.06	0.04

tblVehicleEF	MDV	0.11	0.18
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	1.2140e-003	9.4302e-004
tblVehicleEF	MDV	1.7640e-003	1.1635e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	1.1180e-003	8.6925e-004
tblVehicleEF	MDV	1.6220e-003	1.0698e-003
tblVehicleEF	MDV	0.09	0.10
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.07	0.09
tblVehicleEF	MDV	0.01	7.9329e-003
tblVehicleEF	MDV	0.08	0.40
tblVehicleEF	MDV	0.09	0.19
tblVehicleEF	MDV	3.5650e-003	2.9801e-003
tblVehicleEF	MDV	7.9500e-004	6.0175e-004
tblVehicleEF	MDV	0.09	0.10
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.07	0.09
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.08	0.40
tblVehicleEF	MDV	0.10	0.20
tblVehicleEF	MDV	5.7580e-003	2.3438e-003
tblVehicleEF	MDV	5.7450e-003	0.03
tblVehicleEF	MDV	0.81	0.74
tblVehicleEF	MDV	1.20	1.82
tblVehicleEF	MDV	389.59	319.93
tblVehicleEF	MDV	77.10	60.13
tblVehicleEF	MDV	0.06	0.04

tblVehicleEF	MDV	0.10	0.17
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	1.2140e-003	9.4302e-004
tblVehicleEF	MDV	1.7640e-003	1.1635e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	1.1180e-003	8.6925e-004
tblVehicleEF	MDV	1.6220e-003	1.0698e-003
tblVehicleEF	MDV	0.21	0.25
tblVehicleEF	MDV	0.18	0.15
tblVehicleEF	MDV	0.14	0.17
tblVehicleEF	MDV	0.01	9.0385e-003
tblVehicleEF	MDV	0.07	0.38
tblVehicleEF	MDV	0.08	0.15
tblVehicleEF	MDV	3.8980e-003	3.1619e-003
tblVehicleEF	MDV	7.9100e-004	5.9503e-004
tblVehicleEF	MDV	0.21	0.25
tblVehicleEF	MDV	0.18	0.15
tblVehicleEF	MDV	0.14	0.17
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.07	0.38
tblVehicleEF	MDV	0.08	0.17
tblVehicleEF	MDV	4.7340e-003	1.8836e-003
tblVehicleEF	MDV	8.0820e-003	0.05
tblVehicleEF	MDV	0.61	0.56
tblVehicleEF	MDV	1.71	2.67
tblVehicleEF	MDV	344.61	294.99
tblVehicleEF	MDV	77.10	61.66
tblVehicleEF	MDV	0.07	0.04

tblVehicleEF	MDV	0.12	0.20
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	8.0000e-003	8.0000e-003
tblVehicleEF	MDV	1.2140e-003	9.4302e-004
tblVehicleEF	MDV	1.7640e-003	1.1635e-003
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.0000e-003	2.0000e-003
tblVehicleEF	MDV	1.1180e-003	8.6925e-004
tblVehicleEF	MDV	1.6220e-003	1.0698e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.01	7.4860e-003
tblVehicleEF	MDV	0.09	0.47
tblVehicleEF	MDV	0.11	0.22
tblVehicleEF	MDV	3.4460e-003	2.9151e-003
tblVehicleEF	MDV	8.0000e-004	6.1014e-004
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.09	0.47
tblVehicleEF	MDV	0.12	0.24
tblVehicleEF	MH	7.3410e-003	4.8237e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.38	0.29
tblVehicleEF	MH	3.51	1.48
tblVehicleEF	MH	1,179.93	1,305.16
tblVehicleEF	MH	55.83	14.11
tblVehicleEF	MH	0.86	1.24

tblVehicleEF	MH	0.60	0.23
tblVehicleEF	MH	0.13	0.13
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.5600e-004	1.9371e-004
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	3.2250e-003	3.3191e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8700e-004	1.7811e-004
tblVehicleEF	MH	0.58	0.44
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.18	0.14
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	4.3760e-003	0.30
tblVehicleEF	MH	0.21	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.1900e-004	1.3966e-004
tblVehicleEF	MH	0.58	0.44
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.18	0.14
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	4.3760e-003	0.30
tblVehicleEF	MH	0.23	0.07
tblVehicleEF	MH	7.5280e-003	4.9095e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.39	0.29
tblVehicleEF	MH	3.18	1.34
tblVehicleEF	MH	1,179.93	1,305.17
tblVehicleEF	MH	55.83	13.88
tblVehicleEF	MH	0.80	1.17

tblVehicleEF	MH	0.57	0.22
tblVehicleEF	MH	0.13	0.13
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.5600e-004	1.9371e-004
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	3.2250e-003	3.3191e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8700e-004	1.7811e-004
tblVehicleEF	MH	1.38	1.04
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.35	0.27
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	4.3440e-003	0.30
tblVehicleEF	MH	0.20	0.06
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.1400e-004	1.3733e-004
tblVehicleEF	MH	1.38	1.04
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.35	0.27
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	4.3440e-003	0.30
tblVehicleEF	MH	0.21	0.07
tblVehicleEF	MH	7.1340e-003	4.7282e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.37	0.28
tblVehicleEF	MH	3.87	1.63
tblVehicleEF	MH	1,179.93	1,305.15
tblVehicleEF	MH	55.83	14.37
tblVehicleEF	MH	0.88	1.26

tblVehicleEF	MH	0.64	0.25
tblVehicleEF	MH	0.13	0.13
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.5600e-004	1.9371e-004
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	3.2250e-003	3.3191e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8700e-004	1.7811e-004
tblVehicleEF	MH	0.21	0.16
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.10	0.08
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	4.7590e-003	0.33
tblVehicleEF	MH	0.22	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.2500e-004	1.4216e-004
tblVehicleEF	MH	0.21	0.16
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.10	0.08
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	4.7590e-003	0.33
tblVehicleEF	MH	0.25	0.08
tblVehicleEF	MHD	0.02	2.7866e-003
tblVehicleEF	MHD	2.5420e-003	9.5371e-004
tblVehicleEF	MHD	0.03	5.5975e-003
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tblVehicleEF	MHD	0.24	0.16
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tblVehicleEF	MHD	178.59	87.09

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tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	3.0030e-003	8.3585e-003
tblVehicleEF	MHD	5.1500e-004	6.9682e-005
tblVehicleEF	MHD	4.9000e-005	1.4652e-004
tblVehicleEF	MHD	0.06	0.06
tblVehicleEF	MHD	3.0000e-003	3.0000e-003
tblVehicleEF	MHD	2.8670e-003	7.9913e-003
tblVehicleEF	MHD	4.7400e-004	6.4070e-005
tblVehicleEF	MHD	5.7900e-004	2.7379e-004
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tblVehicleEF	MHD	2.8800e-004	1.3536e-004
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tblVehicleEF	MHD	7.9930e-003	0.05
tblVehicleEF	MHD	0.14	0.03
tblVehicleEF	MHD	1.7120e-003	8.2451e-004
tblVehicleEF	MHD	0.01	9.3376e-003
tblVehicleEF	MHD	4.1000e-004	5.1571e-005
tblVehicleEF	MHD	5.7900e-004	2.7379e-004
tblVehicleEF	MHD	0.02	9.6369e-003
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tblVehicleEF	MHD	2.8800e-004	1.3536e-004
tblVehicleEF	MHD	0.05	0.02

tblVehicleEF	MHD	7.9930e-003	0.05
tblVehicleEF	MHD	0.15	0.03
tblVehicleEF	MHD	0.02	2.6475e-003
tblVehicleEF	MHD	2.5620e-003	9.6805e-004
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tblVehicleEF	MHD	0.24	0.16
tblVehicleEF	MHD	1.95	0.48
tblVehicleEF	MHD	189.29	86.23
tblVehicleEF	MHD	1,169.14	980.98
tblVehicleEF	MHD	37.34	5.15
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tblVehicleEF	MHD	4.3000e-005	1.3404e-004
tblVehicleEF	MHD	0.13	0.13
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	3.0030e-003	8.3585e-003
tblVehicleEF	MHD	5.1500e-004	6.9682e-005
tblVehicleEF	MHD	4.1000e-005	1.2824e-004
tblVehicleEF	MHD	0.06	0.06
tblVehicleEF	MHD	3.0000e-003	3.0000e-003
tblVehicleEF	MHD	2.8670e-003	7.9913e-003
tblVehicleEF	MHD	4.7400e-004	6.4070e-005
tblVehicleEF	MHD	1.3600e-003	6.4455e-004
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tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	5.7300e-004	2.7004e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	7.9130e-003	0.05

tblVehicleEF	MHD	0.13	0.02
tblVehicleEF	MHD	1.8130e-003	8.1648e-004
tblVehicleEF	MHD	0.01	9.3376e-003
tblVehicleEF	MHD	4.0800e-004	5.0929e-005
tblVehicleEF	MHD	1.3600e-003	6.4455e-004
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tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	5.7300e-004	2.7004e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	7.9130e-003	0.05
tblVehicleEF	MHD	0.14	0.03
tblVehicleEF	MHD	0.02	2.9150e-003
tblVehicleEF	MHD	2.5200e-003	9.3804e-004
tblVehicleEF	MHD	0.03	5.9223e-003
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tblVehicleEF	MHD	0.24	0.16
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tblVehicleEF	MHD	1,169.14	980.97
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tblVehicleEF	MHD	0.45	0.50
tblVehicleEF	MHD	1.09	1.71
tblVehicleEF	MHD	13.99	1.93
tblVehicleEF	MHD	6.2000e-005	1.7953e-004
tblVehicleEF	MHD	0.13	0.13
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	3.0030e-003	8.3585e-003
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tblVehicleEF	MHD	5.9000e-005	1.7177e-004
tblVehicleEF	MHD	0.06	0.06

tblVehicleEF	MHD	3.0000e-003	3.0000e-003
tblVehicleEF	MHD	2.8670e-003	7.9913e-003
tblVehicleEF	MHD	4.7400e-004	6.4070e-005
tblVehicleEF	MHD	2.1100e-004	9.9280e-005
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tblVehicleEF	MHD	1.3300e-004	6.2056e-005
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tblVehicleEF	MHD	8.9260e-003	0.05
tblVehicleEF	MHD	0.14	0.03
tblVehicleEF	MHD	1.5740e-003	8.3627e-004
tblVehicleEF	MHD	0.01	9.3376e-003
tblVehicleEF	MHD	4.1400e-004	5.2352e-005
tblVehicleEF	MHD	2.1100e-004	9.9280e-005
tblVehicleEF	MHD	0.02	9.5681e-003
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tblVehicleEF	MHD	1.3300e-004	6.2056e-005
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tblVehicleEF	MHD	8.9260e-003	0.05
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tblVehicleEF	OBUS	1,286.45	1,161.63
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tblVehicleEF	OBUS	4.72	1.36
tblVehicleEF	OBUS	4.8000e-005	2.6147e-004
tblVehicleEF	OBUS	0.13	0.13
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	2.9060e-003	9.3825e-003
tblVehicleEF	OBUS	8.6900e-004	1.1990e-004
tblVehicleEF	OBUS	4.6000e-005	2.5016e-004
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	2.7600e-003	8.9621e-003
tblVehicleEF	OBUS	7.9900e-004	1.1024e-004
tblVehicleEF	OBUS	1.5860e-003	1.4074e-003
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tblVehicleEF	OBUS	0.04	0.07
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tblVehicleEF	OBUS	0.05	0.09
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tblVehicleEF	OBUS	3.6940e-003	1.9991e-003
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tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	2.9060e-003	9.3825e-003
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tblVehicleEF	OBUS	3.9000e-005	2.2228e-004
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tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
tblVehicleEF	OBUS	2.7600e-003	8.9621e-003
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tblVehicleEF	OBUS	0.01	0.01

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tblVehicleEF	OBUS	0.05	0.09
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tblVehicleEF	OBUS	0.02	0.18
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tblVehicleEF	OBUS	3.0000e-003	3.0000e-003
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tblVehicleEF	SBUS	2.7610e-003	2.8107e-003
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tblVehicleEF	SBUS	4.9470e-003	0.02
tblVehicleEF	SBUS	4.1200e-004	1.9664e-005
tblVehicleEF	SBUS	1.0270e-003	1.2696e-003
tblVehicleEF	SBUS	0.32	0.32
tblVehicleEF	SBUS	2.7610e-003	2.8107e-003
tblVehicleEF	SBUS	4.7220e-003	0.02
tblVehicleEF	SBUS	3.7900e-004	1.8080e-005
tblVehicleEF	SBUS	9.8900e-004	1.5511e-004
tblVehicleEF	SBUS	0.02	2.5123e-003
tblVehicleEF	SBUS	0.44	0.11

tblVehicleEF	SBUS	5.0800e-004	7.9611e-005
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	8.5910e-003	0.02
tblVehicleEF	SBUS	0.17	0.01
tblVehicleEF	SBUS	0.01	2.6976e-003
tblVehicleEF	SBUS	0.01	8.7551e-003
tblVehicleEF	SBUS	2.9700e-004	1.4632e-005
tblVehicleEF	SBUS	9.8900e-004	1.5511e-004
tblVehicleEF	SBUS	0.02	2.5123e-003
tblVehicleEF	SBUS	0.63	0.15
tblVehicleEF	SBUS	5.0800e-004	7.9611e-005
tblVehicleEF	SBUS	0.07	0.05
tblVehicleEF	SBUS	8.5910e-003	0.02
tblVehicleEF	SBUS	0.18	0.01
tblVehicleEF	UBUS	0.72	1.89
tblVehicleEF	UBUS	0.06	0.05
tblVehicleEF	UBUS	3.92	13.88
tblVehicleEF	UBUS	8.69	3.39
tblVehicleEF	UBUS	1,790.75	1,467.43
tblVehicleEF	UBUS	146.64	32.98
tblVehicleEF	UBUS	2.28	0.32
tblVehicleEF	UBUS	11.97	0.35
tblVehicleEF	UBUS	0.49	0.11
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.04	2.6452e-003
tblVehicleEF	UBUS	1.4640e-003	4.4035e-004
tblVehicleEF	UBUS	0.21	0.05
tblVehicleEF	UBUS	3.0000e-003	3.7366e-003
tblVehicleEF	UBUS	0.04	2.4936e-003
tblVehicleEF	UBUS	1.3470e-003	4.0488e-004

tblVehicleEF	UBUS	6.0860e-003	2.8284e-003
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	2.7610e-003	1.2901e-003
tblVehicleEF	UBUS	0.14	0.03
tblVehicleEF	UBUS	0.01	0.14
tblVehicleEF	UBUS	0.82	0.19
tblVehicleEF	UBUS	0.01	7.4953e-003
tblVehicleEF	UBUS	1.6270e-003	3.2641e-004
tblVehicleEF	UBUS	6.0860e-003	2.8284e-003
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	2.7610e-003	1.2901e-003
tblVehicleEF	UBUS	0.87	1.93
tblVehicleEF	UBUS	0.01	0.14
tblVehicleEF	UBUS	0.89	0.21
tblVehicleEF	UBUS	0.72	1.89
tblVehicleEF	UBUS	0.05	0.04
tblVehicleEF	UBUS	3.93	13.88
tblVehicleEF	UBUS	7.04	2.75
tblVehicleEF	UBUS	1,790.75	1,467.44
tblVehicleEF	UBUS	146.64	31.90
tblVehicleEF	UBUS	2.16	0.31
tblVehicleEF	UBUS	11.88	0.33
tblVehicleEF	UBUS	0.49	0.11
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.04	2.6452e-003
tblVehicleEF	UBUS	1.4640e-003	4.4035e-004
tblVehicleEF	UBUS	0.21	0.05
tblVehicleEF	UBUS	3.0000e-003	3.7366e-003
tblVehicleEF	UBUS	0.04	2.4936e-003
tblVehicleEF	UBUS	1.3470e-003	4.0488e-004

tblVehicleEF	UBUS	0.01	6.8100e-003
tblVehicleEF	UBUS	0.08	0.03
tblVehicleEF	UBUS	5.3930e-003	2.7057e-003
tblVehicleEF	UBUS	0.14	0.03
tblVehicleEF	UBUS	0.01	0.13
tblVehicleEF	UBUS	0.72	0.17
tblVehicleEF	UBUS	0.01	7.4954e-003
tblVehicleEF	UBUS	1.5980e-003	3.1567e-004
tblVehicleEF	UBUS	0.01	6.8100e-003
tblVehicleEF	UBUS	0.08	0.03
tblVehicleEF	UBUS	5.3930e-003	2.7057e-003
tblVehicleEF	UBUS	0.87	1.93
tblVehicleEF	UBUS	0.01	0.13
tblVehicleEF	UBUS	0.79	0.18
tblVehicleEF	UBUS	0.72	1.89
tblVehicleEF	UBUS	0.07	0.05
tblVehicleEF	UBUS	3.90	13.87
tblVehicleEF	UBUS	10.53	4.09
tblVehicleEF	UBUS	1,790.75	1,467.42
tblVehicleEF	UBUS	146.64	34.18
tblVehicleEF	UBUS	2.34	0.33
tblVehicleEF	UBUS	12.07	0.38
tblVehicleEF	UBUS	0.49	0.11
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.04	2.6452e-003
tblVehicleEF	UBUS	1.4640e-003	4.4035e-004
tblVehicleEF	UBUS	0.21	0.05
tblVehicleEF	UBUS	3.0000e-003	3.7366e-003
tblVehicleEF	UBUS	0.04	2.4936e-003
tblVehicleEF	UBUS	1.3470e-003	4.0488e-004

tblVehicleEF	UBUS	2.3130e-003	9.8670e-004
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	1.4800e-003	6.1539e-004
tblVehicleEF	UBUS	0.14	0.03
tblVehicleEF	UBUS	0.01	0.17
tblVehicleEF	UBUS	0.92	0.21
tblVehicleEF	UBUS	0.01	7.4952e-003
tblVehicleEF	UBUS	1.6590e-003	3.3819e-004
tblVehicleEF	UBUS	2.3130e-003	9.8670e-004
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	1.4800e-003	6.1539e-004
tblVehicleEF	UBUS	0.87	1.93
tblVehicleEF	UBUS	0.01	0.17
tblVehicleEF	UBUS	1.00	0.23
tblVehicleTrips	CC_TL	7.30	7.89
tblVehicleTrips	CC_TL	7.30	7.88
tblVehicleTrips	CC_TL	7.30	7.89
tblVehicleTrips	CC_TTP	48.00	100.00
tblVehicleTrips	CC_TTP	28.00	100.00
tblVehicleTrips	CC_TTP	64.40	100.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	33.00	0.00

tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	7.50	0.00
tblVehicleTrips	HO_TL	7.50	0.00
tblVehicleTrips	HO_TTP	35.70	0.00
tblVehicleTrips	HO_TTP	35.70	0.00
tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HS_TTP	17.40	0.00
tblVehicleTrips	HS_TTP	17.40	0.00
tblVehicleTrips	HW_TL	10.80	11.67
tblVehicleTrips	HW_TL	10.80	11.67
tblVehicleTrips	HW_TTP	46.90	100.00
tblVehicleTrips	HW_TTP	46.90	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	79.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	6.39	7.02

tblVehicleTrips	ST_TR	2.46	2.36
tblVehicleTrips	ST_TR	2.49	2.20
tblVehicleTrips	ST_TR	9.91	10.08
tblVehicleTrips	ST_TR	42.04	23.63
tblVehicleTrips	SU_TR	5.86	6.44
tblVehicleTrips	SU_TR	1.05	1.01
tblVehicleTrips	SU_TR	0.73	0.64
tblVehicleTrips	SU_TR	8.62	8.65
tblVehicleTrips	SU_TR	20.43	11.48
tblVehicleTrips	WD_TR	6.65	7.31
tblVehicleTrips	WD_TR	11.03	10.59
tblVehicleTrips	WD_TR	6.83	6.02
tblVehicleTrips	WD_TR	9.52	11.40
tblVehicleTrips	WD_TR	44.32	24.91
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction

- Construction modeled Separately

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	20.6645	0.7701	12.6789	4.6600e-003		0.1197	0.1197		0.1197	0.1197	0.0000	746.4057	746.4057	0.0333	0.0133	751.2055
Energy	0.2528	2.1781	1.0502	0.0138		0.1747	0.1747		0.1747	0.1747	0.0000	5,336.1696	5,336.1696	0.3701	0.1125	5,378.9560
Mobile	9.0025	20.3753	95.0002	0.3397	43.1143	0.2407	43.3551	11.5548	0.2261	11.7809	0.0000	31,533.6288	31,533.6288	1.0118	0.0000	31,558.9235
Waste						0.0000	0.0000		0.0000	0.0000	253.1033	0.0000	253.1033	14.9580	0.0000	627.0528
Water						0.0000	0.0000		0.0000	0.0000	114.9683	249.3999	364.3682	3.3290	0.2559	523.8466
Total	**29.9198**	**23.3234**	**108.7292**	**0.3581**	**43.1143**	**0.5351**	**43.6495**	**11.5548**	**0.5205**	**12.0753**	**368.0716**	**37,865.6040**	**38,233.6757**	**19.7022**	**0.3817**	**38,839.9844**

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	20.6645	0.7701	12.6789	4.6600e-003		0.1197	0.1197		0.1197	0.1197	0.0000	746.4057	746.4057	0.0333	0.0133	751.2055
Energy	0.2528	2.1781	1.0502	0.0138		0.1747	0.1747		0.1747	0.1747	0.0000	5,336.1696	5,336.1696	0.3701	0.1125	5,378.9560
Mobile	9.0025	20.3753	95.0002	0.3397	43.1143	0.2407	43.3551	11.5548	0.2261	11.7809	0.0000	31,533.6288	31,533.6288	1.0118	0.0000	31,558.9235

Waste						0.0000	0.0000		0.0000	0.0000	253.1033	0.0000	253.1033	14.9580	0.0000	627.0528
Water						0.0000	0.0000		0.0000	0.0000	114.9683	249.3999	364.3682	3.3290	0.2559	523.8466
Total	**29.9198**	**23.3234**	**108.7292**	**0.3581**	**43.1143**	**0.5351**	**43.6495**	**11.5548**	**0.5205**	**12.0753**	**368.0716**	**37,865.6040**	**38,233.6757**	**19.7022**	**0.3817**	**38,839.9844**

	ROG	NOx	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 Modeled Separately

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.0025	20.3753	95.0002	0.3397	43.1143	0.2407	43.3551	11.5548	0.2261	11.7809	0.0000	31,533.6288	31,533.6288	1.0118	0.0000	31,558.9235
Unmitigated	9.0025	20.3753	95.0002	0.3397	43.1143	0.2407	43.3551	11.5548	0.2261	11.7809	0.0000	31,533.6288	31,533.6288	1.0118	0.0000	31,558.9235

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	211.99	203.58	186.76	880,094	880,094
General Office Building	2,702.57	602.27	257.75	5,896,899	5,896,899

Industrial Park	3,724.27	1,361.03	395.94	8,347,046	8,347,046
Single Family Housing	18,775.80	16,601.76	14246.55	75,689,521	75,689,521
Strip Mall	9,191.79	8,719.47	4236.12	24,171,457	24,171,457
Total	34,606.42	27,488.11	19,323.12	114,985,017	114,985,017

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
Apartments Mid Rise	11.67	0.00	0.00	100.00	0.00	0.00	100	0	0
General Office Building	0.00	7.89	0.00	0.00	100.00	0.00	100	0	0
Industrial Park	0.00	7.88	0.00	0.00	100.00	0.00	100	0	0
Single Family Housing	11.67	0.00	0.00	100.00	0.00	0.00	100	0	0
Strip Mall	0.00	7.89	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
General Office Building	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
Industrial Park	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
Single Family Housing	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
Strip Mall	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539

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	2,834.3946	2,834.3946	0.3222	0.0667	2,862.3141
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,834.3946	2,834.3946	0.3222	0.0667	2,862.3141
NaturalGas Mitigated	0.2528	2.1781	1.0502	0.0138		0.1747	0.1747		0.1747	0.1747	0.0000	2,501.7751	2,501.7751	0.0480	0.0459	2,516.6419
NaturalGas Unmitigated	0.2528	2.1781	1.0502	0.0138		0.1747	0.1747		0.1747	0.1747	0.0000	2,501.7751	2,501.7751	0.0480	0.0459	2,516.6419

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					
Apartments Mid Rise	335995	1.8100e-003	0.0155	6.5900e-003	1.0000e-004		1.2500e-003	1.2500e-003		1.2500e-003	1.2500e-003	0.0000	17.9300	17.9300	3.4000e-004	3.3000e-004	18.0365
General Office Building	2.35294e+006	0.0127	0.1153	0.0969	6.9000e-004		8.7700e-003	8.7700e-003		8.7700e-003	8.7700e-003	0.0000	125.5621	125.5621	2.4100e-003	2.3000e-003	126.3082
Industrial Park	723821	3.9000e-003	0.0355	0.0298	2.1000e-004		2.7000e-003	2.7000e-003		2.7000e-003	2.7000e-003	0.0000	38.6258	38.6258	7.4000e-004	7.1000e-004	38.8554
Single Family Housing	4.04761e+007	0.2183	1.8651	0.7937	0.0119		0.1508	0.1508		0.1508	0.1508	0.0000	2,159.9612	2,159.9612	0.0414	0.0396	2,172.7968
Strip Mall	2.99259e+006	0.0161	0.1467	0.1232	8.8000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	159.6960	159.6960	3.0600e-003	2.9300e-003	160.6450
Total		**0.2528**	**2.1781**	**1.0502**	**0.0138**		**0.1747**	**0.1747**		**0.1747**	**0.1747**	**0.0000**	**2,501.7751**	**2,501.7751**	**0.0480**	**0.0459**	**2,516.6419**

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					

Apartments Mid Rise	335995	1.8100e-003	0.0155	6.5900e-003	1.0000e-004		1.2500e-003	1.2500e-003		1.2500e-003	1.2500e-003	0.0000	17.9300	17.9300	3.4000e-004	3.3000e-004	18.0365
General Office Building	2.35294e+006	0.0127	0.1153	0.0969	6.9000e-004		8.7700e-003	8.7700e-003		8.7700e-003	8.7700e-003	0.0000	125.5621	125.5621	2.4100e-003	2.3000e-003	126.3082
Industrial Park	723821	3.9000e-003	0.0355	0.0298	2.1000e-004		2.7000e-003	2.7000e-003		2.7000e-003	2.7000e-003	0.0000	38.6258	38.6258	7.4000e-004	7.1000e-004	38.8554
Single Family Housing	4.04761e+007	0.2183	1.8651	0.7937	0.0119		0.1508	0.1508		0.1508	0.1508	0.0000	2,159.9612	2,159.9612	0.0414	0.0396	2,172.7968
Strip Mall	2.99259e+006	0.0161	0.1467	0.1232	8.8000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	159.6960	159.6960	3.0600e-003	2.9300e-003	160.6450
Total		**0.2528**	**2.1781**	**1.0502**	**0.0138**		**0.1747**	**0.1747**		**0.1747**	**0.1747**	**0.0000**	**2,501.7751**	**2,501.7751**	**0.0480**	**0.0459**	**2,516.6419**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	128969	14.9243	1.7000e-003	3.5000e-004	15.0713
General Office Building	2.12582e+006	246.0005	0.0280	5.7900e-003	248.4236
Industrial Park	5.15335e+006	596.3487	0.0678	0.0140	602.2229
Single Family Housing	1.43141e+007	1,656.4377	0.1883	0.0390	1,672.7540
Strip Mall	2.77119e+006	320.6835	0.0365	7.5400e-003	323.8423
Total		**2,834.3946**	**0.3222**	**0.0667**	**2,862.3141**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	128969	14.9243	1.7000e-003	3.5000e-004	15.0713
General Office Building	2.12582e+006	246.0005	0.0280	5.7900e-003	248.4236
Industrial Park	5.15335e+006	596.3487	0.0678	0.0140	602.2229
Single Family Housing	1.43141e+007	1,656.4377	0.1883	0.0390	1,672.7540
Strip Mall	2.77119e+006	320.6835	0.0365	7.5400e-003	323.8423
Total		**2,834.3946**	**0.3222**	**0.0667**	**2,862.3141**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	20.6645	0.7701	12.6789	4.6600e-003		0.1197	0.1197		0.1197	0.1197	0.0000	746.4057	746.4057	0.0333	0.0133	751.2055
Unmitigated	20.6645	0.7701	12.6789	4.6600e-003		0.1197	0.1197		0.1197	0.1197	0.0000	746.4057	746.4057	0.0333	0.0133	751.2055

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	3.6739					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	16.5455					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0734	0.6269	0.2668	4.0000e-003		0.0507	0.0507		0.0507	0.0507	0.0000	726.0556	726.0556	0.0139	0.0133	730.3702
Landscaping	0.3718	0.1432	12.4121	6.6000e-004		0.0691	0.0691		0.0691	0.0691	0.0000	20.3501	20.3501	0.0194	0.0000	20.8353
Total	**20.6645**	**0.7701**	**12.6789**	**4.6600e-003**		**0.1197**	**0.1197**		**0.1197**	**0.1197**	**0.0000**	**746.4057**	**746.4057**	**0.0333**	**0.0133**	**751.2055**

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	3.6739					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	16.5455					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0734	0.6269	0.2668	4.0000e-003		0.0507	0.0507		0.0507	0.0507	0.0000	726.0556	726.0556	0.0139	0.0133	730.3702
Landscaping	0.3718	0.1432	12.4121	6.6000e-004		0.0691	0.0691		0.0691	0.0691	0.0000	20.3501	20.3501	0.0194	0.0000	20.8353
Total	**20.6645**	**0.7701**	**12.6789**	**4.6600e-003**		**0.1197**	**0.1197**		**0.1197**	**0.1197**	**0.0000**	**746.4057**	**746.4057**	**0.0333**	**0.0133**	**751.2055**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	364.3682	3.3290	0.2559	523.8466
Unmitigated	364.3682	3.3290	0.2559	523.8466

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.88947 / 1.19119	2.3341	0.0194	1.4900e-003	3.2635
General Office Building	45.3577 / 27.7999	55.7085	0.4652	0.0358	78.0167
Industrial Park	143.063 / 0	140.1966	1.4633	0.1122	210.2092
Single Family Housing	107.309 / 67.6511	132.5589	1.1007	0.0848	185.3440
Strip Mall	27.3328 / 16.7523	33.5702	0.2804	0.0216	47.0133
Total		**364.3683**	**3.3290**	**0.2559**	**523.8466**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.88947 / 1.19119	2.3341	0.0194	1.4900e-003	3.2635
General Office Building	45.3577 / 27.7999	55.7085	0.4652	0.0358	78.0167
Industrial Park	143.063 / 0	140.1966	1.4633	0.1122	210.2092
Single Family Housing	107.309 / 67.6511	132.5589	1.1007	0.0848	185.3440
Strip Mall	27.3328 / 16.7523	33.5702	0.2804	0.0216	47.0133
Total		**364.3683**	**3.3290**	**0.2559**	**523.8466**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	253.1033	14.9580	0.0000	627.0528
Unmitigated	253.1033	14.9580	0.0000	627.0528

8.2 Waste by Land Use

Unmitigated

Land Use	Waste Disposed	Total CO2	CH4	N2O	CO2e
	tons	MT/yr			
Apartments Mid Rise	5.6	1.1368	0.0672	0.0000	2.8163
General Office Building	90.19	18.3078	1.0820	0.0000	45.3567
Industrial Park	291.51	59.1739	3.4971	0.0000	146.6008
Single Family Housing	712.15	144.5600	8.5433	0.0000	358.1413
Strip Mall	147.42	29.9249	1.7685	0.0000	74.1377
Total		**253.1033**	**14.9580**	**0.0000**	**627.0528**

Mitigated

Land Use	Waste Disposed	Total CO2	CH4	N2O	CO2e
	tons	MT/yr			
Apartments Mid Rise	5.6	1.1368	0.0672	0.0000	2.8163
General Office Building	90.19	18.3078	1.0820	0.0000	45.3567
Industrial Park	291.51	59.1739	3.4971	0.0000	146.6008
Single Family Housing	712.15	144.5600	8.5433	0.0000	358.1413
Strip Mall	147.42	29.9249	1.7685	0.0000	74.1377
Total		**253.1033**	**14.9580**	**0.0000**	**627.0528**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Air Quality Appendix
C. Modeling Output

d. Mitigated Operational

Modeling Output included in this Appendix:

Winton - Operational - Mitigated

Winton - Operational - Mitigated

Merced County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	255.20	1000sqft	16.01	255,200.00	0
Industrial Park	618.65	1000sqft	50.95	618,650.00	0
Apartments Mid Rise	29.00	Dwelling Unit	2.34	29,000.00	83
Single Family Housing	1,647.00	Dwelling Unit	488.00	2,964,600.00	4710
Strip Mall	369.00	1000sqft	35.00	369,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	49
Climate Zone	3			**Operational Year**	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	255.12	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - Construction modeled separately

Off-road Equipment - See assumptions

Vehicle Trips - See Assumptions

Road Dust - see assumptions

Energy Use - See Assumptions

Water And Wastewater - See Assumptions

Solid Waste - See Assumptions

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation - See Assumptions

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	150	50
tblEnergyUse	T24E	700.71	651.66
tblEnergyUse	T24E	2.62	1.83
tblEnergyUse	T24E	2.62	1.83
tblEnergyUse	T24E	995.93	926.22
tblEnergyUse	T24E	2.14	1.50
tblEnergyUse	T24NG	8,454.86	7,863.02
tblEnergyUse	T24NG	12.77	8.94
tblEnergyUse	T24NG	12.77	0.89
tblEnergyUse	T24NG	22,422.24	20,852.68
tblEnergyUse	T24NG	8.62	6.03
tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDA	0.54	0.62

tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LHD1	8.2190e-003	0.02
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tblFleetMix	LHD1	8.2190e-003	0.02
tblFleetMix	LHD1	8.2190e-003	0.02
tblFleetMix	LHD1	8.2190e-003	0.02
tblFleetMix	LHD2	3.1010e-003	4.6720e-003
tblFleetMix	LHD2	3.1010e-003	4.6720e-003
tblFleetMix	LHD2	3.1010e-003	4.6720e-003
tblFleetMix	LHD2	3.1010e-003	4.6720e-003
tblFleetMix	LHD2	3.1010e-003	4.6720e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MDV	0.08	0.10

tblFleetMix	MDV	0.08	0.10
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tblFleetMix	MH	3.9400e-004	5.3900e-004
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tblFleetMix	MHD	0.01	0.02
tblFleetMix	MHD	0.01	0.02
tblFleetMix	MHD	0.01	0.02
tblFleetMix	OBUS	2.3180e-003	1.6850e-003
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tblFleetMix	OBUS	2.3180e-003	1.6850e-003
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tblFleetMix	SBUS	1.1980e-003	1.8630e-003
tblFleetMix	SBUS	1.1980e-003	1.8630e-003
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tblFleetMix	UBUS	1.4170e-003	1.4970e-003
tblFleetMix	UBUS	1.4170e-003	1.4970e-003
tblFleetMix	UBUS	1.4170e-003	1.4970e-003
tblFleetMix	UBUS	1.4170e-003	1.4970e-003
tblLandUse	LotAcreage	5.86	16.01
tblLandUse	LotAcreage	14.20	50.95
tblLandUse	LotAcreage	0.76	2.34
tblLandUse	LotAcreage	534.74	488.00

tblLandUse	LotAcreage	8.47	35.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	255.12
tblSolidWaste	SolidWasteGenerationRate	13.34	5.60
tblSolidWaste	SolidWasteGenerationRate	237.34	90.19
tblSolidWaste	SolidWasteGenerationRate	767.13	291.51
tblSolidWaste	SolidWasteGenerationRate	1,695.60	712.15
tblSolidWaste	SolidWasteGenerationRate	387.45	147.42
tblVehicleEF	HHD	2.26	0.02
tblVehicleEF	HHD	5.9230e-003	2.2340e-003
tblVehicleEF	HHD	0.06	0.00
tblVehicleEF	HHD	1.83	7.50
tblVehicleEF	HHD	0.50	0.21
tblVehicleEF	HHD	0.45	5.7900e-004
tblVehicleEF	HHD	5,420.44	1,007.75
tblVehicleEF	HHD	1,442.40	1,040.69
tblVehicleEF	HHD	1.35	4.2460e-003
tblVehicleEF	HHD	15.17	6.02
tblVehicleEF	HHD	1.35	2.16
tblVehicleEF	HHD	20.70	2.24
tblVehicleEF	HHD	1.8290e-003	2.1960e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.3490e-003	0.03
tblVehicleEF	HHD	1.4000e-005	0.00
tblVehicleEF	HHD	1.7500e-003	2.1010e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9730e-003	8.9820e-003
tblVehicleEF	HHD	5.1170e-003	0.02
tblVehicleEF	HHD	1.3000e-005	0.00

tblVehicleEF	HHD	1.9000e-005	0.00
tblVehicleEF	HHD	6.3800e-004	5.0000e-006
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tblVehicleEF	HHD	1.0000e-005	0.00
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tblVehicleEF	HHD	4.9000e-005	2.2000e-005
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tblVehicleEF	HHD	0.05	9.5170e-003
tblVehicleEF	HHD	0.01	9.8230e-003
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tblVehicleEF	HHD	1.9000e-005	0.00
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tblVehicleEF	HHD	4.5000e-005	0.00
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tblVehicleEF	HHD	2.52	7.64

tblVehicleEF	HHD	0.50	0.21
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tblVehicleEF	HHD	4,975.72	1,025.89
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tblVehicleEF	HHD	5.3490e-003	0.03
tblVehicleEF	HHD	1.4000e-005	0.00
tblVehicleEF	HHD	2.1290e-003	2.4260e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9730e-003	8.9820e-003
tblVehicleEF	HHD	5.1170e-003	0.02
tblVehicleEF	HHD	1.3000e-005	0.00
tblVehicleEF	HHD	7.0000e-006	0.00
tblVehicleEF	HHD	6.3500e-004	5.0000e-006
tblVehicleEF	HHD	0.53	0.47
tblVehicleEF	HHD	5.0000e-006	0.00
tblVehicleEF	HHD	0.08	0.02
tblVehicleEF	HHD	5.5000e-005	2.5000e-005
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tblVehicleEF	HHD	0.05	9.6890e-003
tblVehicleEF	HHD	0.01	9.8230e-003
tblVehicleEF	HHD	2.1000e-005	0.00
tblVehicleEF	HHD	7.0000e-006	0.00
tblVehicleEF	HHD	6.3500e-004	5.0000e-006

tblVehicleEF	HHD	0.61	0.53
tblVehicleEF	HHD	5.0000e-006	0.00
tblVehicleEF	HHD	0.09	0.02
tblVehicleEF	HHD	5.5000e-005	2.5000e-005
tblVehicleEF	HHD	9.0820e-003	0.00
tblVehicleEF	LDA	1.6980e-003	8.9200e-004
tblVehicleEF	LDA	1.2810e-003	0.02
tblVehicleEF	LDA	0.31	0.42
tblVehicleEF	LDA	0.47	1.54
tblVehicleEF	LDA	178.24	200.23
tblVehicleEF	LDA	38.17	39.46
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.12
tblVehicleEF	LDA	9.4600e-004	8.0800e-004
tblVehicleEF	LDA	1.4000e-003	1.0410e-003
tblVehicleEF	LDA	8.7000e-004	7.4400e-004
tblVehicleEF	LDA	1.2880e-003	9.5800e-004
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.2700e-003	2.7960e-003
tblVehicleEF	LDA	0.02	0.17
tblVehicleEF	LDA	0.02	0.09
tblVehicleEF	LDA	1.7830e-003	1.9810e-003
tblVehicleEF	LDA	3.8900e-004	3.9000e-004
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	6.2060e-003	4.0610e-003
tblVehicleEF	LDA	0.02	0.17

tblVehicleEF	LDA	0.02	0.10
tblVehicleEF	LDA	1.9530e-003	1.0380e-003
tblVehicleEF	LDA	1.0560e-003	0.02
tblVehicleEF	LDA	0.38	0.52
tblVehicleEF	LDA	0.39	1.29
tblVehicleEF	LDA	195.64	219.28
tblVehicleEF	LDA	38.17	39.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.11
tblVehicleEF	LDA	9.4600e-004	8.0800e-004
tblVehicleEF	LDA	1.4000e-003	1.0410e-003
tblVehicleEF	LDA	8.7000e-004	7.4400e-004
tblVehicleEF	LDA	1.2880e-003	9.5800e-004
tblVehicleEF	LDA	0.05	0.08
tblVehicleEF	LDA	0.06	0.07
tblVehicleEF	LDA	0.03	0.05
tblVehicleEF	LDA	4.9000e-003	3.2010e-003
tblVehicleEF	LDA	0.02	0.17
tblVehicleEF	LDA	0.01	0.08
tblVehicleEF	LDA	1.9580e-003	2.1690e-003
tblVehicleEF	LDA	3.8800e-004	3.8600e-004
tblVehicleEF	LDA	0.05	0.08
tblVehicleEF	LDA	0.06	0.07
tblVehicleEF	LDA	0.03	0.05
tblVehicleEF	LDA	7.1260e-003	4.6530e-003
tblVehicleEF	LDA	0.02	0.17
tblVehicleEF	LDA	0.02	0.09
tblVehicleEF	LDA	1.5960e-003	8.2700e-004
tblVehicleEF	LDA	1.5000e-003	0.03
tblVehicleEF	LDA	0.28	0.39

tblVehicleEF	LDA	0.57	1.87
tblVehicleEF	LDA	172.00	193.41
tblVehicleEF	LDA	38.17	40.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.13
tblVehicleEF	LDA	9.4600e-004	8.0800e-004
tblVehicleEF	LDA	1.4000e-003	1.0410e-003
tblVehicleEF	LDA	8.7000e-004	7.4400e-004
tblVehicleEF	LDA	1.2880e-003	9.5800e-004
tblVehicleEF	LDA	6.6130e-003	0.01
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	5.6950e-003	9.6750e-003
tblVehicleEF	LDA	4.0170e-003	2.6330e-003
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.02	0.11
tblVehicleEF	LDA	1.7200e-003	1.9130e-003
tblVehicleEF	LDA	3.9100e-004	3.9600e-004
tblVehicleEF	LDA	6.6130e-003	0.01
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	5.6950e-003	9.6750e-003
tblVehicleEF	LDA	5.8370e-003	3.8230e-003
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.02	0.12
tblVehicleEF	LDT1	3.0530e-003	1.4300e-003
tblVehicleEF	LDT1	3.6040e-003	0.03
tblVehicleEF	LDT1	0.45	0.51
tblVehicleEF	LDT1	0.90	1.66
tblVehicleEF	LDT1	229.29	239.80
tblVehicleEF	LDT1	50.14	48.10
tblVehicleEF	LDT1	0.04	0.03

tblVehicleEF	LDT1	0.04	0.14
tblVehicleEF	LDT1	1.1950e-003	9.2400e-004
tblVehicleEF	LDT1	1.7740e-003	1.1910e-003
tblVehicleEF	LDT1	1.0990e-003	8.4900e-004
tblVehicleEF	LDT1	1.6310e-003	1.0950e-003
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.04	0.05
tblVehicleEF	LDT1	7.5680e-003	5.2150e-003
tblVehicleEF	LDT1	0.06	0.34
tblVehicleEF	LDT1	0.05	0.13
tblVehicleEF	LDT1	2.2960e-003	2.3730e-003
tblVehicleEF	LDT1	5.1600e-004	4.7600e-004
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.04	0.05
tblVehicleEF	LDT1	0.01	7.6240e-003
tblVehicleEF	LDT1	0.06	0.34
tblVehicleEF	LDT1	0.05	0.14
tblVehicleEF	LDT1	3.4960e-003	1.6560e-003
tblVehicleEF	LDT1	2.9720e-003	0.03
tblVehicleEF	LDT1	0.56	0.63
tblVehicleEF	LDT1	0.74	1.39
tblVehicleEF	LDT1	251.22	259.39
tblVehicleEF	LDT1	50.14	47.61
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.04	0.13
tblVehicleEF	LDT1	1.1950e-003	9.2400e-004
tblVehicleEF	LDT1	1.7740e-003	1.1910e-003
tblVehicleEF	LDT1	1.0990e-003	8.4900e-004

tblVehicleEF	LDT1	1.6310e-003	1.0950e-003
tblVehicleEF	LDT1	0.15	0.16
tblVehicleEF	LDT1	0.14	0.11
tblVehicleEF	LDT1	0.09	0.10
tblVehicleEF	LDT1	8.6640e-003	5.9660e-003
tblVehicleEF	LDT1	0.06	0.33
tblVehicleEF	LDT1	0.04	0.11
tblVehicleEF	LDT1	2.5170e-003	2.5670e-003
tblVehicleEF	LDT1	5.1300e-004	4.7100e-004
tblVehicleEF	LDT1	0.15	0.16
tblVehicleEF	LDT1	0.14	0.11
tblVehicleEF	LDT1	0.09	0.10
tblVehicleEF	LDT1	0.01	8.7210e-003
tblVehicleEF	LDT1	0.06	0.33
tblVehicleEF	LDT1	0.04	0.12
tblVehicleEF	LDT1	2.8750e-003	1.3290e-003
tblVehicleEF	LDT1	4.2230e-003	0.03
tblVehicleEF	LDT1	0.42	0.47
tblVehicleEF	LDT1	1.09	2.02
tblVehicleEF	LDT1	221.43	232.79
tblVehicleEF	LDT1	50.14	48.72
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.05	0.16
tblVehicleEF	LDT1	1.1950e-003	9.2400e-004
tblVehicleEF	LDT1	1.7740e-003	1.1910e-003
tblVehicleEF	LDT1	1.0990e-003	8.4900e-004
tblVehicleEF	LDT1	1.6310e-003	1.0950e-003
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.02	0.02

tblVehicleEF	LDT1	7.1250e-003	4.9120e-003
tblVehicleEF	LDT1	0.07	0.41
tblVehicleEF	LDT1	0.06	0.15
tblVehicleEF	LDT1	2.2170e-003	2.3040e-003
tblVehicleEF	LDT1	5.1900e-004	4.8200e-004
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.01	7.1800e-003
tblVehicleEF	LDT1	0.07	0.41
tblVehicleEF	LDT1	0.06	0.16
tblVehicleEF	LDT2	2.7600e-003	1.5570e-003
tblVehicleEF	LDT2	2.4660e-003	0.03
tblVehicleEF	LDT2	0.47	0.55
tblVehicleEF	LDT2	0.75	2.06
tblVehicleEF	LDT2	260.94	242.47
tblVehicleEF	LDT2	56.29	48.96
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.04	0.15
tblVehicleEF	LDT2	1.1130e-003	9.1200e-004
tblVehicleEF	LDT2	1.6240e-003	1.0960e-003
tblVehicleEF	LDT2	1.0240e-003	8.4000e-004
tblVehicleEF	LDT2	1.4940e-003	1.0080e-003
tblVehicleEF	LDT2	0.04	0.07
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	6.8660e-003	5.6520e-003
tblVehicleEF	LDT2	0.04	0.31
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	2.6120e-003	2.3990e-003

tblVehicleEF	LDT2	5.7500e-004	4.8500e-004
tblVehicleEF	LDT2	0.04	0.07
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.01	8.2050e-003
tblVehicleEF	LDT2	0.04	0.31
tblVehicleEF	LDT2	0.04	0.16
tblVehicleEF	LDT2	3.1650e-003	1.8040e-003
tblVehicleEF	LDT2	2.0740e-003	0.03
tblVehicleEF	LDT2	0.58	0.68
tblVehicleEF	LDT2	0.64	1.71
tblVehicleEF	LDT2	285.89	260.42
tblVehicleEF	LDT2	56.29	48.35
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.04	0.14
tblVehicleEF	LDT2	1.1130e-003	9.1200e-004
tblVehicleEF	LDT2	1.6240e-003	1.0960e-003
tblVehicleEF	LDT2	1.0240e-003	8.4000e-004
tblVehicleEF	LDT2	1.4940e-003	1.0080e-003
tblVehicleEF	LDT2	0.09	0.16
tblVehicleEF	LDT2	0.08	0.10
tblVehicleEF	LDT2	0.06	0.11
tblVehicleEF	LDT2	7.8700e-003	6.4460e-003
tblVehicleEF	LDT2	0.04	0.30
tblVehicleEF	LDT2	0.03	0.12
tblVehicleEF	LDT2	2.8630e-003	2.5760e-003
tblVehicleEF	LDT2	5.7300e-004	4.7800e-004
tblVehicleEF	LDT2	0.09	0.16
tblVehicleEF	LDT2	0.08	0.10
tblVehicleEF	LDT2	0.06	0.11

tblVehicleEF	LDT2	0.01	9.3670e-003
tblVehicleEF	LDT2	0.04	0.30
tblVehicleEF	LDT2	0.03	0.13
tblVehicleEF	LDT2	2.5960e-003	1.4450e-003
tblVehicleEF	LDT2	2.8470e-003	0.04
tblVehicleEF	LDT2	0.43	0.51
tblVehicleEF	LDT2	0.88	2.51
tblVehicleEF	LDT2	251.99	236.05
tblVehicleEF	LDT2	56.29	49.74
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.04	0.16
tblVehicleEF	LDT2	1.1130e-003	9.1200e-004
tblVehicleEF	LDT2	1.6240e-003	1.0960e-003
tblVehicleEF	LDT2	1.0240e-003	8.4000e-004
tblVehicleEF	LDT2	1.4940e-003	1.0080e-003
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	6.4620e-003	5.3310e-003
tblVehicleEF	LDT2	0.05	0.38
tblVehicleEF	LDT2	0.04	0.17
tblVehicleEF	LDT2	2.5220e-003	2.3350e-003
tblVehicleEF	LDT2	5.7700e-004	4.9200e-004
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	9.4150e-003	7.7360e-003
tblVehicleEF	LDT2	0.05	0.38
tblVehicleEF	LDT2	0.04	0.19
tblVehicleEF	LHD1	3.3030e-003	3.4300e-003

tblVehicleEF	LHD1	7.2730e-003	5.1120e-003
tblVehicleEF	LHD1	7.8940e-003	7.1800e-003
tblVehicleEF	LHD1	0.13	0.16
tblVehicleEF	LHD1	0.61	0.50
tblVehicleEF	LHD1	1.27	0.75
tblVehicleEF	LHD1	9.21	8.46
tblVehicleEF	LHD1	631.32	664.88
tblVehicleEF	LHD1	22.81	8.35
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.90	0.51
tblVehicleEF	LHD1	0.53	0.18
tblVehicleEF	LHD1	8.9900e-004	1.0850e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	9.8490e-003
tblVehicleEF	LHD1	4.8600e-004	1.6500e-004
tblVehicleEF	LHD1	8.6000e-004	1.0380e-003
tblVehicleEF	LHD1	2.6370e-003	2.5240e-003
tblVehicleEF	LHD1	0.01	9.3840e-003
tblVehicleEF	LHD1	4.4700e-004	1.5200e-004
tblVehicleEF	LHD1	2.0260e-003	1.7370e-003
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	9.4300e-004	7.9800e-004
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.11	0.03
tblVehicleEF	LHD1	9.1000e-005	8.2000e-005
tblVehicleEF	LHD1	6.1560e-003	6.4670e-003
tblVehicleEF	LHD1	2.5100e-004	8.3000e-005
tblVehicleEF	LHD1	2.0260e-003	1.7370e-003

tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.4300e-004	7.9800e-004
tblVehicleEF	LHD1	0.12	0.10
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.12	0.04
tblVehicleEF	LHD1	3.3030e-003	3.4400e-003
tblVehicleEF	LHD1	7.3480e-003	5.1600e-003
tblVehicleEF	LHD1	7.4550e-003	6.8040e-003
tblVehicleEF	LHD1	0.13	0.16
tblVehicleEF	LHD1	0.61	0.50
tblVehicleEF	LHD1	1.18	0.70
tblVehicleEF	LHD1	9.21	8.46
tblVehicleEF	LHD1	631.32	664.88
tblVehicleEF	LHD1	22.81	8.27
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.85	0.48
tblVehicleEF	LHD1	0.50	0.17
tblVehicleEF	LHD1	8.9900e-004	1.0850e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	9.8490e-003
tblVehicleEF	LHD1	4.8600e-004	1.6500e-004
tblVehicleEF	LHD1	8.6000e-004	1.0380e-003
tblVehicleEF	LHD1	2.6370e-003	2.5240e-003
tblVehicleEF	LHD1	0.01	9.3840e-003
tblVehicleEF	LHD1	4.4700e-004	1.5200e-004
tblVehicleEF	LHD1	4.7920e-003	4.1240e-003
tblVehicleEF	LHD1	0.07	0.06
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	1.8750e-003	1.6030e-003

tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.10	0.03
tblVehicleEF	LHD1	9.1000e-005	8.2000e-005
tblVehicleEF	LHD1	6.1560e-003	6.4670e-003
tblVehicleEF	LHD1	2.5000e-004	8.2000e-005
tblVehicleEF	LHD1	4.7920e-003	4.1240e-003
tblVehicleEF	LHD1	0.07	0.06
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.8750e-003	1.6030e-003
tblVehicleEF	LHD1	0.12	0.10
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.11	0.04
tblVehicleEF	LHD1	3.3030e-003	3.4200e-003
tblVehicleEF	LHD1	7.1910e-003	5.0610e-003
tblVehicleEF	LHD1	8.3800e-003	7.5890e-003
tblVehicleEF	LHD1	0.13	0.16
tblVehicleEF	LHD1	0.60	0.49
tblVehicleEF	LHD1	1.37	0.81
tblVehicleEF	LHD1	9.21	8.46
tblVehicleEF	LHD1	631.32	664.87
tblVehicleEF	LHD1	22.81	8.46
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.92	0.52
tblVehicleEF	LHD1	0.57	0.19
tblVehicleEF	LHD1	8.9900e-004	1.0850e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	9.8490e-003
tblVehicleEF	LHD1	4.8600e-004	1.6500e-004
tblVehicleEF	LHD1	8.6000e-004	1.0380e-003

tblVehicleEF	LHD1	2.6370e-003	2.5240e-003
tblVehicleEF	LHD1	0.01	9.3840e-003
tblVehicleEF	LHD1	4.4700e-004	1.5200e-004
tblVehicleEF	LHD1	7.3900e-004	6.2300e-004
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	4.3600e-004	3.6500e-004
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.15	0.29
tblVehicleEF	LHD1	0.11	0.04
tblVehicleEF	LHD1	9.1000e-005	8.2000e-005
tblVehicleEF	LHD1	6.1560e-003	6.4670e-003
tblVehicleEF	LHD1	2.5300e-004	8.4000e-005
tblVehicleEF	LHD1	7.3900e-004	6.2300e-004
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	4.3600e-004	3.6500e-004
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.15	0.29
tblVehicleEF	LHD1	0.12	0.04
tblVehicleEF	LHD2	2.2910e-003	2.1400e-003
tblVehicleEF	LHD2	5.0030e-003	5.6170e-003
tblVehicleEF	LHD2	2.5640e-003	3.8460e-003
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	0.45	0.56
tblVehicleEF	LHD2	0.82	0.40
tblVehicleEF	LHD2	13.62	13.53
tblVehicleEF	LHD2	666.89	658.82
tblVehicleEF	LHD2	20.75	5.33
tblVehicleEF	LHD2	0.06	0.09

tblVehicleEF	LHD2	0.20	0.62
tblVehicleEF	LHD2	0.23	0.11
tblVehicleEF	LHD2	9.8100e-004	1.5680e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.7600e-003	0.02
tblVehicleEF	LHD2	3.5900e-004	8.3000e-005
tblVehicleEF	LHD2	9.3900e-004	1.5000e-003
tblVehicleEF	LHD2	2.7150e-003	2.7420e-003
tblVehicleEF	LHD2	8.3590e-003	0.02
tblVehicleEF	LHD2	3.3000e-004	7.7000e-005
tblVehicleEF	LHD2	6.8500e-004	8.3500e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.4000e-004	4.1400e-004
tblVehicleEF	LHD2	0.09	0.11
tblVehicleEF	LHD2	0.03	0.11
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	1.3200e-004	1.2900e-004
tblVehicleEF	LHD2	6.4770e-003	6.3420e-003
tblVehicleEF	LHD2	2.2100e-004	5.3000e-005
tblVehicleEF	LHD2	6.8500e-004	8.3500e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.4000e-004	4.1400e-004
tblVehicleEF	LHD2	0.10	0.12
tblVehicleEF	LHD2	0.03	0.11
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	2.2910e-003	2.1460e-003
tblVehicleEF	LHD2	5.0270e-003	5.6390e-003
tblVehicleEF	LHD2	2.5020e-003	3.6460e-003

tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	0.45	0.56
tblVehicleEF	LHD2	0.77	0.37
tblVehicleEF	LHD2	13.62	13.53
tblVehicleEF	LHD2	666.89	658.82
tblVehicleEF	LHD2	20.75	5.28
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.19	0.59
tblVehicleEF	LHD2	0.22	0.10
tblVehicleEF	LHD2	9.8100e-004	1.5680e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.7600e-003	0.02
tblVehicleEF	LHD2	3.5900e-004	8.3000e-005
tblVehicleEF	LHD2	9.3900e-004	1.5000e-003
tblVehicleEF	LHD2	2.7150e-003	2.7420e-003
tblVehicleEF	LHD2	8.3590e-003	0.02
tblVehicleEF	LHD2	3.3000e-004	7.7000e-005
tblVehicleEF	LHD2	1.6100e-003	1.9570e-003
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	6.7700e-004	8.1500e-004
tblVehicleEF	LHD2	0.09	0.11
tblVehicleEF	LHD2	0.03	0.11
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	1.3200e-004	1.2900e-004
tblVehicleEF	LHD2	6.4770e-003	6.3420e-003
tblVehicleEF	LHD2	2.2000e-004	5.2000e-005
tblVehicleEF	LHD2	1.6100e-003	1.9570e-003
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.01	0.02

tblVehicleEF	LHD2	6.7700e-004	8.1500e-004
tblVehicleEF	LHD2	0.10	0.12
tblVehicleEF	LHD2	0.03	0.11
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	2.2910e-003	2.1340e-003
tblVehicleEF	LHD2	4.9760e-003	5.5940e-003
tblVehicleEF	LHD2	2.6330e-003	4.0640e-003
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	0.45	0.56
tblVehicleEF	LHD2	0.89	0.43
tblVehicleEF	LHD2	13.62	13.53
tblVehicleEF	LHD2	666.89	658.81
tblVehicleEF	LHD2	20.75	5.38
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.21	0.63
tblVehicleEF	LHD2	0.23	0.11
tblVehicleEF	LHD2	9.8100e-004	1.5680e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.7600e-003	0.02
tblVehicleEF	LHD2	3.5900e-004	8.3000e-005
tblVehicleEF	LHD2	9.3900e-004	1.5000e-003
tblVehicleEF	LHD2	2.7150e-003	2.7420e-003
tblVehicleEF	LHD2	8.3590e-003	0.02
tblVehicleEF	LHD2	3.3000e-004	7.7000e-005
tblVehicleEF	LHD2	2.4900e-004	3.0800e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	1.5600e-004	1.9300e-004
tblVehicleEF	LHD2	0.09	0.11
tblVehicleEF	LHD2	0.03	0.13

tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	1.3200e-004	1.2900e-004
tblVehicleEF	LHD2	6.4770e-003	6.3420e-003
tblVehicleEF	LHD2	2.2200e-004	5.3000e-005
tblVehicleEF	LHD2	2.4900e-004	3.0800e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.5600e-004	1.9300e-004
tblVehicleEF	LHD2	0.10	0.12
tblVehicleEF	LHD2	0.03	0.13
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	MCY	0.50	0.35
tblVehicleEF	MCY	0.15	0.24
tblVehicleEF	MCY	18.22	18.20
tblVehicleEF	MCY	10.30	9.15
tblVehicleEF	MCY	179.23	217.41
tblVehicleEF	MCY	43.15	59.15
tblVehicleEF	MCY	1.15	1.15
tblVehicleEF	MCY	0.31	0.27
tblVehicleEF	MCY	2.3650e-003	2.3630e-003
tblVehicleEF	MCY	3.1050e-003	2.7270e-003
tblVehicleEF	MCY	2.2060e-003	2.2040e-003
tblVehicleEF	MCY	2.9020e-003	2.5480e-003
tblVehicleEF	MCY	1.51	1.51
tblVehicleEF	MCY	0.83	0.83
tblVehicleEF	MCY	0.70	0.70
tblVehicleEF	MCY	2.33	2.33
tblVehicleEF	MCY	0.26	1.39
tblVehicleEF	MCY	2.09	1.85
tblVehicleEF	MCY	2.1600e-003	2.1510e-003

tblVehicleEF	MCY	6.6100e-004	5.8500e-004
tblVehicleEF	MCY	1.51	1.51
tblVehicleEF	MCY	0.83	0.83
tblVehicleEF	MCY	0.70	0.70
tblVehicleEF	MCY	2.91	2.91
tblVehicleEF	MCY	0.26	1.39
tblVehicleEF	MCY	2.27	2.01
tblVehicleEF	MCY	0.49	0.34
tblVehicleEF	MCY	0.13	0.21
tblVehicleEF	MCY	18.42	18.40
tblVehicleEF	MCY	9.08	8.04
tblVehicleEF	MCY	179.23	217.59
tblVehicleEF	MCY	43.15	56.49
tblVehicleEF	MCY	1.00	1.00
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.3650e-003	2.3630e-003
tblVehicleEF	MCY	3.1050e-003	2.7270e-003
tblVehicleEF	MCY	2.2060e-003	2.2040e-003
tblVehicleEF	MCY	2.9020e-003	2.5480e-003
tblVehicleEF	MCY	3.87	3.87
tblVehicleEF	MCY	1.34	1.35
tblVehicleEF	MCY	1.80	1.80
tblVehicleEF	MCY	2.29	2.29
tblVehicleEF	MCY	0.25	1.35
tblVehicleEF	MCY	1.78	1.58
tblVehicleEF	MCY	2.1620e-003	2.1530e-003
tblVehicleEF	MCY	6.3200e-004	5.5900e-004
tblVehicleEF	MCY	3.87	3.87
tblVehicleEF	MCY	1.34	1.35
tblVehicleEF	MCY	1.80	1.80

tblVehicleEF	MCY	2.86	2.86
tblVehicleEF	MCY	0.25	1.35
tblVehicleEF	MCY	1.94	1.72
tblVehicleEF	MCY	0.51	0.36
tblVehicleEF	MCY	0.18	0.29
tblVehicleEF	MCY	19.46	19.44
tblVehicleEF	MCY	12.03	10.74
tblVehicleEF	MCY	179.23	219.68
tblVehicleEF	MCY	43.15	62.83
tblVehicleEF	MCY	1.25	1.25
tblVehicleEF	MCY	0.34	0.29
tblVehicleEF	MCY	2.3650e-003	2.3630e-003
tblVehicleEF	MCY	3.1050e-003	2.7270e-003
tblVehicleEF	MCY	2.2060e-003	2.2040e-003
tblVehicleEF	MCY	2.9020e-003	2.5480e-003
tblVehicleEF	MCY	0.42	0.42
tblVehicleEF	MCY	0.82	0.82
tblVehicleEF	MCY	0.20	0.20
tblVehicleEF	MCY	2.41	2.41
tblVehicleEF	MCY	0.31	1.67
tblVehicleEF	MCY	2.46	2.19
tblVehicleEF	MCY	2.1830e-003	2.1740e-003
tblVehicleEF	MCY	7.0100e-004	6.2200e-004
tblVehicleEF	MCY	0.42	0.42
tblVehicleEF	MCY	0.82	0.82
tblVehicleEF	MCY	0.20	0.20
tblVehicleEF	MCY	3.02	3.01
tblVehicleEF	MCY	0.31	1.67
tblVehicleEF	MCY	2.68	2.39
tblVehicleEF	MDV	5.0280e-003	2.0260e-003

tblVehicleEF	MDV	6.9270e-003	0.04
tblVehicleEF	MDV	0.65	0.60
tblVehicleEF	MDV	1.42	2.19
tblVehicleEF	MDV	356.48	301.56
tblVehicleEF	MDV	77.10	60.81
tblVehicleEF	MDV	0.06	0.04
tblVehicleEF	MDV	0.11	0.18
tblVehicleEF	MDV	1.2140e-003	9.4300e-004
tblVehicleEF	MDV	1.7640e-003	1.1630e-003
tblVehicleEF	MDV	1.1180e-003	8.6900e-004
tblVehicleEF	MDV	1.6220e-003	1.0700e-003
tblVehicleEF	MDV	0.09	0.10
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.07	0.09
tblVehicleEF	MDV	0.01	7.9330e-003
tblVehicleEF	MDV	0.08	0.40
tblVehicleEF	MDV	0.09	0.19
tblVehicleEF	MDV	3.5650e-003	2.9800e-003
tblVehicleEF	MDV	7.9500e-004	6.0200e-004
tblVehicleEF	MDV	0.09	0.10
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.07	0.09
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.08	0.40
tblVehicleEF	MDV	0.10	0.20
tblVehicleEF	MDV	5.7580e-003	2.3440e-003
tblVehicleEF	MDV	5.7450e-003	0.03
tblVehicleEF	MDV	0.81	0.74
tblVehicleEF	MDV	1.20	1.82
tblVehicleEF	MDV	389.59	319.93

tblVehicleEF	MDV	77.10	60.13
tblVehicleEF	MDV	0.06	0.04
tblVehicleEF	MDV	0.10	0.17
tblVehicleEF	MDV	1.2140e-003	9.4300e-004
tblVehicleEF	MDV	1.7640e-003	1.1630e-003
tblVehicleEF	MDV	1.1180e-003	8.6900e-004
tblVehicleEF	MDV	1.6220e-003	1.0700e-003
tblVehicleEF	MDV	0.21	0.25
tblVehicleEF	MDV	0.18	0.15
tblVehicleEF	MDV	0.14	0.17
tblVehicleEF	MDV	0.01	9.0380e-003
tblVehicleEF	MDV	0.07	0.38
tblVehicleEF	MDV	0.08	0.15
tblVehicleEF	MDV	3.8980e-003	3.1620e-003
tblVehicleEF	MDV	7.9100e-004	5.9500e-004
tblVehicleEF	MDV	0.21	0.25
tblVehicleEF	MDV	0.18	0.15
tblVehicleEF	MDV	0.14	0.17
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.07	0.38
tblVehicleEF	MDV	0.08	0.17
tblVehicleEF	MDV	4.7340e-003	1.8840e-003
tblVehicleEF	MDV	8.0820e-003	0.05
tblVehicleEF	MDV	0.61	0.56
tblVehicleEF	MDV	1.71	2.67
tblVehicleEF	MDV	344.61	294.99
tblVehicleEF	MDV	77.10	61.66
tblVehicleEF	MDV	0.07	0.04
tblVehicleEF	MDV	0.12	0.20
tblVehicleEF	MDV	1.2140e-003	9.4300e-004

tblVehicleEF	MDV	1.7640e-003	1.1630e-003
tblVehicleEF	MDV	1.1180e-003	8.6900e-004
tblVehicleEF	MDV	1.6220e-003	1.0700e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.01	7.4860e-003
tblVehicleEF	MDV	0.09	0.47
tblVehicleEF	MDV	0.11	0.22
tblVehicleEF	MDV	3.4460e-003	2.9150e-003
tblVehicleEF	MDV	8.0000e-004	6.1000e-004
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.09	0.47
tblVehicleEF	MDV	0.12	0.24
tblVehicleEF	MH	7.3410e-003	4.8240e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.38	0.29
tblVehicleEF	MH	3.51	1.48
tblVehicleEF	MH	1,179.93	1,305.16
tblVehicleEF	MH	55.83	14.11
tblVehicleEF	MH	0.86	1.24
tblVehicleEF	MH	0.60	0.23
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.5600e-004	1.9400e-004
tblVehicleEF	MH	3.2250e-003	3.3190e-003
tblVehicleEF	MH	0.01	0.02

tblVehicleEF	MH	7.8700e-004	1.7800e-004
tblVehicleEF	MH	0.58	0.44
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.18	0.14
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	4.3760e-003	0.30
tblVehicleEF	MH	0.21	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.1900e-004	1.4000e-004
tblVehicleEF	MH	0.58	0.44
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.18	0.14
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	4.3760e-003	0.30
tblVehicleEF	MH	0.23	0.07
tblVehicleEF	MH	7.5280e-003	4.9090e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.39	0.29
tblVehicleEF	MH	3.18	1.34
tblVehicleEF	MH	1,179.93	1,305.17
tblVehicleEF	MH	55.83	13.88
tblVehicleEF	MH	0.80	1.17
tblVehicleEF	MH	0.57	0.22
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.5600e-004	1.9400e-004
tblVehicleEF	MH	3.2250e-003	3.3190e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8700e-004	1.7800e-004
tblVehicleEF	MH	1.38	1.04

tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.35	0.27
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	4.3440e-003	0.30
tblVehicleEF	MH	0.20	0.06
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.1400e-004	1.3700e-004
tblVehicleEF	MH	1.38	1.04
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.35	0.27
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	4.3440e-003	0.30
tblVehicleEF	MH	0.21	0.07
tblVehicleEF	MH	7.1340e-003	4.7280e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.37	0.28
tblVehicleEF	MH	3.87	1.63
tblVehicleEF	MH	1,179.93	1,305.15
tblVehicleEF	MH	55.83	14.37
tblVehicleEF	MH	0.88	1.26
tblVehicleEF	MH	0.64	0.25
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.5600e-004	1.9400e-004
tblVehicleEF	MH	3.2250e-003	3.3190e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8700e-004	1.7800e-004
tblVehicleEF	MH	0.21	0.16
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.10	0.08

tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	4.7590e-003	0.33
tblVehicleEF	MH	0.22	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.2500e-004	1.4200e-004
tblVehicleEF	MH	0.21	0.16
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.10	0.08
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	4.7590e-003	0.33
tblVehicleEF	MH	0.25	0.08
tblVehicleEF	MHD	0.02	2.7870e-003
tblVehicleEF	MHD	2.5420e-003	9.5400e-004
tblVehicleEF	MHD	0.03	5.5970e-003
tblVehicleEF	MHD	0.25	0.44
tblVehicleEF	MHD	0.24	0.16
tblVehicleEF	MHD	2.11	0.52
tblVehicleEF	MHD	178.59	87.09
tblVehicleEF	MHD	1,169.14	980.97
tblVehicleEF	MHD	37.34	5.21
tblVehicleEF	MHD	0.48	0.47
tblVehicleEF	MHD	1.07	1.68
tblVehicleEF	MHD	13.97	1.92
tblVehicleEF	MHD	5.1000e-005	1.5300e-004
tblVehicleEF	MHD	3.0030e-003	8.3580e-003
tblVehicleEF	MHD	5.1500e-004	7.0000e-005
tblVehicleEF	MHD	4.9000e-005	1.4700e-004
tblVehicleEF	MHD	2.8670e-003	7.9910e-003
tblVehicleEF	MHD	4.7400e-004	6.4000e-005
tblVehicleEF	MHD	5.7900e-004	2.7400e-004

tblVehicleEF	MHD	0.02	9.6370e-003
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	2.8800e-004	1.3500e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	7.9930e-003	0.05
tblVehicleEF	MHD	0.14	0.03
tblVehicleEF	MHD	1.7120e-003	8.2500e-004
tblVehicleEF	MHD	0.01	9.3380e-003
tblVehicleEF	MHD	4.1000e-004	5.2000e-005
tblVehicleEF	MHD	5.7900e-004	2.7400e-004
tblVehicleEF	MHD	0.02	9.6370e-003
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	2.8800e-004	1.3500e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	7.9930e-003	0.05
tblVehicleEF	MHD	0.15	0.03
tblVehicleEF	MHD	0.02	2.6470e-003
tblVehicleEF	MHD	2.5620e-003	9.6800e-004
tblVehicleEF	MHD	0.03	5.3160e-003
tblVehicleEF	MHD	0.18	0.40
tblVehicleEF	MHD	0.24	0.16
tblVehicleEF	MHD	1.95	0.48
tblVehicleEF	MHD	189.29	86.23
tblVehicleEF	MHD	1,169.14	980.98
tblVehicleEF	MHD	37.34	5.15
tblVehicleEF	MHD	0.49	0.45
tblVehicleEF	MHD	1.02	1.60
tblVehicleEF	MHD	13.95	1.92
tblVehicleEF	MHD	4.3000e-005	1.3400e-004
tblVehicleEF	MHD	3.0030e-003	8.3580e-003

tblVehicleEF	MHD	5.1500e-004	7.0000e-005
tblVehicleEF	MHD	4.1000e-005	1.2800e-004
tblVehicleEF	MHD	2.8670e-003	7.9910e-003
tblVehicleEF	MHD	4.7400e-004	6.4000e-005
tblVehicleEF	MHD	1.3600e-003	6.4500e-004
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	5.7300e-004	2.7000e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	7.9130e-003	0.05
tblVehicleEF	MHD	0.13	0.02
tblVehicleEF	MHD	1.8130e-003	8.1600e-004
tblVehicleEF	MHD	0.01	9.3380e-003
tblVehicleEF	MHD	4.0800e-004	5.1000e-005
tblVehicleEF	MHD	1.3600e-003	6.4500e-004
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	5.7300e-004	2.7000e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	7.9130e-003	0.05
tblVehicleEF	MHD	0.14	0.03
tblVehicleEF	MHD	0.02	2.9150e-003
tblVehicleEF	MHD	2.5200e-003	9.3800e-004
tblVehicleEF	MHD	0.03	5.9220e-003
tblVehicleEF	MHD	0.33	0.49
tblVehicleEF	MHD	0.24	0.16
tblVehicleEF	MHD	2.30	0.57
tblVehicleEF	MHD	164.05	88.35
tblVehicleEF	MHD	1,169.14	980.97
tblVehicleEF	MHD	37.34	5.29

tblVehicleEF	MHD	0.45	0.50
tblVehicleEF	MHD	1.09	1.71
tblVehicleEF	MHD	13.99	1.93
tblVehicleEF	MHD	6.2000e-005	1.8000e-004
tblVehicleEF	MHD	3.0030e-003	8.3580e-003
tblVehicleEF	MHD	5.1500e-004	7.0000e-005
tblVehicleEF	MHD	5.9000e-005	1.7200e-004
tblVehicleEF	MHD	2.8670e-003	7.9910e-003
tblVehicleEF	MHD	4.7400e-004	6.4000e-005
tblVehicleEF	MHD	2.1100e-004	9.9000e-005
tblVehicleEF	MHD	0.02	9.5680e-003
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	1.3300e-004	6.2000e-005
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	8.9260e-003	0.05
tblVehicleEF	MHD	0.14	0.03
tblVehicleEF	MHD	1.5740e-003	8.3600e-004
tblVehicleEF	MHD	0.01	9.3380e-003
tblVehicleEF	MHD	4.1400e-004	5.2000e-005
tblVehicleEF	MHD	2.1100e-004	9.9000e-005
tblVehicleEF	MHD	0.02	9.5680e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	1.3300e-004	6.2000e-005
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	8.9260e-003	0.05
tblVehicleEF	MHD	0.16	0.03
tblVehicleEF	OBUS	0.01	7.3980e-003
tblVehicleEF	OBUS	3.6360e-003	1.9520e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.25	1.02

tblVehicleEF	OBUS	0.29	0.22
tblVehicleEF	OBUS	3.47	1.20
tblVehicleEF	OBUS	214.91	154.29
tblVehicleEF	OBUS	1,286.45	1,161.63
tblVehicleEF	OBUS	57.44	10.33
tblVehicleEF	OBUS	0.52	0.76
tblVehicleEF	OBUS	0.89	1.38
tblVehicleEF	OBUS	4.72	1.36
tblVehicleEF	OBUS	4.8000e-005	2.6100e-004
tblVehicleEF	OBUS	2.9060e-003	9.3820e-003
tblVehicleEF	OBUS	8.6900e-004	1.2000e-004
tblVehicleEF	OBUS	4.6000e-005	2.5000e-004
tblVehicleEF	OBUS	2.7600e-003	8.9620e-003
tblVehicleEF	OBUS	7.9900e-004	1.1000e-004
tblVehicleEF	OBUS	1.5860e-003	1.4070e-003
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	5.4000e-004	4.8700e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.02	0.18
tblVehicleEF	OBUS	0.23	0.06
tblVehicleEF	OBUS	2.0610e-003	1.4610e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	6.3500e-004	1.0200e-004
tblVehicleEF	OBUS	1.5860e-003	1.4070e-003
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.05	0.09
tblVehicleEF	OBUS	5.4000e-004	4.8700e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.02	0.18

tblVehicleEF	OBUS	0.25	0.07
tblVehicleEF	OBUS	0.01	7.5720e-003
tblVehicleEF	OBUS	3.6940e-003	1.9990e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.24	1.01
tblVehicleEF	OBUS	0.29	0.23
tblVehicleEF	OBUS	3.15	1.08
tblVehicleEF	OBUS	226.84	152.32
tblVehicleEF	OBUS	1,286.45	1,161.64
tblVehicleEF	OBUS	57.44	10.14
tblVehicleEF	OBUS	0.54	0.73
tblVehicleEF	OBUS	0.84	1.32
tblVehicleEF	OBUS	4.68	1.36
tblVehicleEF	OBUS	4.0000e-005	2.3200e-004
tblVehicleEF	OBUS	2.9060e-003	9.3820e-003
tblVehicleEF	OBUS	8.6900e-004	1.2000e-004
tblVehicleEF	OBUS	3.9000e-005	2.2200e-004
tblVehicleEF	OBUS	2.7600e-003	8.9620e-003
tblVehicleEF	OBUS	7.9900e-004	1.1000e-004
tblVehicleEF	OBUS	3.7340e-003	3.2900e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.08
tblVehicleEF	OBUS	1.0490e-003	9.2400e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.02	0.18
tblVehicleEF	OBUS	0.21	0.06
tblVehicleEF	OBUS	2.1740e-003	1.4420e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	6.3000e-004	1.0000e-004
tblVehicleEF	OBUS	3.7340e-003	3.2900e-003

tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.09
tblVehicleEF	OBUS	1.0490e-003	9.2400e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.02	0.18
tblVehicleEF	OBUS	0.23	0.06
tblVehicleEF	OBUS	0.01	7.1640e-003
tblVehicleEF	OBUS	3.5730e-003	1.9000e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.27	1.04
tblVehicleEF	OBUS	0.29	0.22
tblVehicleEF	OBUS	3.82	1.32
tblVehicleEF	OBUS	198.43	157.01
tblVehicleEF	OBUS	1,286.45	1,161.62
tblVehicleEF	OBUS	57.44	10.53
tblVehicleEF	OBUS	0.50	0.82
tblVehicleEF	OBUS	0.91	1.41
tblVehicleEF	OBUS	4.76	1.37
tblVehicleEF	OBUS	5.8000e-005	3.0200e-004
tblVehicleEF	OBUS	2.9060e-003	9.3820e-003
tblVehicleEF	OBUS	8.6900e-004	1.2000e-004
tblVehicleEF	OBUS	5.6000e-005	2.8900e-004
tblVehicleEF	OBUS	2.7600e-003	8.9620e-003
tblVehicleEF	OBUS	7.9900e-004	1.1000e-004
tblVehicleEF	OBUS	5.8500e-004	5.3800e-004
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	2.9300e-004	2.7000e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.02	0.19

tblVehicleEF	OBUS	0.24	0.06
tblVehicleEF	OBUS	1.9030e-003	1.4870e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	6.4100e-004	1.0400e-004
tblVehicleEF	OBUS	5.8500e-004	5.3800e-004
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.05	0.08
tblVehicleEF	OBUS	2.9300e-004	2.7000e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.02	0.19
tblVehicleEF	OBUS	0.26	0.07
tblVehicleEF	SBUS	0.83	0.02
tblVehicleEF	SBUS	3.7660e-003	2.2730e-003
tblVehicleEF	SBUS	0.05	1.8370e-003
tblVehicleEF	SBUS	3.63	1.45
tblVehicleEF	SBUS	0.30	0.18
tblVehicleEF	SBUS	2.57	0.23
tblVehicleEF	SBUS	1,260.89	286.86
tblVehicleEF	SBUS	1,105.32	919.78
tblVehicleEF	SBUS	23.82	1.36
tblVehicleEF	SBUS	4.32	2.11
tblVehicleEF	SBUS	1.35	2.19
tblVehicleEF	SBUS	16.95	1.63
tblVehicleEF	SBUS	8.8300e-004	1.1050e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	4.9470e-003	0.02
tblVehicleEF	SBUS	4.1200e-004	2.0000e-005
tblVehicleEF	SBUS	8.4400e-004	1.0570e-003
tblVehicleEF	SBUS	2.7610e-003	2.8110e-003
tblVehicleEF	SBUS	4.7220e-003	0.02

tblVehicleEF	SBUS	3.7900e-004	1.8000e-005
tblVehicleEF	SBUS	2.5770e-003	4.0500e-004
tblVehicleEF	SBUS	0.02	2.5150e-003
tblVehicleEF	SBUS	0.44	0.11
tblVehicleEF	SBUS	9.1100e-004	1.4300e-004
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	6.8250e-003	0.02
tblVehicleEF	SBUS	0.14	9.4880e-003
tblVehicleEF	SBUS	0.01	2.7180e-003
tblVehicleEF	SBUS	0.01	8.7550e-003
tblVehicleEF	SBUS	2.8300e-004	1.3000e-005
tblVehicleEF	SBUS	2.5770e-003	4.0500e-004
tblVehicleEF	SBUS	0.02	2.5150e-003
tblVehicleEF	SBUS	0.63	0.15
tblVehicleEF	SBUS	9.1100e-004	1.4300e-004
tblVehicleEF	SBUS	0.07	0.05
tblVehicleEF	SBUS	6.8250e-003	0.02
tblVehicleEF	SBUS	0.16	0.01
tblVehicleEF	SBUS	0.83	0.02
tblVehicleEF	SBUS	3.8090e-003	2.2920e-003
tblVehicleEF	SBUS	0.04	1.4840e-003
tblVehicleEF	SBUS	3.55	1.42
tblVehicleEF	SBUS	0.31	0.19
tblVehicleEF	SBUS	1.74	0.15
tblVehicleEF	SBUS	1,328.83	288.46
tblVehicleEF	SBUS	1,105.32	919.78
tblVehicleEF	SBUS	23.82	1.24
tblVehicleEF	SBUS	4.45	2.10
tblVehicleEF	SBUS	1.29	2.09
tblVehicleEF	SBUS	16.93	1.63

tblVehicleEF	SBUS	7.4400e-004	9.4500e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	4.9470e-003	0.02
tblVehicleEF	SBUS	4.1200e-004	2.0000e-005
tblVehicleEF	SBUS	7.1200e-004	9.0400e-004
tblVehicleEF	SBUS	2.7610e-003	2.8110e-003
tblVehicleEF	SBUS	4.7220e-003	0.02
tblVehicleEF	SBUS	3.7900e-004	1.8000e-005
tblVehicleEF	SBUS	5.9940e-003	9.4400e-004
tblVehicleEF	SBUS	0.02	2.6190e-003
tblVehicleEF	SBUS	0.43	0.11
tblVehicleEF	SBUS	1.7120e-003	2.6900e-004
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	5.9680e-003	0.01
tblVehicleEF	SBUS	0.11	7.6520e-003
tblVehicleEF	SBUS	0.01	2.7340e-003
tblVehicleEF	SBUS	0.01	8.7550e-003
tblVehicleEF	SBUS	2.6900e-004	1.2000e-005
tblVehicleEF	SBUS	5.9940e-003	9.4400e-004
tblVehicleEF	SBUS	0.02	2.6190e-003
tblVehicleEF	SBUS	0.62	0.15
tblVehicleEF	SBUS	1.7120e-003	2.6900e-004
tblVehicleEF	SBUS	0.07	0.05
tblVehicleEF	SBUS	5.9680e-003	0.01
tblVehicleEF	SBUS	0.13	8.3780e-003
tblVehicleEF	SBUS	0.83	0.02
tblVehicleEF	SBUS	3.7250e-003	2.2540e-003
tblVehicleEF	SBUS	0.06	2.1570e-003
tblVehicleEF	SBUS	3.73	1.48
tblVehicleEF	SBUS	0.30	0.18

tblVehicleEF	SBUS	3.39	0.30
tblVehicleEF	SBUS	1,167.08	284.65
tblVehicleEF	SBUS	1,105.32	919.77
tblVehicleEF	SBUS	23.82	1.48
tblVehicleEF	SBUS	4.13	2.13
tblVehicleEF	SBUS	1.38	2.24
tblVehicleEF	SBUS	16.96	1.63
tblVehicleEF	SBUS	1.0740e-003	1.3270e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	4.9470e-003	0.02
tblVehicleEF	SBUS	4.1200e-004	2.0000e-005
tblVehicleEF	SBUS	1.0270e-003	1.2700e-003
tblVehicleEF	SBUS	2.7610e-003	2.8110e-003
tblVehicleEF	SBUS	4.7220e-003	0.02
tblVehicleEF	SBUS	3.7900e-004	1.8000e-005
tblVehicleEF	SBUS	9.8900e-004	1.5500e-004
tblVehicleEF	SBUS	0.02	2.5120e-003
tblVehicleEF	SBUS	0.44	0.11
tblVehicleEF	SBUS	5.0800e-004	8.0000e-005
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	8.5910e-003	0.02
tblVehicleEF	SBUS	0.17	0.01
tblVehicleEF	SBUS	0.01	2.6980e-003
tblVehicleEF	SBUS	0.01	8.7550e-003
tblVehicleEF	SBUS	2.9700e-004	1.5000e-005
tblVehicleEF	SBUS	9.8900e-004	1.5500e-004
tblVehicleEF	SBUS	0.02	2.5120e-003
tblVehicleEF	SBUS	0.63	0.15
tblVehicleEF	SBUS	5.0800e-004	8.0000e-005
tblVehicleEF	SBUS	0.07	0.05

tblVehicleEF	SBUS	8.5910e-003	0.02
tblVehicleEF	SBUS	0.18	0.01
tblVehicleEF	UBUS	0.72	1.89
tblVehicleEF	UBUS	0.06	0.05
tblVehicleEF	UBUS	3.92	13.88
tblVehicleEF	UBUS	8.69	3.39
tblVehicleEF	UBUS	1,790.75	1,467.43
tblVehicleEF	UBUS	146.64	32.98
tblVehicleEF	UBUS	2.28	0.32
tblVehicleEF	UBUS	11.97	0.35
tblVehicleEF	UBUS	0.49	0.11
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.04	2.6450e-003
tblVehicleEF	UBUS	1.4640e-003	4.4000e-004
tblVehicleEF	UBUS	0.21	0.05
tblVehicleEF	UBUS	3.0000e-003	3.7370e-003
tblVehicleEF	UBUS	0.04	2.4940e-003
tblVehicleEF	UBUS	1.3470e-003	4.0500e-004
tblVehicleEF	UBUS	6.0860e-003	2.8280e-003
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	2.7610e-003	1.2900e-003
tblVehicleEF	UBUS	0.14	0.03
tblVehicleEF	UBUS	0.01	0.14
tblVehicleEF	UBUS	0.82	0.19
tblVehicleEF	UBUS	0.01	7.4950e-003
tblVehicleEF	UBUS	1.6270e-003	3.2600e-004
tblVehicleEF	UBUS	6.0860e-003	2.8280e-003
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	2.7610e-003	1.2900e-003
tblVehicleEF	UBUS	0.87	1.93

tblVehicleEF	UBUS	0.01	0.14
tblVehicleEF	UBUS	0.89	0.21
tblVehicleEF	UBUS	0.72	1.89
tblVehicleEF	UBUS	0.05	0.04
tblVehicleEF	UBUS	3.93	13.88
tblVehicleEF	UBUS	7.04	2.75
tblVehicleEF	UBUS	1,790.75	1,467.44
tblVehicleEF	UBUS	146.64	31.90
tblVehicleEF	UBUS	2.16	0.31
tblVehicleEF	UBUS	11.88	0.33
tblVehicleEF	UBUS	0.49	0.11
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.04	2.6450e-003
tblVehicleEF	UBUS	1.4640e-003	4.4000e-004
tblVehicleEF	UBUS	0.21	0.05
tblVehicleEF	UBUS	3.0000e-003	3.7370e-003
tblVehicleEF	UBUS	0.04	2.4940e-003
tblVehicleEF	UBUS	1.3470e-003	4.0500e-004
tblVehicleEF	UBUS	0.01	6.8100e-003
tblVehicleEF	UBUS	0.08	0.03
tblVehicleEF	UBUS	5.3930e-003	2.7060e-003
tblVehicleEF	UBUS	0.14	0.03
tblVehicleEF	UBUS	0.01	0.13
tblVehicleEF	UBUS	0.72	0.17
tblVehicleEF	UBUS	0.01	7.4950e-003
tblVehicleEF	UBUS	1.5980e-003	3.1600e-004
tblVehicleEF	UBUS	0.01	6.8100e-003
tblVehicleEF	UBUS	0.08	0.03
tblVehicleEF	UBUS	5.3930e-003	2.7060e-003
tblVehicleEF	UBUS	0.87	1.93

tblVehicleEF	UBUS	0.01	0.13
tblVehicleEF	UBUS	0.79	0.18
tblVehicleEF	UBUS	0.72	1.89
tblVehicleEF	UBUS	0.07	0.05
tblVehicleEF	UBUS	3.90	13.87
tblVehicleEF	UBUS	10.53	4.09
tblVehicleEF	UBUS	1,790.75	1,467.42
tblVehicleEF	UBUS	146.64	34.18
tblVehicleEF	UBUS	2.34	0.33
tblVehicleEF	UBUS	12.07	0.38
tblVehicleEF	UBUS	0.49	0.11
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.04	2.6450e-003
tblVehicleEF	UBUS	1.4640e-003	4.4000e-004
tblVehicleEF	UBUS	0.21	0.05
tblVehicleEF	UBUS	3.0000e-003	3.7370e-003
tblVehicleEF	UBUS	0.04	2.4940e-003
tblVehicleEF	UBUS	1.3470e-003	4.0500e-004
tblVehicleEF	UBUS	2.3130e-003	9.8700e-004
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	1.4800e-003	6.1500e-004
tblVehicleEF	UBUS	0.14	0.03
tblVehicleEF	UBUS	0.01	0.17
tblVehicleEF	UBUS	0.92	0.21
tblVehicleEF	UBUS	0.01	7.4950e-003
tblVehicleEF	UBUS	1.6590e-003	3.3800e-004
tblVehicleEF	UBUS	2.3130e-003	9.8700e-004
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	1.4800e-003	6.1500e-004
tblVehicleEF	UBUS	0.87	1.93

tblVehicleEF	UBUS	0.01	0.17
tblVehicleEF	UBUS	1.00	0.23
tblVehicleTrips	CC_TL	7.30	7.89
tblVehicleTrips	CC_TL	7.30	7.88
tblVehicleTrips	CC_TL	7.30	7.89
tblVehicleTrips	CC_TTP	48.00	100.00
tblVehicleTrips	CC_TTP	28.00	100.00
tblVehicleTrips	CC_TTP	64.40	100.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	7.50	0.00
tblVehicleTrips	HO_TL	7.50	0.00
tblVehicleTrips	HO_TTP	35.70	0.00
tblVehicleTrips	HO_TTP	35.70	0.00
tblVehicleTrips	HS_TL	7.30	0.00

tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HS_TTP	17.40	0.00
tblVehicleTrips	HS_TTP	17.40	0.00
tblVehicleTrips	HW_TL	10.80	11.67
tblVehicleTrips	HW_TL	10.80	11.67
tblVehicleTrips	HW_TTP	46.90	100.00
tblVehicleTrips	HW_TTP	46.90	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	79.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	6.39	7.02
tblVehicleTrips	ST_TR	2.46	2.36
tblVehicleTrips	ST_TR	2.49	2.20
tblVehicleTrips	ST_TR	9.91	10.08
tblVehicleTrips	ST_TR	42.04	23.63
tblVehicleTrips	SU_TR	5.86	6.44
tblVehicleTrips	SU_TR	1.05	1.01
tblVehicleTrips	SU_TR	0.73	0.64
tblVehicleTrips	SU_TR	8.62	8.65
tblVehicleTrips	SU_TR	20.43	11.48
tblVehicleTrips	WD_TR	6.65	7.31
tblVehicleTrips	WD_TR	11.03	10.59
tblVehicleTrips	WD_TR	6.83	6.02

tblVehicleTrips	WD_TR	9.52	11.40
tblVehicleTrips	WD_TR	44.32	24.91
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction

- Construction modeled separately

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	20.6645	0.7701	12.6789	4.6600e-003		0.1197	0.1197		0.1197	0.1197	0.0000	746.4057	746.4057	0.0333	0.0133	751.2055
Energy	0.2528	2.1781	1.0502	0.0138		0.1747	0.1747		0.1747	0.1747	0.0000	5,336.1696	5,336.1696	0.3701	0.1125	5,378.9560

Mobile	9.0026	20.3755	95.0013	0.3397	43.1155	0.2407	43.3562	11.5551	0.2261	11.7812	0.0000	31,534.3573	31,534.3573	1.0118	0.0000	31,559.6517
Waste						0.0000	0.0000		0.0000	0.0000	253.1033	0.0000	253.1033	14.9580	0.0000	627.0528
Water						0.0000	0.0000		0.0000	0.0000	114.9683	249.3999	364.3682	3.3290	0.2559	523.8466
Total	**29.9198**	**23.3237**	**108.7304**	**0.3582**	**43.1155**	**0.5351**	**43.6506**	**11.5551**	**0.5205**	**12.0756**	**368.0716**	**37,866.3326**	**38,234.4042**	**19.7022**	**0.3817**	**38,840.7126**

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	20.1604	0.7701	12.6789	4.6600e-003		0.1197	0.1197		0.1197	0.1197	0.0000	746.4057	746.4057	0.0333	0.0133	751.2055
Energy	0.2528	2.1781	1.0502	0.0138		0.1747	0.1747		0.1747	0.1747	0.0000	5,336.1696	5,336.1696	0.3701	0.1125	5,378.9560
Mobile	9.0026	20.3755	95.0013	0.3397	43.1155	0.2407	43.3562	11.5551	0.2261	11.7812	0.0000	31,534.3573	31,534.3573	1.0118	0.0000	31,559.6517
Waste						0.0000	0.0000		0.0000	0.0000	253.1033	0.0000	253.1033	14.9580	0.0000	627.0528
Water						0.0000	0.0000		0.0000	0.0000	114.9683	249.3999	364.3682	3.3290	0.2559	523.8466
Total	**29.4158**	**23.3237**	**108.7304**	**0.3582**	**43.1155**	**0.5351**	**43.6506**	**11.5551**	**0.5205**	**12.0756**	**368.0716**	**37,866.3326**	**38,234.4042**	**19.7022**	**0.3817**	**38,840.7126**

	ROG	**NOx**	**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	**1.68**	**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 modeled separately

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Mitigated	9.0026	20.3755	95.0013	0.3397	43.1155	0.2407	43.3562	11.5551	0.2261	11.7812	0.0000	31,534.3573	31,534.3573	1.0118	0.0000	31,559.6517
Unmitigated	9.0026	20.3755	95.0013	0.3397	43.1155	0.2407	43.3562	11.5551	0.2261	11.7812	0.0000	31,534.3573	31,534.3573	1.0118	0.0000	31,559.6517

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	211.99	203.58	186.76	880,094	880,094
General Office Building	2,702.57	602.27	257.75	5,896,899	5,896,899
Industrial Park	3,724.27	1,361.03	395.94	8,350,225	8,350,225
Single Family Housing	18,775.80	16,601.76	14246.55	75,689,521	75,689,521
Strip Mall	9,191.79	8,719.47	4236.12	24,171,457	24,171,457
Total	34,606.42	27,488.11	19,323.12	114,988,196	114,988,196

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
Apartments Mid Rise	11.67	0.00	0.00	100.00	0.00	0.00	100	0	0
General Office Building	0.00	7.89	0.00	0.00	100.00	0.00	100	0	0
Industrial Park	0.00	7.88	0.00	0.00	100.00	0.00	100	0	0
Single Family Housing	11.67	0.00	0.00	100.00	0.00	0.00	100	0	0
Strip Mall	0.00	7.89	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH

Apartments Mid Rise	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
General Office Building	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
Industrial Park	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
Single Family Housing	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
Strip Mall	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539

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	2,834.3946	2,834.3946	0.3222	0.0667	2,862.3141
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,834.3946	2,834.3946	0.3222	0.0667	2,862.3141
NaturalGas Mitigated	0.2528	2.1781	1.0502	0.0138		0.1747	0.1747		0.1747	0.1747	0.0000	2,501.7751	2,501.7751	0.0480	0.0459	2,516.6419
NaturalGas Unmitigated	0.2528	2.1781	1.0502	0.0138		0.1747	0.1747		0.1747	0.1747	0.0000	2,501.7751	2,501.7751	0.0480	0.0459	2,516.6419

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					

Apartments Mid Rise	335995	1.8100e-003	0.0155	6.5900e-003	1.0000e-004		1.2500e-003	1.2500e-003		1.2500e-003	1.2500e-003	0.0000	17.9300	17.9300	3.4000e-004	3.3000e-004	18.0365
General Office Building	2.35294e+006	0.0127	0.1153	0.0969	6.9000e-004		8.7700e-003	8.7700e-003		8.7700e-003	8.7700e-003	0.0000	125.5621	125.5621	2.4100e-003	2.3000e-003	126.3082
Industrial Park	723821	3.9000e-003	0.0355	0.0298	2.1000e-004		2.7000e-003	2.7000e-003		2.7000e-003	2.7000e-003	0.0000	38.6258	38.6258	7.4000e-004	7.1000e-004	38.8554
Single Family Housing	4.04761e+007	0.2183	1.8651	0.7937	0.0119		0.1508	0.1508		0.1508	0.1508	0.0000	2,159.9612	2,159.9612	0.0414	0.0396	2,172.7968
Strip Mall	2.99259e+006	0.0161	0.1467	0.1232	8.8000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	159.6960	159.6960	3.0600e-003	2.9300e-003	160.6450
Total		**0.2528**	**2.1781**	**1.0502**	**0.0138**		**0.1747**	**0.1747**		**0.1747**	**0.1747**	**0.0000**	**2,501.7751**	**2,501.7751**	**0.0480**	**0.0459**	**2,516.6419**

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					
Apartments Mid Rise	335995	1.8100e-003	0.0155	6.5900e-003	1.0000e-004		1.2500e-003	1.2500e-003		1.2500e-003	1.2500e-003	0.0000	17.9300	17.9300	3.4000e-004	3.3000e-004	18.0365
General Office Building	2.35294e+006	0.0127	0.1153	0.0969	6.9000e-004		8.7700e-003	8.7700e-003		8.7700e-003	8.7700e-003	0.0000	125.5621	125.5621	2.4100e-003	2.3000e-003	126.3082
Industrial Park	723821	3.9000e-003	0.0355	0.0298	2.1000e-004		2.7000e-003	2.7000e-003		2.7000e-003	2.7000e-003	0.0000	38.6258	38.6258	7.4000e-004	7.1000e-004	38.8554
Single Family Housing	4.04761e+007	0.2183	1.8651	0.7937	0.0119		0.1508	0.1508		0.1508	0.1508	0.0000	2,159.9612	2,159.9612	0.0414	0.0396	2,172.7968
Strip Mall	2.99259e+006	0.0161	0.1467	0.1232	8.8000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	159.6960	159.6960	3.0600e-003	2.9300e-003	160.6450
Total		**0.2528**	**2.1781**	**1.0502**	**0.0138**		**0.1747**	**0.1747**		**0.1747**	**0.1747**	**0.0000**	**2,501.7751**	**2,501.7751**	**0.0480**	**0.0459**	**2,516.6419**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	128969	14.9243	1.7000e-003	3.5000e-004	15.0713
General Office Building	2.12582e+006	246.0005	0.0280	5.7900e-003	248.4236
Industrial Park	5.15335e+006	596.3487	0.0678	0.0140	602.2229
Single Family Housing	1.43141e+007	1,656.4377	0.1883	0.0390	1,672.7540
Strip Mall	2.77119e+006	320.6835	0.0365	7.5400e-003	323.8423
Total		**2,834.3946**	**0.3222**	**0.0667**	**2,862.3141**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	128969	14.9243	1.7000e-003	3.5000e-004	15.0713
General Office Building	2.12582e+006	246.0005	0.0280	5.7900e-003	248.4236
Industrial Park	5.15335e+006	596.3487	0.0678	0.0140	602.2229
Single Family Housing	1.43141e+007	1,656.4377	0.1883	0.0390	1,672.7540
Strip Mall	2.77119e+006	320.6835	0.0365	7.5400e-003	323.8423
Total		**2,834.3946**	**0.3222**	**0.0667**	**2,862.3141**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Mitigated	20.1604	0.7701	12.6789	4.6600e-003		0.1197	0.1197		0.1197	0.1197	0.0000	746.4057	746.4057	0.0333	0.0133	751.2055
Unmitigated	20.6645	0.7701	12.6789	4.6600e-003		0.1197	0.1197		0.1197	0.1197	0.0000	746.4057	746.4057	0.0333	0.0133	751.2055

6.2 Area by SubCategory

Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Architectural Coating	3.6739					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	16.5455					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0734	0.6269	0.2668	4.0000e-003		0.0507	0.0507		0.0507	0.0507	0.0000	726.0556	726.0556	0.0139	0.0133	730.3702
Landscaping	0.3718	0.1432	12.4121	6.6000e-004		0.0691	0.0691		0.0691	0.0691	0.0000	20.3501	20.3501	0.0194	0.0000	20.8353

Total	**20.6645**	**0.7701**	**12.6789**	**4.6600e-003**		**0.1197**	**0.1197**		**0.1197**	**0.1197**	**0.0000**	**746.4057**	**746.4057**	**0.0333**	**0.0133**	**751.2055**

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	3.1698					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	16.5455					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0734	0.6269	0.2668	4.0000e-003		0.0507	0.0507		0.0507	0.0507	0.0000	726.0556	726.0556	0.0139	0.0133	730.3702
Landscaping	0.3718	0.1432	12.4121	6.6000e-004		0.0691	0.0691		0.0691	0.0691	0.0000	20.3501	20.3501	0.0194	0.0000	20.8353
Total	**20.1604**	**0.7701**	**12.6789**	**4.6600e-003**		**0.1197**	**0.1197**		**0.1197**	**0.1197**	**0.0000**	**746.4057**	**746.4057**	**0.0333**	**0.0133**	**751.2055**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	364.3682	3.3290	0.2559	523.8466
Unmitigated	364.3682	3.3290	0.2559	523.8466

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.88947 / 1.19119	2.3341	0.0194	1.4900e-003	3.2635
General Office Building	45.3577 / 27.7999	55.7085	0.4652	0.0358	78.0167
Industrial Park	143.063 / 0	140.1966	1.4633	0.1122	210.2092
Single Family Housing	107.309 / 67.6511	132.5589	1.1007	0.0848	185.3440
Strip Mall	27.3328 / 16.7523	33.5702	0.2804	0.0216	47.0133
Total		**364.3683**	**3.3290**	**0.2559**	**523.8466**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.88947 / 1.19119	2.3341	0.0194	1.4900e-003	3.2635
General Office Building	45.3577 / 27.7999	55.7085	0.4652	0.0358	78.0167
Industrial Park	143.063 / 0	140.1966	1.4633	0.1122	210.2092
Single Family Housing	107.309 / 67.6511	132.5589	1.1007	0.0848	185.3440
Strip Mall	27.3328 / 16.7523	33.5702	0.2804	0.0216	47.0133

Total		364.3683	3.3290	0.2559	523.8466

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	253.1033	14.9580	0.0000	627.0528
Unmitigated	253.1033	14.9580	0.0000	627.0528

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	5.6	1.1368	0.0672	0.0000	2.8163
General Office Building	90.19	18.3078	1.0820	0.0000	45.3567
Industrial Park	291.51	59.1739	3.4971	0.0000	146.6008
Single Family Housing	712.15	144.5600	8.5433	0.0000	358.1413

Strip Mall	147.42	29.9249	1.7685	0.0000	74.1377
Total		**253.1033**	**14.9580**	**0.0000**	**627.0528**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	5.6	1.1368	0.0672	0.0000	2.8163
General Office Building	90.19	18.3078	1.0820	0.0000	45.3567
Industrial Park	291.51	59.1739	3.4971	0.0000	146.6008
Single Family Housing	712.15	144.5600	8.5433	0.0000	358.1413
Strip Mall	147.42	29.9249	1.7685	0.0000	74.1377
Total		**253.1033**	**14.9580**	**0.0000**	**627.0528**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX D: SPECIAL-STATUS SPECIES TABLE

TABLE D-1

SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Planning Area
		PLANTS		
Agrostis hendersonii	Henderson's bent grass	none/none/CNPS list 3.2	This species occurs in vernal pools and mesic areas of valley and foothill grassland in Calaveras, Merced, Shasta, and Tehama counties. It blooms from April to May.	**No Potential.** No vernal pools or other mesic areas in valley and foothill grassland are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.
Astragalus tener var. *tener*	alkali milk-vetch	none/none/CNPS list 1B.2	This milkvetch occurs in alkali playa, valley and foothill grassland, and vernal pools of the southern Sacramento Valley, northern San Joaquin Valley, and San Francisco Bay-Delta. It flowers from March to June.	**No Potential.** No alkali playa, valley and foothill grassland, or vernal pools are located within the planning area. Therefore, suitable habitat for this taxon does not occur within the planning area and it has no potential to occur within the planning area.
Atriplex cordulata var. *cordulata*	heartscale	none/none/CNPS list 1B.2	This annual saltbush occurs in chenopod scrub, valley and foothill grassland, and vernal pools (typically on alkaline soils and frequently in scalded areas). It is known from Alameda, Contra Costa, Butte, Fresno, Glenn, Kings, Kern, Madera, Merced,	**No Potential.** No chenopod scrub, valley and foothill grassland, or vernal pools are located within the planning area. Therefore, suitable habitat for this taxon does not occur within the planning area and it has no potential to occur within the planning area.

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SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Planning Area
			San Joaquin, Solano, Stanislaus, Tulare, and Yolo counties.	
Atriplex minuscula	lesser saltscale	none/none/CNPS list 1B.1	This annual saltbush grows in sandy alkaline areas in chenopod scrub, playas, and valley and foothill grassland. It blooms from May to October. It is known from only five locations in Butte, Fresno, Madera, Merced, and Tulare counties.	**No Potential.** No chenopod scrub, valley and foothill grassland, or playas are located within the planning area. Therefore, suitable habitat for this taxon does not occur within the planning area and it has no potential to occur within the planning area.
Atriplex persistens	vernal pool smallscale	none/none/CNPS list 1B.2	This annual saltbush occurs in alkaline vernal pools. It has been recorded from Glenn, Merced, Solano, Stanislaus, and Tulare counties. It blooms from July to October.	**No Potential.** No alkaline vernal pools are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.
Brasenia schreberi	watershield	none/none/CNPS list 2B.3	This aquatic perennial rhizomatous herb occurs in freshwater marshes and swamps. It blooms from June to September and is widely distributed from Tulare County north to Siskiyou County.	**No Potential.** No freshwater marshes are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.

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SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Planning Area
Calycadenia hooveri	Hoover's calycadenia	none/none/CNPS list 1B.3	This is an annual herb that blooms from July to September. It occurs in valley and foothill grassland (particularly in rocky soils). It has been recorded in Calaveras, Madera, Merced, Mariposa, and Stanislaus counties.	**No Potential.** No valley and foothill grasslands are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.
Castilleja campestris ssp. *succulenta*	succulent owl's-clover	FT/SE/CNPS list 1B.2	This taxon is currently known from sites in eastern Merced, southeastern Stanislaus, Madera, San Joaquin and northern Fresno counties where it occurs on the margins of vernal pools, swales, and some seasonal wetlands (often on acidic soils). It blooms in May.	**No Potential.** No vernal pools, swales, or other seasonal wetlands are located within the planning area. Therefore, suitable habitat for this subspecies does not occur within the planning area and it has no potential to occur within the planning area.
Clarkia rostrata	beaked clarkia	FT/none/CNPS list 1B.3	The species is an annual that blooms from April to May and occurs in valley and foothill grassland and cismontane woodland. It has been recorded in Merced, Mariposa, Stanislaus, and Tuolumne counties.	**No Potential.** No valley and foothill grasslands or cismontane woodlands are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.

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SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Planning Area
Cuscuta obtusiflora var. *glandulosa*	Peruvian dodder	none /none/CNPS list 2.2	This annual (parasitic) taxon is associated with freshwater wetlands and has been recorded in Butte, Merced, San Bernardino, and Sonoma counties, but not since 1948. It blooms from July to October.	**No Potential.** No freshwater wetlands are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.
Downingia pusilla	dwarf downingia	none/none/CNPS list 2.2	This annual herb blooms from March to May and is known from Merced, Mariposa, Napa, Placer, Sacramento, Solano, Sonoma, Stanislaus, Tehama, and Yuba counties. It occurs in vernal pools and mesic grasslands.	**No Potential.** No vernal pools or mesic grasslands. are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.
Etriplex joaquiniana	San Joaquin spearscale	none/none/CNPS list 1B.2	This annual saltbush occurs in chenopod scrub, valley and foothill grassland, and alkali meadows (typically in seasonal alkali wetlands or alkali sink scrub). It is found in the Sacramento Valley, northern San Joaquin Valley, San Francisco Bay-Delta, and central Coast Ranges. It blooms from April to September.	**No Potential.** No chenopod scrub, valley and foothill grassland, or alkali meadows are located within the planning area. Therefore, suitable habitat for this taxon does not occur within the planning area and it has no potential to occur within the planning area.

TABLE D-1 SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY				
Genus/Species	**Common Name**	**Status Federal/CA/Other**	**Habitats and Seasonal Distribution in California**	**Likelihood of Occurrence within Planning Area**
Euphorbia hooveri	Hoover's spurge	FT/none/CNPS list 1B.2	An annual herb that occurs in association with large vernal pools. It has been recorded below 820 feet in elevation in Tulare, Merced, Stanislaus, Butte, Glenn, and Tehama counties. It blooms mostly during July, but flowering may persist as late as October if enough moisture is available.	**No Potential.** No vernal pools are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.
Eryngium racemosum	Delta button-celery	none/SE/CNPS list 1B.1	This annual and perennial species occurs in wet riparian areas and freshwater wetlands (typically on seasonally inundated clay). It has been documented in the northern San Joaquin Valley (Merced to Calaveras counties) and in Contra Costa, Marin, and Sonoma counties. Blooming occurs during June to September.	**No Potential.** No freshwater wetlands or wet riparian areas are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.
Eryngium spinosepalum	spiny-sepaled button-celery	none/none/CNPS list 1B.2	This perennial species occurs in wet valley and foothill grassland and vernal pools. Known occurrences have been found in the San Joaquin Valley (Kern to Stanislaus counties), Contra Costa County, and along the Central Coast	**No Potential.** No wet valley and foothill grasslands or vernal pools are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no

TABLE D-1 SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY				
Genus/Species	**Common Name**	**Status Federal/CA/Other**	**Habitats and Seasonal Distribution in California**	**Likelihood of Occurrence within Planning Area**
			(Monterey and San Luis Obispo counties). Blooming occurs during April to May.	potential to occur within the planning area.
Lagophylla dichotoma	forked hare-leaf	none/none/CNPS list 1B.1	The species is an annual that blooms from April to September and occurs in valley and foothill grassland and cismontane woodland (often on clay). It has been recorded in Butte, Calaveras, Fresno, Merced, Monterey, San Benito and Stanislaus counties.	**No Potential.** No valley and foothill grasslands or cismontane woodlands are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	none/none/CNPS list 1B.1	This annual taxon is associated with marshes and swamps (coastal salt), playas, and vernal pools. It blooms from February to June. It has been recorded in Colusa, Kern, Los Angeles, Merced, Orange, Riverside, Santa Barbara, San Bernardino, San Diego, San Luis Obispo, Tehama, Tulare, Ventura, and Yolo counties.	**No Potential.** No marshes and swamps (coastal salt), playas, or vernal pools are located within the planning area. Therefore, suitable habitat for this subspecies does not occur within the planning area and it has no potential to occur within the planning area.
Lepidium latipes var. *heckardii*	Heckard's pepper-grass	none/none/CNPS list 1B.2	This annual herb is associated with alkaline flats in valley and foothill grasslands. It blooms from April to May. It occurs in Glenn, Solano, and	**No Potential.** No alkaline flats in valley and foothill grasslands are located within the planning area. Therefore, suitable habitat for this species does not occur

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SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Planning Area
			Yolo counties.	within the planning area and it has no potential to occur within the planning area.
Navarettia prostrata	prostrate vernal pool navarretia	none/none/CNPS list 1B.1	This species occurs on alkaline soils or in vernal pools in valley and foothill grassland and coastal scrub. It has been recorded in Merced, Alameda, and Monterey counties as well as southern coastal California (Los Angeles, San Bernardino, Orange, and San Diego counties). The species blooms from April to May.	**No Potential.** No alkaline soils or vernal pools in valley and foothill grassland or coastal scrub are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.
Navarretia nigelliformis ssp. *radians*	shining navarretia	none/none/CNPS list 1B.2	The subspecies is an annual herb that occurs in vernal pools in valley and foothill grassland and cismontane woodland, but no further north than Merced County in the eastern San Joaquin Valley. It blooms from March to July and has been found in Fresno, Merced, Monterey, San Benito, and San Luis Obispo counties.	**No Potential.** No vernal pools in valley and foothill grasslands or cismontane woodlands are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.
Neostapfia colusana	Colusa grass	FT/SE/CNPS list 1B.1	This grass occurs in vernal pools (typically larger or more persistent pools) and some manmade wetlands	**No Potential.** No vernal pools or manmade wetlands (e.g., stock ponds) in valley and foothill grasslands are located within the

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SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Planning Area
			(e.g., stock ponds) within valley and foothill grassland. It is distributed primarily along the eastern margin of the San Joaquin Valley in Stanislaus and Merced counties, but also occurs in Solano and Yolo counties. It flowers from May to July.	planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.
Orcuttia pilosa	hairy orcutt grass	FE/SE/CNPS list 1B.1	This grass occurs in vernal pools (typically larger or more persistent pools) within valley and foothill grassland. It is distributed along the eastern margin of the Sacramento and San Joaquin valleys from Tehama County south to Stanislaus, Merced, and Madera counties. It flowers from May to September.	**No Potential.** No vernal pools or manmade wetlands (e.g., stock ponds) in valley and foothill grasslands are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.
Orcuttia inaequalis	San Joaquin Valley orcutt grass	FT/SE/CNPS list 1B.2	This grass occurs in vernal pools (typically larger or more persistent pools) within valley and foothill grassland. The remaining populations of this species occur mostly in the southeastern San Joaquin Valley (Fresno, Merced, and Madera counties). Historically, the species also occurred in Stanislaus County. It	**No Potential.** No vernal pools or manmade wetlands (e.g., stock ponds) in valley and foothill grasslands are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.

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SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Planning Area
			flowers from April to September.	
Phacelia ciliata var. *opaca*	Merced phacelia	none/none/CNPS list 1B.2	This taxon occurs in valley and foothill grassland (typically on clay soils, sometimes on alkaline soils). It blooms from February to May and is known from fewer than 10 extant occurrences in Merced and Kings counties.	**No Potential.** No valley and foothill grasslands are located within the planning area. Therefore, suitable habitat for this taxon does not occur within the planning area and it has no potential to occur within the planning area.
Pseudobahia bahiifolia	Hartweg's golden sunburst	FE/SE/CNPS list 1B.1	The species occurs in cismontane woodland and valley and foothill grassland (almost always on shallow, well-drained, fine-textured soils on the north or northeast facing side of Mima mounds). It has been recorded in Fresno, Madera, Tulare, and Stanislaus counties. Blooming occurs during March to April.	**No Potential.** No cismontane woodlands or valley and foothill grasslands (particularly on shallow, well-drained, fine-textured soils on the north or northeast facing side of Mima mounds) are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.
Puccinellia simplex	California alkali grass	none/none/CNPS list 1B.2	This annual herb occurs in alkaline, vernally mesic; sinks, flats, and lake margins in chenopod scrub, meadows and seeps, valley and foothill grassland, and vernal pools. It has been recorded in Alameda, Butte, Contra Costa, Colusa, Fresno, Glenn,	**No Potential.** No alkaline, vernally mesic sinks, flats, and lake margins in chenopod scrub, meadows and seeps, valley and foothill grasslands, or vernal pools are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and

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SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Planning Area
			King, Kern, Lake, Los Angeles, Madera, Merced, Napa, San Bernardino, Santa Clara, Santa Cruz, San Luis Obispo, Solano, Stanislaus, Tulare, and Yolo counties. It blooms from March to May.	it has no potential to occur within the planning area.
Sagittaria sanfordii	Sanford's arrowhead	none/none/CNPS list 1B.2	This perennial species occurs in shallow, standing, fresh water and slow-moving waterways (e.g., marshes, ponds, vernal pools, lakes, reservoirs, sloughs, ditches, unlined canals, streams, and rivers) at elevations below 2,000 feet. Though not found in Stanislaus County, occurrences have been documented from Shasta County to Tulare County on the valley floor and surrounding foothills. It blooms from late May to August.	**Low Potential.** No individuals of this species have been recorded within the planning area. However, it has been found in ditches and unlined canals elsewhere in the region (mostly east and south of Winton). Given that the planning area supports a large number of ditches and unlined canals, the species has some potential, albeit low, to occur within the planning area.
Sidalcea keckii	Keck's checkerbloom	FE/none/CNPS list 1B.1	This species is an annual that occurs on serpentine-derived clay soils in valley and foothill grassland and cismontane woodland. It blooms from April to June and has been recorded in Colusa, Fresno, Merced, Napa, Solano, Tulare, and Yolo counties, but is currently	**No Potential.** No valley and foothill grasslands or cismontane woodlands are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.

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SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Planning Area
			known from only Fresno and Tulare counties near Pine Flat Reservoir.	
Tuctoria greenei	Greene's tuctoria	FE/CR/CNPS list 1B.1	This grass occurs in the dry bottoms of vernal pools in valley and foothill grassland. It is known to occur in Butte, Glenn, Merced, Shasta, and Tehama counties. Historically, it also occurred in Fresno, Madera, Stanislaus, San Joaquin, and Tulare counties. No known occurrences are now extant in Stanislaus County. It flowers from May through July.	**No Potential.** No vernal pools in valley and foothill grasslands are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.
INVERTEBRATES				
Branchinecta conservatio	Conservancy fairy shrimp	FE/none/none	This species occurs in very large turbid vernal pools and playa pools underlain by clay substrates. There are relatively few occurrences of the species, but it is known from Tehama, Glenn, Solano, Stanislaus, and Merced counties with the only occurrence in Stanislaus County on the Mapes Ranch northeast of the intersection of Highway 132 and Mapes Ranch Road.	**No Potential.** No large turbid vernal pools or playa pools are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.

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SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Planning Area
Branchinecta lynchii	vernal pool fairy shrimp	FT/none/none	Occurs primarily in vernal pools (sandstone depression, grass swale, earth slump, or basalt-flow depression pools) in grassland and oak savannah of the Central Valley. However, the species also occurs at a few locations in the central Coast Ranges from Monterey County south to Santa Barbara County and in the South Coast Mountains in Riverside County.	**No Potential.** No vernal pools or other suitable seasonal wetlands are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.
Branchinecta mesovallensis	midvalley fairy shrimp	none/SA/none	This species occurs in small vernal pools and intermound pools within valley and foothill grassland (i.e., the smallest and most ephemeral vernal pools). It has been recorded from the central portion of the Central Valley from Sacramento and Solano counties south to Madera and Fresno counties.	**No Potential.** No vernal pools or other suitable seasonal wetlands are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.
Lepidurus packardi	vernal pool tadpole shrimp	FE/none/none	Inhabits clear to turbid vernal pools and swales, stock ponds, and other seasonal wetlands in the Sacramento Valley and northern San Joaquin Valley (from Shasta County south to Merced and Tulare counties). It has	**No Potential.** No vernal pools, other suitable seasonal wetlands, or stock ponds are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the

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SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Planning Area
			also been recorded in three pools at the San Francisco Bay National Wildlife Refuge in Alameda County.	planning area.
Linderiella occidentalis	California fairy shrimp	none/SA/none	Occurs primarily in vernal pools and other seasonal wetlands in grassland and oak savannah of the Central Valley. However, the species has also been recorded at scattered locations in the Coast Ranges from Mendocino County south to Ventura County.	**No Potential.** No vernal pools or other suitable seasonal wetlands are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.
Desmocerus californicus dimorphus	valley elderberry longhorn beetle	FT/none/none	The subspecies occurs at scattered locations in the Central Valley and adjacent foothills of the Sierra Nevada and Coast Ranges from Shasta to Fresno counties. The subspecies is entirely dependent upon its host plant (elderberry spp.), typically in riparian vegetation associations, but occasionally in single, isolated shrubs or stands of the plant.	**Low Potential.** No individuals of this subspecies have been recorded within the planning area. However, it has been found in small patches of riparian and other non-riparian habitats elsewhere in the region. Given that the planning area contains such habitats, the subspecies has some potential, albeit low, to occur within the planning area.
Lytta molesta	Molestan blister beetle	none/SA/none	Occurs primarily in scattered vernal pools and other seasonal wetlands in valley and foothill grassland and oak	**No Potential.** No vernal pools or other seasonal wetlands in valley and foothill grassland or oak savannah are located

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SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Planning Area
			savannah of the Central Valley (April to July). However, the species has also been recorded at scattered locations in the Coast Ranges from Mendocino County south to Ventura County.	within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.
		FISHES		
Mylopharodon conocephalus	hardhead	none/CSC/none	This species' distribution is limited to the Sacramento-San Joaquin River system and Russian River system. It inhabits deep, rocky and sandy pools of small to large rivers where spawning substrate includes sand, gravel, and decomposed granite. Spawning occurs as early as May and June in the valley but extends to August in the foothill regions of the upper San Joaquin River (e.g., Tuolumne River downstream of the La Grange Dam).	**No Potential.** No rivers are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.
Oncorhynchus mykiss irideus	Steelhead - Central Valley DPS	FT/none/none	This distinct population segment (DPS) of steelhead includes all naturally spawned populations of steelhead (and their progeny) in the Sacramento and San Joaquin Rivers and their	**No Potential.** No rivers or other suitable waters for this DPS are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to

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SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Planning Area
			tributaries, excluding steelhead from San Francisco Bay and San Pablo Bays and their tributaries. Small runs typically occur on the Tuolumne River, while the DPS is rare in the Stanislaus River. Peak spawning occurs from December through April in small streams and tributaries with cool, well-oxygenated water. Fry usually emerge from the gravel 4 to 6 weeks after hatching, but factors such as redd depth, gravel size, siltation, and temperature can speed or retard this time. The newly emerged fry move to the shallow, protected areas associated with the stream margin (mainly in riffles), but they can use a variety of other habitat types.	occur within the planning area.
AMPHIBIANS				
Ambystoma californiense	California tiger salamander	FT/ST/none	Found in annual grassland, oak savannah, and coastal sage scrub adjacent to vernal pools, stock ponds, and ponded reaches of ephemeral streams (aquatic breeding sites). The species is distributed in the Central	**No Potential.** No annual grassland, oak savannah, or coastal sage scrub adjacent to vernal pools, stock ponds, or ponded reaches of ephemeral streams are located within the planning area. Therefore, suitable habitat for this species does not

TABLE D-1 SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY				
Genus/Species	**Common Name**	**Status Federal/CA/Other**	**Habitats and Seasonal Distribution in California**	**Likelihood of Occurrence within Planning Area**
			Valley from Glenn County to Kings County, but also occurs in Sonoma County and Alameda and Contra Costa counties south through the interior valleys of the Coast Ranges.	occur within the planning area and it has no potential to occur within the planning area.
Spea hammondii	western spadefoot	none/CSC/none	Found in dry habitats (e.g., annual grassland, oak savannah and woodland, and coastal sage scrub) adjacent to vernal pools, stock ponds, and overflow channels of low-gradient drainages within the Central Valley and coastal California from Monterey County to San Diego County.	**No Potential.** No annual grassland, oak savannah and woodland, or coastal sage scrub adjacent to vernal pools, stock ponds, or overflow channels of low-gradient drainages are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.
REPTILES				
Emys marmorata	western pond turtle	none/CSC/none	The species historically occurred throughout most of the Pacific-slope drainages in California (below approximately 4,000 feet). The species now occurs at scattered locations throughout its former range (primarily in the central Sierra Nevada foothills, Central Valley, San Francisco Bay	**Low Potential.** No individuals of this species have been recorded within the planning area. However, it has been found in canals, agricultural sumps, and other man-made wetlands elsewhere in the region. Given that the planning area contains such habitats, the subspecies has some potential, albeit low, to occur within

TABLE D-1 SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY				
Genus/Species	**Common Name**	**Status Federal/CA/Other**	**Habitats and Seasonal Distribution in California**	**Likelihood of Occurrence within Planning Area**
			area, and north-central coast and Coast Ranges. It occurs in and adjacent to ponds, reservoirs, or other slow-moving perennial aquatic habitats (e.g., sloughs, streams, and rivers).	the planning area.
Anniella pulchra	northern California legless lizard	none/CSC/none	This species complex occurs as a fossorial species in sand, sandy loam, or leaf-mold substrates in the San Joaquin Valley and coastal California from Contra Costa County south to San Diego County. It can be found in a variety of habitats that include coastal beach, chaparral, pine-oak woodland, and riparian habitats. Soil moisture is essential. It appears to be active mostly during the morning and evening, just beneath the surface of sunlight-warmed substrate. It may also be active on the surface at night when substrate temperatures remain warm for extended intervals. It should be noted that recent mitochondrial and nuclear DNA work has resulted in the species being split into five distinct species with the local species (*A. pulchra*) occurring from the southern edge of the San Joaquin River in	**No Potential.** No coastal beach, chaparral, pine-oak woodland, or riparian habitats with sand, sandy loam, or leaf-mold substrates are located within the planning area. Furthermore, agriculture in the area has fragmented the planning area from potentially suitable habitat elsewhere in the region. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.

TABLE D-1

SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Planning Area
			northern Contra Costa County south to Ventura County, south of which there is a wide area where the species of *Anniella* is or are unknown. It also occurs in scattered locations in the San Joaquin Valley, along the southern Sierra Nevada mountains, and on the desert side of the Tehachapi Mountains and part of the San Gabriel Mountains.	
Phrynosoma blainvillii	coast horned lizard	none/CSC/none	Found at scattered locations throughout coastal California from the San Francisco Bay area to Ventura and northern Los Angeles counties. Also occurs along the Sierra Nevada foothills in the Sacramento Valley and throughout the San Joaquin Valley. Requires open natural vegetation communities for basking, loose soils for burial, and ants as a prey base.	**No Potential.** No open natural vegetation communities with suitable substrates are located within the planning area. Furthermore, agriculture in the area has fragmented the planning area from potentially suitable habitat elsewhere in the region. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.
Thamnophis gigas	giant garter snake	FT/ST/none	Found in low gradient streams, marshes, and adjacent ricelands where there is abundant vegetative cover. Furthermore, the habitat is supported by perennial fresh water. The species is limited to the floor of the Central	**No Potential**. No suitable habitat for the species (i.e., low gradient streams, marshes, and canals) occurs within the planning area. In addition, there are no known extant occurrences from the vicinity of the planning area (i.e., the nearest known extant

TABLE D-1 SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY				
Genus/Species	**Common Name**	**Status Federal/CA/Other**	**Habitats and Seasonal Distribution in California**	**Likelihood of Occurrence within Planning Area**
			Valley where it occurs in fragmented populations.	population is at least 18 miles away). Therefore, the species is considered to have no potential to occur within the planning area.
BIRDS				
Ardea alba	great egret (nesting)	none/SA/none	This species is common throughout most of California where there are shallow estuaries, or freshwater or saltwater emergent wetlands. However, it is less common above the foothills in the mountains and in desert regions. Rookeries are typically active from March to as late as July and occur in the tops of secluded large snags or live trees. Rookeries are sometime shared with great blue heron or other large wading birds.	**No Potential.** There are no known nesting colonies of this species located within the planning area. In addition, suitable nesting habitat for this species (i.e., secluded large snags or large stands of live trees) does not occur within the planning area. So, it has no potential to occur within the planning area.
Ardea herodias	great blue heron (nesting)	none/SA/none	This species is common throughout most of California where there are shallow estuaries, or freshwater or saltwater emergent wetlands. However, it is less common along riverine and rocky coastal shores and	**No Potential.** There are no known nesting colonies of this species located within the planning area. In addition, suitable nesting habitat for this species (i.e., secluded large snags or large stands of live trees) does not occur within the planning area. So, it has

TABLE D-1

SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Planning Area
			above the foothills in the mountains. Rookeries are typically active from February to as late as July and occur in the tops of secluded large snags or live trees. Rookeries are sometime shared with great egret or other large wading birds.	no potential to occur within the planning area.
Egretta thula	Snowy egret (nesting)	none/SA/none	This species is widespread throughout most of California where there are shallow estuaries, freshwater or saltwater emergent wetlands, ponds, slow-moving rivers, irrigation ditches, or wet fields. However, it is less common above the foothills in the mountains and in desert regions. Rookeries are typically active from late March to as late as August and occur in dense marshes or low in secluded snags or live trees. Rookeries are sometime shared with the great blue heron or other large wading birds.	**No Potential.** There are no known nesting colonies of this species located within the planning area. In addition, suitable nesting habitat for this species (i.e., secluded large snags, stands of live trees, or dense freshwater marsh) does not occur within the planning area. So, it has no potential to occur within the planning area.
Buteo regalis	ferruginous hawk (wintering)	none/none/BCC	The species is a winter resident of the Modoc Plateau, Central Valley, and Coast Ranges. It forages in large, open tracts of grasslands, sparse scrubland,	**No Potential.** No individuals of this species have been recorded within the planning area. In addition, the species prefers to winter in large, open habitat

TABLE D-1

SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Planning Area
			and deserts.	(mostly grasslands) where there are abundant prey populations. Given that the planning area contains mostly urban and agricultural lands, the species is considered to have no potential to occur within the planning area.
Buteo swainsoni	Swainson's hawk (nesting)	none/ST/none	Occurs in California as a breeding resident in the Central Valley (primarily in the southern Sacramento and northern San Joaquin valleys), Klamath Basin, and Modoc Plateau. However, nesting pairs are also occasionally found in the Mojave Desert, Lanfair Valley (San Bernardino County), Antelope Valley (Los Angeles County), and eastern San Luis Obispo County. In the Central Valley the species typically nests in riparian woodland or forest stands, or oak savannah. Nest territories are located adjacent to suitable foraging habitat (e.g., grassland, suitable grain and row crop fields, alfalfa, and pastures).	**Moderate Potential.** No active nests of this species have been recorded within the planning area. However, the planning area contains numerous large trees that could be used as nest sites by the species. In addition, there are patches of weedy vegetation as well as suitable agricultural crops in the planning area that could support prey for the species. As such, the species is considered to have a moderate potential to nest within the planning area.

TABLE D-1 SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY				
Genus/Species	**Common Name**	**Status Federal/CA/Other**	**Habitats and Seasonal Distribution in California**	**Likelihood of Occurrence within Planning Area**
Circus hudsonius	northern harrier (nesting)	none/CSC/none	The species is found as a resident and wintering species throughout the lower elevation portions of California in annual grasslands, oak savannah, and valley and coastal marshes. Nesting in the Central Valley typically occurs in emergent wetlands; tall, dense grasslands; or grain fields.	**No Potential.** No individuals of this species have been recorded within the planning area. In addition, the species prefers to nest in large, open habitats (mostly grasslands) where there are abundant prey populations. Given that the planning area contains mostly urban and agricultural lands, the species is considered to have no potential to nest within the planning area.
Haliaeetus leucocephalus	bald eagle	none/SE/BCC	The species winters throughout much of California at lakes, reservoirs, rivers, and some rangelands and coastal wetlands. Nesting occurs mainly in mountain and foothill forests and woodlands near reservoirs, lakes, and rivers. Most current nest territories are in northern California, but the species also nests in scattered locations in the central and southern Sierra Nevada mountains and foothills, in several locations in the central Coast Ranges, inland southern California, and on Santa Catalina Island. In most of California, the nesting season lasts	**No Potential.** No individuals of this species have been recorded within the planning area. In addition, no suitable nesting or wintering habitat is found within the planning area given that the area contains mostly urban and agricultural lands. Therefore, the species is considered to have no potential to occur within the planning area.

TABLE D-1

SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Planning Area
			from January through July or August.	
Pandion haliaetus	osprey	none/CSC/none	The species nests in northern California from the Cascade Ranges south through the Sierra Nevada, and along the coast south to Marin County. Nesting occurs from March to September with nests being sited at the top of large snags or dead-topped trees on cliffs, or on manmade structures (e.g., telephone or power poles).	**No Potential.** No individuals of this species have been recorded within the planning area. In addition, no suitable nesting or wintering habitat is found within the planning area given that the area contains provides no sources of open water with an established fish population. Therefore, the species is considered to have no potential to occur within the planning area.
Falco columbarius	merlin (wintering)	none/SA/none	This species winters in California from September to May. It occurs in a variety of low elevation, relative flat habitats that include wooded areas, coastlines, open grasslands, savannah, and the periphery of lakes. It is less often found in open desert. It typically requires dense stands of trees for cover and roosting. It is most often found where there are substantial populations of small birds (the primary prey item).	**No Potential.** No individuals of this species have been recorded within the planning area. In addition, no suitable wintering habitat is found within the planning area given that the area contains mostly urban and agricultural uses. In addition, much more suitable habitat occurs in the foothills to the east of the planning area. Therefore, the species is considered to have no potential to occur within the planning area.

TABLE D-1 SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY				
Genus/Species	**Common Name**	**Status Federal/CA/Other**	**Habitats and Seasonal Distribution in California**	**Likelihood of Occurrence within Planning Area**
Charadrius montanus	mountain plover (wintering)	none/CSC/BCC	The species occurs in California only as a wintering species where it is found on low, sparse grasslands or disked agricultural fields that are remote from urban development or disturbances. Mountain plovers are most frequently reported from two areas: (1) in the San Joaquin Valley south of Sacramento County; and (2) in the Imperial Valley.	**No Potential.** No individuals of this species have been recorded within the planning area. In addition, the species prefers to winter in large, open habitats (mostly grasslands or large, disked agricultural fields). The species is also relatively intolerant of human activities. Therefore, the planning area, which contains mostly urban and agricultural lands, is considered to have no potential to be occupied by the species.
Athene cunicularia	burrowing owl (burrow sites)	none/CSC/none	The species is found throughout the Central Valley, in the San Francisco Bay Area, at scattered locations along the coast, and in portions of the desert regions. It is a year-round resident in annual and perennial grasslands or other vegetation communities that support sparse or non-existent tree or shrub canopies.	**Low Potential.** No individuals of this species have been recorded within the planning area. However, the species has been found on the edges of agricultural fields where disking does not occur, on small in-fill lots on the edge of urban development, and along canal levees. It is also relatively urban tolerant. Therefore, it is considered to have a low potential to occur in the planning area.
Picoides nuttallii	Nuttall's woodpecker	none/SA/none	The species occurs as a resident of low-elevation riparian deciduous and oak habitats (cismontane woodland)	**Low Potential.** No individuals of this species have been recorded within the planning area. However, the species often

TABLE D-1

SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Planning Area
	(nesting)		throughout much of California apart from the deserts, high Sierra Nevada, and redwood belt.	occurs in urban areas with mature trees (particularly oaks). It is also relatively urban tolerant. Therefore, it is considered to have some potential, albeit low, to occur in the planning area.
Pica nuttalli	yellow-billed magpie (nesting and communal roosts)	none/SA/none	Found as resident and wintering species throughout the lower elevation portions of California in grasslands, saltbush scrub, chaparral, oak savannah, and other open woodland types near water (generally where there are large trees with dense cover for nesting and roosts).	**Low Potential.** There are a small number of records for this species within the planning area. In addition, the species often occurs in urban areas with mature trees (particularly oaks). It is also relatively urban tolerant. Therefore, it is considered to have some potential, albeit low, to occur in the planning area.
Baeolophus inornatus	oak titmouse (nesting)	none/SA/none	Occurs as a common resident throughout much of California other than the deserts, high Sierra Nevada, and redwood belt. It is generally found in cismontane woodland (particularly oak or riparian woodlands) where it nests in the cavities created by woodpeckers.	**Low Potential.** No individuals of this species have been recorded within the planning area. However, the species often occurs in urban areas with mature trees (particularly oaks). It is also relatively urban tolerant. Therefore, it is considered to have some potential, albeit low, to occur in the planning area.

TABLE D-1

SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Planning Area
Vireo bellii pusillus	least Bell's vireo (nesting)	FE/SE/none	Found as a summer resident (late March to late August) in coastal valleys from Monterey County south through coastal southern California to San Diego County. Also occurs at scattered locations along the western border of the deserts. There have been recent records from the Sacramento Valley given its recovery in southern California. It typically nests in dense willow riparian communities but is also occasionally found in live oak stands adjacent to drainages.	**No Potential.** No individuals of this species have been recorded within the planning area. In addition, no suitable nesting habitat is found within the planning area (i.e., dense riparian willow stands). Lastly, the subspecies had been extirpated from the Central Valley and is just now being found as a rare and occasional nesting species. Therefore, the species is considered to have no potential to occur within the planning area.
Lanius ludovicianus	loggerhead shrike (nesting)	none/CSC/none	Found as a resident and wintering species throughout the lower elevation portions of California in grasslands, saltbush scrub, chaparral, oak savannah, and other open woodland types (generally where there are trees with dense cover for nesting).	**Low Potential.** No individuals of this species have been recorded within the planning area. However, the species has been found nesting on the edge of agricultural fields where disking does not occur and on small in-fill lots on the edge of urban development where there are dense shrubs or trees adjacent to open habitats for hunting. Given the presence of conditions, as describe above in the planning area, it is considered to have a low potential to occur in the planning area.

TABLE D-1

SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Planning Area
Icteria virens	yellow-breasted chat (nesting)	none/CSC/none	This species is found as a summer resident mostly in low to mid-elevation coastal, valley, foothill, and desert riparian habitats (up to 4,800 feet in foothill riparian and 6,500 feet east of the Sierra Nevada). Nesting typically occurs in dense vegetation adjacent to streams.	**No Potential.** No individuals of this species have been recorded within the planning area. In addition, no suitable nesting habitat occurs within the planning area (i.e., dense willow stands sometimes mixed with blackberry stands). Therefore, the species is considered to have no potential to occur within the planning area.
Agelaius tricolor	tricolored blackbird (nesting)	none/ST/none	Found as a resident species in annual grassland, oak savannah, and freshwater marsh within the Central Valley and coastal California from Sonoma to San Diego County. Nesting typically occurs in emergent freshwater marsh, but also occurs in dense stands of willow, blackberry, thistle, nettles, or grasses. Grasslands or rangeland providing abundant food (e.g., butterfly larvae or grasshoppers) often are within at least three miles of colonies, but the species can forage up to eight miles from their nesting colony.	**No Potential.** No individuals of this colonial species have been recorded within the planning area. In addition, no suitable nesting habitat occurs within the planning area (e.g., dense riparian willow stands or stands of spiny, prickly vegetation such milk thistle, stinging nettle, blackberry, etc.). Furthermore, the species requires large, open habitats with abundant prey species. Given the lack of necessary habitat components for the species in the planning area, it is considered to have no potential to occur within the planning area.

TABLE D-1 SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY				
Genus/Species	**Common Name**	**Status Federal/CA/Other**	**Habitats and Seasonal Distribution in California**	**Likelihood of Occurrence within Planning Area**
		MAMMALS		
Perognathus inornatus	San Joaquin pocket mouse	none/SA/none	This taxon typically occurs on fine-textured sandy soils on ridge tops and hillsides supporting grasslands or blue oak savannah. The species *P. inornatus* is distributed within the Central Valley from Yolo and Sutter counties to the southern-most portions of the San Joaquin Valley and within and near the dry interior valleys of the Coast Range (e.g., Salinas and Cuyama valleys, and Carrizo Plain).	**No Potential.** No soils on ridge tops and hillsides supporting grasslands or blue oak savannah are located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.
Dipodomys heermanni dixoni	Merced kangaroo rat	none/SA/none	The subspecies has been documented in valley and foothill grassland and oak savannah (typically on sandy soils in areas denuded of vegetation) in eastern Merced County, southeastern Stanislaus County, and southwestern Mariposa County.	**No Potential.** No open, sandy soils in valley and foothill grassland or oak savannah are located within the planning area (almost all the existing land cover is in urban and agricultural uses). Therefore, suitable habitat for this species does not occur within the planning area and the species has no potential to occur within the planning area.

TABLE D-1 SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY				
Genus/Species	**Common Name**	**Status Federal/CA/Other**	**Habitats and Seasonal Distribution in California**	**Likelihood of Occurrence within Planning Area**
Antrozous pallidus	pallid bat	none/CSC/none	The species is found as a resident in all desert, grassland, shrub, woodland, and forest habitats from sea level to approximately 6,000 feet. Day roosts are typically found in buildings, bridges, rocky outcrops, mines, caves, and trees. Night roosts are generally provided by bridges, mines, and caves.	**Low Potential.** No roosts for this species have been recorded within the planning area. However, suitable day or night roosts (even suitable buildings) occur within the planning area. Therefore, the species cannot be discounted from occurring within the planning area and is considered to have some potential, albeit low, to occur in the area.
Eumops perotis californicus	western mastiff bat	none/CSC/none	The taxon is found as an uncommon resident in southern California, but also occurs along the lower west slope of the Sierra Nevada and in the interior Coast Ranges as far north as the Tumey Hills (eastern San Benito County). Roosts are typically found in crevices in cliff faces, cracks in boulders, or occasionally in buildings (particularly where the roost allows for a large vertical drop).	**No Potential.** No roosts for this subspecies have been recorded within the planning area. In addition, suitable day and night roosts typically occur in rocky cliffs or similar habitat where there is a clear vertical drop to become airborne. Such habitat does not occur within the planning area and the subspecies is therefore considered to have no potential to occur in the planning area.
Lasiurus blossevillii	western red bat	none/CSC/none	The species occurs at scattered locations throughout the lowland portions of California west of the Sierra Nevada crest and desert regions	**Low Potential.** No roosts for this species have been recorded within the planning area. However, suitable day or night roosts (large trees with undisturbed ground-level

TABLE D-1 SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY				
Genus/Species	**Common Name**	**Status Federal/CA/Other**	**Habitats and Seasonal Distribution in California**	**Likelihood of Occurrence within Planning Area**
			(typically in riparian forest or orchards). It is less abundant at low and middle elevations in coniferous forest. Roosting sites are found in tree or shrub foliage between 2 and 40 feet above ground (usually in large walnuts, cottonwoods, sycamores, or willows).	vegetation) occur within the planning area. Therefore, the species cannot be discounted from occurring within the planning area and is considered to have some potential, albeit low, to occur in the area.
Lasiurus cinereus	hoary bat	none/SA/none	The species occurs in a wide variety of habitats throughout California from sea level to the high mountains. It is typically found in small numbers roosting in the dense foliage of medium to large trees near water in forest or woodland habitats.	**Low Potential.** No roosts for this species have been recorded within the planning area. However, suitable day or night roosts (particularly during migration) occur within the planning area. Therefore, the species cannot be discounted from occurring within the planning area and is considered to have some potential, albeit low, to occur in the area.
Myotis yumanensis	Yuma myotis	none/SA/none	Found in a variety of habitats with nearby sources of water over which the species forages. Day roosts are found in caves, mines, buildings, or crevices. Night roosts are typically associated with bridges, buildings, and other man-made structures.	**Low Potential.** No roosts for this species have been recorded within the planning area. However, suitable day or night roosts (e.g., suitable buildings) occur within the planning area. Therefore, the species cannot be discounted from occurring within the planning area and is considered to have some potential, albeit low, to occur in the area.

TABLE D-1

SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Planning Area
Vulpes macrotis mutica	San Joaquin kit fox	FE/ST/none	The taxon is found in the San Joaquin Valley from Contra Costa County south to Kern County. It is also found in the dry interior valleys of the Coast Ranges (e.g., Salinas and Santa Clara valleys). It occurs in open, sparsely vegetated areas of low relief (typically in native or non-native grassland or alkali sink scrub).	**Low Potential.** There are a few historic occurrences of the taxon from the area surrounding Winton, but individuals found in this area are generally considered to be transients when found to the far north on the east side of the San Joaquin Valley. Furthermore, most of the planning area consists of unsuitable urban and agricultural uses. Nonetheless, the taxon cannot be completely discounted and is therefore considered to have a low potential to occur within the planning area.
Taxidea taxus	American badger	none/CSC/none	This species is found as a resident species at scattered localities throughout California (except in the coastal redwood region). It generally occurs in extensive, open habitats in the vicinity of abundant rodent populations.	**No Potential.** No suitable habitat for the species (i.e., large open areas supporting grasslands or blue oak savannah) is located within the planning area. Therefore, suitable habitat for this species does not occur within the planning area and it has no potential to occur within the planning area.

TABLE D-1 SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY				
Genus/Species	**Common Name**	**Status Federal/CA/Other**	**Habitats and Seasonal Distribution in California**	**Likelihood of Occurrence within Planning Area**

FEDERAL

FE	Federally listed as Endangered
FT	Federally listed as Threatened
FPE	Federally proposed as Endangered
FPT	Federally proposed as Threatened
FC	Federal Candidate Species (former Category 1 candidates)
BCC	U.S. Fish and Wildlife Service designated "Birds of Conservation Concern" 2008

STATE

SE	State listed as Endangered
ST	State listed as Threatened
SR	State listed as Rare
CSE	State Designated as Candidate for Listing as Endangered
CFP	California Department of Fish and Wildlife designated "Fully Protected"
CSC	California Department of Fish and Wildlife designated "Species of Special Concern"
SA	California Department of Fish and Wildlife designated "Special Animal"

OTHER

CNPS List 1A	Plants presumed extinct in California
CNPS List 1B	Plants that are rare, threatened, or endangered in California and elsewhere
CNPS List 2	Plants that are rare, threatened, or endangered in California, but are more common elsewhere
CNPS List 3	Plants about which we need more information – a review list
CNPS List 4	Plants of limited distribution – a watch list
CNPS Threat Rank 0.1	Seriously threatened in California (high degree/immediacy of threat)
CNPS Threat Rank 0.2	Fairly threatened in California (moderate degree/immediacy of threat)
CNPS Threat Rank 0.3	Not very threatened in California (low degree/immediacy of threats or no current threats known)

TABLE D-1

SPECIAL-STATUS SPECIES RECORDED OR POTENTIALLY OCCURRING WITHIN THE VICINITY OF THE WINTON PLANNING AREA, MERCED COUNTY

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Planning Area

APPENDIX E: GREENHOUSE GAS CALCULATIONS

Greenhouse Gas Appendix

A. Assumptions
B. Emissions Summary
C. Modeling Output
    1. EMFAC2017 (See Air Quality Appendix C2)
    2. CalEEMod
        a. Unmitigated Construction
        b. Unmitigated Operational
        c. Mitigated Operational
D. Threshold Determination

Greenhouse Gas Appendix

A. Assumptions

Winton

Project Construction Assumptions

CalEEMod Inputs (Non-Default information only)

Project Location	
County	Merced
Air District	SJVAPCD
Climate Zone	3
First Construction Year	2020
First Operational Year	2021
Buildout Year	2035
Utility Provider	PG&E

Land Use	Sq Ft	KSF	(Units/Students)	Acers	CalEEMod Land Use Type	
	10% total Buildout (one year construction activities)					
Residential						
Single Family Residential			165.00	49.00	Single Family Residential	
Apartment Mid-Rise			3.00	1.00	Apartment Mid Rise	
Non-Residential						
Shopping Center	36,947	36.95		3.47	Strip Mall	
General Office	25,520	25.52		1.60	General Office	
Industrial Park	61,865	61.87		5.10	Industrial Park	
Demolition						
Residential	3,600	3.60	2	0.16		1179.35
Non-Residential	1,117	1.12		0.11		372.4667

Note: As a conservative estimate of emissions, 10% of total square footage and dwelling units is assumed to be built in one year beginning in 2020. Construction is based on square footage or number of dwelling units developed and not land use type, therefore the landuse type developed is irrelevant in determining construction emissions. Due to the numerous types of land-use that will be developed throughout the Community Plan development peroid, it was assumed that up to 5 individual development projects would occur during any one year. Construction modeling accounts for average duration and equipment usage based on development of 1/10 of the residential and 1/10 of the non-residential development within one year. As land use type is not critical to construction emissions and an average composit emission scenario was determined, Construction modeling only shows development of 165 homes on 49 acres of land. Architectural Coating is modeled separately for 1/10 of each landuse type.

Winton
Project Construction Assumptions

Construction Schedule

Phases (if applicable)	CalEEMod Default (# Days)	Project Revised (# Days)	Start (month/date/year)	Finish (month/date/year)
Residential				
Demolition	70	14	1/1/2020	1/20/2020
Site Preparation	40	8	1/21/2020	1/30/2020
Grading/Excavation	110	22	2/1/2020	3/3/2020
Building Construction	1110	217	3/4/2020	12/31/2020
Paving	75	75	3/4/2020	6/16/2020
Architectural Coating	75	75	9/18/2020	12/31/2020
Construction days*	1330	260		
Shopping Center				
Demolition	20	20	1/1/2020	1/28/2020
Site Preparation	5	5	1/29/2020	2/4/2020
Grading/Excavation	8	8	2/5/2020	2/14/2020
Building Construction	230	227	2/15/2020	12/29/2020
Paving	18	18	2/15/2020	3/11/2020
Architectural Coating	18	18	12/8/2020	12/31/2020
Construction days*	263	260		
General Office				
Demolition	20	20	1/1/2020	1/28/2020
Site Preparation	3	3	1/29/2020	1/31/2020
Grading/Excavation	6	6	2/1/2020	2/10/2020
Building Construction	220	220	2/11/2020	12/14/2020
Paving	10	10	2/11/2020	2/24/2020
Architectural Coating	10	10	12/15/2020	12/28/12020
Construction days*	249	260		
Industrial				
Demolition	20	19	1/1/2020	1/27/2020
Site Preparation	10	9	1/28/2020	2/7/2020
Grading/Excavation	20	19	2/8/2020	3/5/2020
Building Construction	230	214	3/6/2020	12/30/2020
Paving	20	20	3/6/2020	4/2/2020
Architectural Coating	20	20	12/4/2020	12/31/2020
Construction days*	280	260		

*Modeling assumes up to 5 projects can occur during the same year totaling 1/10th of total buildout construction activity. Because exact phasing of construction is not known, an average project length has been determined based on CalEEMod defaults for building 1/10th of each landuse type to be constructed. This assumes all project construction occurrs within one year. This is a conservative approach as total buildout is scheduled for 15 years and it is unknown if all development will actually occur. This approach provides for maximum flexibility in building out the community plan.

Winton

Project Construction Assumptions

All remaining construction information uses Default settings, with the exception of Silt loading and construction equipment as discussed below.

Soils are anticipated to be balanced onsite
Silt loading is the same as used for operational purposes and based on Merced County specifics
Equipment defaults used

Winton

Project Construction Assumptions

Construction Equipment by phase (Assumes one Project's worth of equipment per phase)

		Trips	
	Daily Worker	**Daily Vendor**	**Total Haul**
Residential			
Demolition	15		16
Site Preparation	18		
Grading/Excavation	20		
Building Construction	152	54	
Paving	15		
Architectural Coating	30		
Shopping Center			
Demolition	15		2
Site Preparation	18		
Grading/Excavation	15		
Building Construction	39	17	
Paving	20		
Architectural Coating	8		
General Office			
Demolition	13		2
Site Preparation	8		
Grading/Excavation	10		
Building Construction	22	10	
Paving	15		
Architectural Coating	4		
Industrial			
Demolition	15		2
Site Preparation	18		
Grading/Excavation	15		
Building Construction	72	28	
Paving	15		
Architectural Coating	14		
Miles per trip	10.8	7.3	20

Winton

Project Construction Schedule

Phase #	PhaseName	SFR	Apt	GO	SM	IP	Average
1	Demolition	50	10	20	20	20	24
2	Site Preparation	30	1	2	5	10	10
3	Grading	75	2	4	8	20	22
4	Building Construction	740	100	200	230	230	300
5	Paving	55	5	10	18	20	22
6	Architectural Coating	55	5	10	18	20	22

		SFR		Apartment		General Office		Strip Mall		Industrial Park		Average	
PhaseName	**OffRoadEquipmentType**	**#**	**Hours**	**#**	**Hours**	**#**	**Hours**	**#**	**Hours**	**#**	**Hours**	**#**	**Hours**
Demolition	Concrete/Industrial Saws	1	8	1	8	1	8	1	8	1	8	1	8
Demolition	Excavators	3	8	0	0	0	0	3	8	3	8	2	5
Demolition	Rubber Tired Dozers	2	8	1	8	1	8	2	8	2	8	2	8
Demolition	Tractors/Loaders/Backhoes	0	0	3	8	3	8	0	0	0	0	2	4
Site Preparation	Graders	0	0	1	8	1	8	0	0	0	0	1	4
Site Preparation	Rubber Tired Dozers	3	8	1	7	1	7	3	8	3	8	3	8
Site Preparation	Tractors/Loaders/Backhoes	4	8	1	8	1	8	4	8	4	8	3	8
Grading	Excavators	2	8		0	0		1	8	1	8	1	6
Grading	Graders	1	8	1	6	1	6	1	8	1	8	1	8
Grading	Rubber Tired Dozers	1	8	1	6	1	6	1	8	1	8	1	8
Grading	Scrapers	2	8	0	0	0	0	0	0	0	0	1	2
Grading	Tractors/Loaders/Backhoes	2	8	1	7	1	7	3	8	3	8	2	8
Building Construction	Cranes	1	7	1	6	1	6	1	7	1	7	1	7
Building Construction	Forklifts	3	8	1	6	1	6	3	8	3	8	3	8
Building Construction	Generator Sets	1	8	1	8	1	8	1	8	1	8	1	8
Building Construction	Tractors/Loaders/Backhoes	3	7	1	6	1	6	3	7	3	7	3	7
Building Construction	Welders	1	8	3	8	3	8	1	8	1	8	2	8
Paving	Cement and Mortar Mixers	0	0	1	6	1	6	2	6	0	0	1	4
Paving	Pavers	2	8	1	6	1	6	1	8	2	8	2	8
Paving	Paving Equipment	2	8	1	8	1	8	2	6	2	8	2	8
Paving	Rollers	2	8	1	7	1	7	2	6	2	8	2	8
Paving	Tractors/Loaders/Backhoes			1	8	1	8	1	8	0	0	1	6
Architectural Coating	Air Compressors	1	6	1	6	1	6	1	6	1	6	1	6

Winton

Project Operational Assumptions

CalEEMod Inputs (Non-Default information only)

Project Location		CO intensity	625.966	610.932	382.687	255.124	
County	Merced	% renewable	34.57%	36.14%	60.00%	73.33%	
Air District	SJVAPCD						
Climate Zone	3						
Initial Operational Year	2021						
Buildout Year	2035						
Utility Provider	PG&E						

	2020	2021	2030	2035
CO intensity	625.966	610.932	382.687	255.124
% renewable	34.57%	36.14%	60.00%	73.33%

[1] http://www.pgecorp.com/corp_responsibility/reports/2016/en02_climate_change.jsp

[2] http://www.cpuc.ca.gov/renewables/

Land Use	**Sq Ft**	**KSF**	**Units/Students**	**Acers**	**CalEEMod Land Use Type**
Residential					
Single Family Residential			1,647	488	
VLD			133	126.43	
LD			875	159.43	Single Family Residential
MDR - Detached			639	202.10	
Apartment Mid-Rise					
MU - Residential			29	2.34	Apartment Mid Rise
Non-Residential					
Shopping Center	369,469	369		35	
GC	249,547	249.55		23.94	
NC	67,543	67.54		6.06	Strip Mall
Commercial Transition	28,500	28.50		4.00	
Mixed Use	23,879	23.88		0.67	
General Office	255,204	255.20		16.01	
Business Park	183,567	183.57		13.99	General Office
Mixed Use	71,637	71.64		2.02	
Industrial Park	618,654	618.65		50.95	
Industrial Park	67,953	67.95		8.99	Industrial Park
Business Park	550,701	550.70		41.97	

	Existing	Future	Project	
Service Population	10,067	15629	5,562	employees
Service Population (# Employees)	1,149	4228	3,079	Residents
	11,216	19,857	8,641	Total

Note: The square footage used in the Air Quality and GHG modeling is the gross square footaage to accurately account for the amount of emissions generated by the operation of the existing and project land uses.

Winton
Project Operational Assumptions

Transportation:

Trip Generation

	Traffic Study			Project			
	trips	Adj. Trips[1]		**Weekday**	**Saturday**	**Sunday**	
Single Family Residential	15,548	15,548		9.44	9.83	8.55	per DU
SFR+School				11.40	10.08	8.65	per DU
Apartment Mid-Rise	212	212		7.31	7.02	6.44	per DU
Shopping Center	13,945	9,204		24.91	23.63	11.48	per KSF
General Office	2,703	2,703		10.59	2.36	1.01	per KSF
Industrial Park	3,727	3,727		6.02	2.20	0.64	per KSF
School	3,227	3,227		1.96	0.26	0.11	Per DU
	39,362	34,621	(Total from given above)				
	38,362	33,621	(Totals presented in trip gen)				

*Based on Traffic Study Information as provided.

1 shopping center Trips adjusted based on an approximately 34 percent reduction due to Pass-by trips for strip mall (retail) uses.

2 School trips from new students are accounted for in SFR trips as no new schools are being built.

VMT	Existing	E+P	Winton	Future	F+P	Winton (daily)	Winton (annual)
	219,779	468,479	248,700	293,075	608,102	315,027	114,984,855

VMT Revisions in CalEEMod

	Default VMT	**% Default**	**Traffic Study**	**Needed VMT**	Increase from Default	Revised VMT	:alEEMod Output
Apartment Mid Rise	814,483	0.77%		880,060	65,577	880,060	
General Office	5,455,939	5.13%		5,895,216	439,277	5,895,216	
Industrial Park	7,735,614	7.27%		8,358,436	622,822	8,358,436	
Single Family Residential	70,046,857	65.82%		75,686,581	5,639,724	75,686,581	
Strip Mall	22,363,959	21.02%		24,164,562	1,800,603	24,164,562	
Total	106,416,852		114,984,855			114,984,855	114,998,793
	8%						

Notes: Using 100% primary trips and 100% H-W or C-C total VMT equals 106,416,852

Change in Trip Length

	Original	**Increase**	**Revised**	**Revised2**
Residential	10.80	0.87	11.67	11.67
Commercial	7.30	0.59	7.89	7.87
Industrial			7.89	7.88
CalEEMod VMT Output:			114,998,793	114,985,017
Difference:			13,938	162
				(Used)

Entrained Road Dust

(Merced County)	Freeway	Major	Collector	Local	Total	Composit
Travel Fractions	0.244	0.527	0.125	0.104	1	
Silt Loading	0.02	0.032	0.032	0.32		0.059024

*CARB 2014. *Miscellaneous Process Methodology 7.9 Entrained Road Travel, Paved Road Dust. Revised April 2014*

Winton

Project Operational Assumptions

The default CalEEMod fleet mix for Merced County has heavy duty trucks at 15.08 percent of the total fleet. This is due to the rural nature of the county and the amount of agriculture that occurs. The proposed project is a mix of residential, commercial, and retail uses which would not see that level of intensity of heavy duty trucks. Based on the type of development expected within the project area it is not anticpated that the heavy duty truck trips would exceed this level. Therefore, the fleet mix for the project was adjusted to reduce heavy duty vehicle trips to 2 percent as shown below.

	Default	Revised
LDA	0.53395324	0.62414691
LDT1	0.04020449	0.0469957
LDT2	0.13	0.14953085
MDV	0.0897003	0.10485218
LHD1	0.01505015	0.01759237
LHD2	0.00399704	0.00467221
MHD	0.01804909	0.02109788

	Default	Revised
HHD	0.161616967	0.02
OBUS	0.001441866	0.0016854
UBUS	0.001280721	0.0014971
MCY	0.004728537	0.0055273
SBUS	0.001593712	0.0018629
MH	0.00046132	0.0005392
Total	1	1

Winton

Project Operational Assumptions

Area Source Defaults

Energy Use

Electricity — Defaults adjusted for Title 24 changes for Project, Existing usage provided.

Natural Gas — Defaults adjusted for Title 24 changes for Project, Existing usage provided.

CalEEMod currently uses 2016 Title 24 efficiency standards. The project will be built post 2019 therefore as a conservative estimate of T24 efficiencies required, the emission factors are updated to account for the inclusion of 2019 Title 24 standards. Existing consumption was based on the average consumption over the last 7 years as provided (Source: Miramar UTILITIES Stats 2011-2017 aug.xls).

	T24 Electricity	Lighting	T24 NG
Residential 2019	7%	0%	7%
Non-Residential 2019	30%	0%	30%

Default	T24 Electricity	Lighting	T24 NG
Single Family Residential	995.93	1,608.84	22,422.24
Apartment Mid-Rise	700.71	741.44	8,454.86
Shopping Center	2.14	3.71	8.62
General Office	2.62	2.92	12.77
Industrial Park	2.62	2.92	1.28

		Project	
	T24 Electricity	Lighting	T24 NG
Single Family Residential	926.215	1,608.840	20,852.683
Apartment Mid-Rise	651.660	741.440	7,863.020
Shopping Center	1.498	3.710	6.034
General Office	1.834	2.920	8.939
Industrial Park	1.834	2.920	0.894

Winton
Project Operational Assumptions

Water Use Default

	Removal of Septic		
	Septic	Aerobic	Lagoons
	10.33	87.46	2.21
		0.98	0.02
		10.08	0.25
	0.00	97.54	2.46

* Multifamily indoor water use reduced by 35%
*Multifamily outdoor water use reduced by 25%
Title 24 2013 20% indoor for Non-Residential

Solid Waste Generation:

	Tons/year			
	2035			
	CalEEMod	**Reduced[2]**		
Single Family Residential	1695.60	712.15	0.571151489	33.12678637
Apartment Mid-Rise	13.34	5.60	0.00449349	0.260622393
Shopping Center	387.94	147.42	0.118229751	7.330244534
General Office	237.34	90.19	0.072332446	4.484611635
Industrial Park	767.13	291.51	0.233792825	14.49515515
	3,101.35	1,246.87	1.00	0.596974201

[2] CalEEMod doesn't take into account the fact that California on a whole has reduced waste to landfill by 62% for employee and 58% for Residential. Modeling accounts for recycling based on land use types. http://www.calrecycle.ca.gov/lgcentral/goalmeasure/disposalrate/Graphs/EstDiversion.htm. Data from 2017 accessed April 2020.

Greenhouse Gas Appendix

B. Emissions Summary

Winton
Construction GHG Summary

CalEEMod	2016.3.2	Date
Title:	Winton - Construction Only - SFR	4/5/2020
	Winton - Construction - Shopping Center - Unmitigated	4/6/2020
	Winton - General Office - Unmitigated	4/6/2020
	Winton - Construction Industrial - Unmitigated	4/6/2020
EMFAC2017	Winton	4/6/2020

Unmitigated Construction Emissions - Max Annual

			Annual $MTCO_2e$			Annual total	Project
	Phases / year	**Off-Road**	**Hauling**	**Vendor**	**Worker**	**MT CO_2e**	**Total**
			Residential				
Demolition	2	47.93	2.24	0.00	1.49	51.66	
Site Preparation	2	26.96	0.00	0.00	1.02	27.98	
Grading	2	120.83	0.00	0.00	3.13	123.96	
Building Construction	2	505.66	0.00	356.96	234.37	1096.99	
Paving	2	151.43	0.00	0.00	7.99	159.42	
Architectural Coating	2	19.19	0.00	0.00	15.99	35.17	1,495
			Shopping Center				
Demolition	1	34.24	0.80	0.00	1.07	36.10	
Site Preparation	1	8.43	0.00	0.00	0.32	8.75	
Grading	1	10.51	0.00	0.00	0.57	11.08	
Building Construction	1	264.48	0.00	58.78	31.45	354.71	
Paving	1	14.85	0.00	0.00	1.28	16.13	
Architectural Coating	1	2.30	0.00	0.00	0.51	2.81	430
			General Office				
Demolition	1	21.20	0.80	0.00	0.92	22.93	
Site Preparation	1	3.26	0.00	0.00	0.09	3.34	
Grading	1	5.48	0.00	0.00	0.21	5.69	
Building Construction	1	0.00	0.00	33.51	17.20	50.70	
Paving	1	7.81	0.00	0.00	0.53	8.35	
Architectural Coating	1	1.28	0.00	0.00	0.14	1.42	92
			Industrial				
Demolition	1	32.53	0.76	0.00	1.01	34.30	
Site Preparation	1	15.17	0.00	0.00	0.58	15.74	
Grading	1	24.96	0.00	0.00	1.01	25.97	
Building Construction	1	249.33	0.00	91.27	54.74	395.34	
Paving	1	20.19	0.00	0.00	1.07	21.26	
Architectural Coating	1	2.56	0.00	0.00	0.99	3.55	496
			Total Emissions				
Max Annual Program							2,513
Max Program							37,700
Amortized							1,257

*Conservatively assumes Project Emissions all occur within one year.

*Conservatively assumes Program has 15 years of Site Preparation, Grading, Building Cinstruction, Paving, and Architectural Coating emissions and two years of Demolition activities.

Operational GHG Summary

CalEEMod	2016.3.2	Date
Title:	Winton - Operational	4/13/2020
EMFAC2017	Winton	4/6/2020

Unmitigated Operational Emissions By Sector

Sector		*Project*	*Plan*
Area		751	751
Energy		5,379	5,307
	Electricity	2,862	2,791
	Natural Gas	2,517	2,517
Mobile		31,559	30,125
	Residential	20,773	20,234
	Mixed Use	670	627
	Non-Residential	10,115	9,853
Waste		627	531
	Residential	361	300
	Non-Residential	266	232
Water		524	419
Total Operational		**38,840**	**37,134**
Amortized Const		1,257	1,257
Total		**40,097**	**38,391**
Service Population		8,641	8,641
Total per service pop		4.6	4.4
Threshold		3.9	3.9
Reduction Needed			
	Threshold	33,700	33,700
	Project	40,097	38,391
% Reduction Needed		15.95%	12.22%
Quantified Measures			1,2,3,4,6,9,10 11 & 13

Mitigated Operational Emissions By Sector

		Mitigation			
Sector	*Community*	*Project (a)*	*Project (b)*	*Project (c)*	*Project (d)*
Area	751	20	751	751	20
Energy	5,307	4,796	4,185	4,162	752
Electricity	2,791	2,704	2094	1,646	-1,020
Natural Gas	2,517	2,091	2,091	2,517	1,772
Mobile	26,652	26,509	26,509	26,509	30,713
Residential	18,858	18,763			20,234
Mixed Use	584	581			627
Non-Residential	9,183	9,137			9,853
Waste	531	531	531	531	531
Water	419	419	419	419	419
Total Operational	**33,661**	**32,275**	**32,394**	**32,372**	**32,435**
Amortized Const	1,257	1,257	1,257	1,257	1,257
Total	**34,917**	**33,531**	**33,651**	**33,629**	**33,692**
Service Population	8,641	8,641	8,641	8,641	8,641
Total per service pop	4.0	3.88	3.89	3.89	3.90
Threshold	3.9	3.9	3.9	3.9	3.9
Reduction Needed					
Threshold	33,700	33,700	33,700	33,700	33,700
Project	34,917	33,531	33,651	33,629	33,692
% Reduction Needed	3.49%	-0.50%	-0.15%	-0.21%	-0.02%
Quantified Measures	14	14,15,17a,	14,15,17a, 21a	14,15, 21b	17b,20, 21c & 22

CalEEMod Output		Date
Community	Winton - Operational	4/13/2020
Project A	Winton - Operational - Mitigated - GHG Reductions (17, 20 & 22)	5/13/2020
Project B	Winton - Operational - Mitigated - GHG Reductions (17, 20 & 21a)	5/13/2020
Project C	Winton - Operational - Mitigated - GHG Reductions (20 & 21b)	5/13/2020
Project D	Winton - Operational - Mitigation - GHG Reductions (17b, 20, 21c, & 22)	9/23/2020

Winton

GHG Reductions

Plan Measures:		SJVAPCD BPS #	CAPCOA #
Minimal Emissions Reductioin Values from Plan Measures			
1	Bicycle Parking Measure	1 & 3	SDT-6 & 7
	0.63% reduction in VMT.		
2	End of Trip Facilities	2	TRT-5
	0.63% reduction in VMT, Non-residential		
3	Proximity to Bike Path/Bike Lanes Measure:	4	LUT-8
	0.63% reduction in VMT.		
4	Pedestrian Network Measure	5	SDT-1
	0.50% reduction in VMT.		
5	Pedestrian Barriers Minimized	6	SDT-1
	(reduction accounted for under measure 4 above)		
6	Traffic Calming Measure	9	SDT-2
	0.25% reduction in VMT used in analysis		
	up to 1 percent reduction max based on implementation.		
7	Pedestrian Pathway through Parking	14	SDT-1
	Reduction accounted for as part of measure 4 above.		
8	Orientation toward "planned" transit,bikeway, or pedestrian corridor	18	NA
	Reduction accounted for as part of measure 4 above.		
9	Residential Density	19	NA
	3% reduction in VMT for Mixed Use and High Density Residential uses		
10	Other Mixed-Use Measure	24	NA
	1% reduction in total VMT or Project		
11	Onsite Renewable Energy System:	27	AE-2 & 3
	2.50% % of electricity consumption		
	Minimum reduction used.		
12	Solar Orientation	29	NA
	reduction accounted for in measures 14 and 15 above.		
13	Meeting Statewide Waste Reduction of 75%		

	VMT	% VMt		Existing	
Residential	75,689,521	0.65823731		107,851,600	VMT
MU Res	880,094	0.00765378	0.36035317	0.937936273	% of New
MU Non-Res	1,562,216	0.01358588		29,600	GHG
Non Res	36,856,365	0.32052303			
	22,609,241				
	5,896,899				
	8,350,225				
Total VMT	114,988,196				

Transportation Reductions from Specific Plan Consistency

		Plan Reductions				
Measure	Unmitigated	1	2	3	4	5
% Reduction	0	0.63%	0.63%	0.63%	0.50%	i
Attributed To		Project	Non-Res	all	all	all
Residential	20,773	130	129	128	102	0
MU - Res	242	2	2	1	1	0
MU - NR	429	3	3	3	2	0
Non-Res	10,115	63	63	62	50	0
Existing	29,600	185	0	184	146	0

Measure	6	7	8	9	10	Reduced	Reduction
% Reduction	0.25%	i	i	3%	1%		
Attributed To	all	all	all	MU	MU		
Residential	51	0	0	0	0	20,234	
MU - Res	1	0	0	7	2	226	
MU - NR	1	0	0	13	4	401	
Non-Res	25	0	0	0	0	9,853	
Existing	73	0	0	0	0	29,013	588

Note: i = incorporated by other measures

Energy Reduction from Specific Plan Consistency

Measure	Unmitigated	11	12	Reduced	Reduction
% reduction	0	2.50%	i		
Attributed to		Electricity	Electricity		
Electricity	2,862	72	0	2,791	72
Natural Gas	2,517	0	0	2,517	0

Solid Waste Reduction From State Measures

Measure	Unmitigated	13	13	Reduced
% reduction	0	17%	13%	
Attributed to		Resident	Non-Res	
Residential	361	61	0	300
Non-Res	266	0	35	232

Mitigation Measures Continued (Community Plan Wide):

		SJVAPCD BPS #	CAPCOA #
14	TDM Program	NA	TRT-1, 3, LUT-9
1%	reduction for Rideshar program		
0.80%	reduction for TDM Marketing		
5%	Improve Design of Development		
6.80%	Total reduction in project VMT.		
6.80%	Reduction in Existing Plan VMT		

Transportation Reductions from Community Wide Mitigation

Measure	Unmitigated	14	Reduced	Reduction
% Reduction	0	6.80%		
Attributed To		All		
Residential	20,234	1376	18,858	
MU - Res	226	15	211	
MU - NR	401	27	374	
Non-Res	9,853	670	9,183	
Existing	29,013	1973	27,040	1,973

Mitigation Measures Continued (Project Level):

			SJVAPCD BPS #	CAPCOA #
15	Minimize Parking		12	PDT-1
	0.50%	reduction in VMT used in analysis		
16	Energy Star Roof Measure		26	NA
		Reduction accounted for as part of measure 17 below.		
17	Exceed Title 24 Measure		28	BE-1
	20%	reduction in energy use (accounted for in CalEEMod)		
	35%	reduction in energy use (accounted for in CalEEMod)		
18	Non Roof Surface Measure		30	GP-1
		reductions accounted for in measure 17 above.		
19	Green Roof Measure		31	NA
		reductions accounted for in measure 17 above.		
20	Electric Lawnmower Measure		33	A-1 & 3
		reductions accounted for in CalEEMod		
21	On/Off-site Solar			
a	22%	offset of Unmitigated Project Electricity		
b	40%	offset of Unmitigated Project Electricity		
c	135%	offset of Unmitigated Project Electricity		
22	No Fireplaces			
		reductions accounted for in CalEEMod		

Transportation Reductions from Project Level Mitigation

Measure	Unmitigated	15	Reduced
% Reduction	0	0.50%	
Attributed To		All	
Residential	18,858	94	18,763
MU - Res	211	1	210
MU - NR	374	2	372
Non-Res	9,183	46	9,137

Greenhouse Gas Appendix

C. Modeling Output

1. EMFAC2017 (See Air Quality Appendix C2)

See Air Quality Appendix C2

Greenhouse Gas Appendix

C. Modeling Output

2. CalEEMod

a. Unmitigated Construction

See Air Quality Appendix for the following Modeling Outputs

Winton - Construction Only - SFR
Winton - Construction - Shopping Center - Unmitigated
Winton - General Office - Unmitigated
Winton - Construction Industrial - Unmitigated

Greenhouse Gas Appendix

C. Modeling Output

2. CalEEMod

b. Unmitigated Operational

See Air Quality Appendix for the following Modeling Outputs

Winton - Operational

Greenhouse Gas Appendix
C. Modeling Output
2. CalEEMod
c. Mitigated Operational

See Air Quality Appendix for the following Modeling Outputs

Winton - Operational - Mitigated

Modeling Output included in this Appendix:

Winton - Operational - Mitigated - GHG Reductions (17, 20 & 22)
Winton - Operational - Mitigated - GHG Reductions (17, 20 & 21a)
Winton - Operational - Mitigated - GHG Reductions (20 & 21b)
Winton - Operational - Mitigation - GHG Reductions (17b, 20, 21c, & 22)

Winton - Operational - Mitigated - GHG Reductions (17,20 & 22)

Merced County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	255.20	1000sqft	16.01	255,200.00	0
Industrial Park	618.65	1000sqft	50.95	618,650.00	0
Apartments Mid Rise	29.00	Dwelling Unit	2.34	29,000.00	83
Single Family Housing	1,647.00	Dwelling Unit	488.00	2,964,600.00	4710
Strip Mall	369.00	1000sqft	35.00	369,000.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 49

Climate Zone 3 **Operational Year** 2035

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 255.12 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - Construction modeled separately

Off-road Equipment - See assumptions

Vehicle Trips - See Assumptions

Road Dust - see assumptions

Energy Use - See Assumptions

Water And Wastewater - See Assumptions

Solid Waste - See Assumptions

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation - See Assumptions

Waste Mitigation -

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	150	50
tblEnergyUse	T24E	700.71	651.66
tblEnergyUse	T24E	2.62	1.83
tblEnergyUse	T24E	2.62	1.83
tblEnergyUse	T24E	995.93	926.22
tblEnergyUse	T24E	2.14	1.50
tblEnergyUse	T24NG	8,454.86	7,863.02
tblEnergyUse	T24NG	12.77	8.94
tblEnergyUse	T24NG	12.77	0.89

tblEnergyUse	T24NG	22,422.24	20,852.68
tblEnergyUse	T24NG	8.62	6.03
tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LHD1	8.2190e-003	0.02
tblFleetMix	LHD1	8.2190e-003	0.02
tblFleetMix	LHD1	8.2190e-003	0.02
tblFleetMix	LHD1	8.2190e-003	0.02
tblFleetMix	LHD1	8.2190e-003	0.02

tblFleetMix	LHD2	3.1010e-003	4.6720e-003
tblFleetMix	LHD2	3.1010e-003	4.6720e-003
tblFleetMix	LHD2	3.1010e-003	4.6720e-003
tblFleetMix	LHD2	3.1010e-003	4.6720e-003
tblFleetMix	LHD2	3.1010e-003	4.6720e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MH	3.9400e-004	5.3900e-004
tblFleetMix	MH	3.9400e-004	5.3900e-004
tblFleetMix	MH	3.9400e-004	5.3900e-004
tblFleetMix	MH	3.9400e-004	5.3900e-004
tblFleetMix	MH	3.9400e-004	5.3900e-004
tblFleetMix	MHD	0.01	0.02
tblFleetMix	MHD	0.01	0.02
tblFleetMix	MHD	0.01	0.02
tblFleetMix	MHD	0.01	0.02
tblFleetMix	MHD	0.01	0.02
tblFleetMix	OBUS	2.3180e-003	1.6850e-003
tblFleetMix	OBUS	2.3180e-003	1.6850e-003

tblFleetMix	OBUS	2.3180e-003	1.6850e-003
tblFleetMix	OBUS	2.3180e-003	1.6850e-003
tblFleetMix	OBUS	2.3180e-003	1.6850e-003
tblFleetMix	SBUS	1.1980e-003	1.8630e-003
tblFleetMix	SBUS	1.1980e-003	1.8630e-003
tblFleetMix	SBUS	1.1980e-003	1.8630e-003
tblFleetMix	SBUS	1.1980e-003	1.8630e-003
tblFleetMix	SBUS	1.1980e-003	1.8630e-003
tblFleetMix	UBUS	1.4170e-003	1.4970e-003
tblFleetMix	UBUS	1.4170e-003	1.4970e-003
tblFleetMix	UBUS	1.4170e-003	1.4970e-003
tblFleetMix	UBUS	1.4170e-003	1.4970e-003
tblFleetMix	UBUS	1.4170e-003	1.4970e-003
tblLandUse	LotAcreage	5.86	16.01
tblLandUse	LotAcreage	14.20	50.95
tblLandUse	LotAcreage	0.76	2.34
tblLandUse	LotAcreage	534.74	488.00
tblLandUse	LotAcreage	8.47	35.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	255.12
tblSolidWaste	SolidWasteGenerationRate	13.34	5.60
tblSolidWaste	SolidWasteGenerationRate	237.34	90.19
tblSolidWaste	SolidWasteGenerationRate	767.13	291.51
tblSolidWaste	SolidWasteGenerationRate	1,695.60	712.15
tblSolidWaste	SolidWasteGenerationRate	387.45	147.42
tblVehicleEF	HHD	2.26	0.02
tblVehicleEF	HHD	5.9230e-003	2.2340e-003

tblVehicleEF	HHD	0.06	0.00
tblVehicleEF	HHD	1.83	7.50
tblVehicleEF	HHD	0.50	0.21
tblVehicleEF	HHD	0.45	5.7900e-004
tblVehicleEF	HHD	5,420.44	1,007.75
tblVehicleEF	HHD	1,442.40	1,040.69
tblVehicleEF	HHD	1.35	4.2460e-003
tblVehicleEF	HHD	15.17	6.02
tblVehicleEF	HHD	1.35	2.16
tblVehicleEF	HHD	20.70	2.24
tblVehicleEF	HHD	1.8290e-003	2.1960e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.3490e-003	0.03
tblVehicleEF	HHD	1.4000e-005	0.00
tblVehicleEF	HHD	1.7500e-003	2.1010e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9730e-003	8.9820e-003
tblVehicleEF	HHD	5.1170e-003	0.02
tblVehicleEF	HHD	1.3000e-005	0.00
tblVehicleEF	HHD	1.9000e-005	0.00
tblVehicleEF	HHD	6.3800e-004	5.0000e-006
tblVehicleEF	HHD	0.49	0.51
tblVehicleEF	HHD	1.0000e-005	0.00
tblVehicleEF	HHD	0.08	0.02
tblVehicleEF	HHD	4.9000e-005	2.2000e-005
tblVehicleEF	HHD	7.7960e-003	0.00

tblVehicleEF	HHD	0.05	9.5170e-003
tblVehicleEF	HHD	0.01	9.8230e-003
tblVehicleEF	HHD	2.1000e-005	0.00
tblVehicleEF	HHD	1.9000e-005	0.00
tblVehicleEF	HHD	6.3800e-004	5.0000e-006
tblVehicleEF	HHD	0.56	0.58
tblVehicleEF	HHD	1.0000e-005	0.00
tblVehicleEF	HHD	0.09	0.02
tblVehicleEF	HHD	4.9000e-005	2.2000e-005
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tblVehicleEF	HHD	5.9290e-003	2.2340e-003
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tblVehicleEF	HHD	1.33	7.41
tblVehicleEF	HHD	0.50	0.21
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tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.3490e-003	0.03
tblVehicleEF	HHD	1.4000e-005	0.00

tblVehicleEF	HHD	1.4750e-003	1.8650e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9730e-003	8.9820e-003
tblVehicleEF	HHD	5.1170e-003	0.02
tblVehicleEF	HHD	1.3000e-005	0.00
tblVehicleEF	HHD	4.5000e-005	0.00
tblVehicleEF	HHD	7.0500e-004	5.0000e-006
tblVehicleEF	HHD	0.46	0.54
tblVehicleEF	HHD	1.9000e-005	0.00
tblVehicleEF	HHD	0.08	0.02
tblVehicleEF	HHD	4.9000e-005	2.2000e-005
tblVehicleEF	HHD	7.3640e-003	0.00
tblVehicleEF	HHD	0.05	9.3930e-003
tblVehicleEF	HHD	0.01	9.8230e-003
tblVehicleEF	HHD	2.0000e-005	0.00
tblVehicleEF	HHD	4.5000e-005	0.00
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tblVehicleEF	HHD	0.53	0.61
tblVehicleEF	HHD	1.9000e-005	0.00
tblVehicleEF	HHD	0.09	0.02
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tblVehicleEF	HHD	2.44	0.02
tblVehicleEF	HHD	5.9160e-003	2.2330e-003
tblVehicleEF	HHD	0.06	0.00
tblVehicleEF	HHD	2.52	7.64
tblVehicleEF	HHD	0.50	0.21

tblVehicleEF	HHD	0.48	6.3000e-004
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tblVehicleEF	HHD	1,442.40	1,040.69
tblVehicleEF	HHD	1.35	4.3280e-003
tblVehicleEF	HHD	14.50	6.43
tblVehicleEF	HHD	1.38	2.20
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tblVehicleEF	HHD	5.3490e-003	0.03
tblVehicleEF	HHD	1.4000e-005	0.00
tblVehicleEF	HHD	2.1290e-003	2.4260e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9730e-003	8.9820e-003
tblVehicleEF	HHD	5.1170e-003	0.02
tblVehicleEF	HHD	1.3000e-005	0.00
tblVehicleEF	HHD	7.0000e-006	0.00
tblVehicleEF	HHD	6.3500e-004	5.0000e-006
tblVehicleEF	HHD	0.53	0.47
tblVehicleEF	HHD	5.0000e-006	0.00
tblVehicleEF	HHD	0.08	0.02
tblVehicleEF	HHD	5.5000e-005	2.5000e-005
tblVehicleEF	HHD	8.2950e-003	0.00
tblVehicleEF	HHD	0.05	9.6890e-003
tblVehicleEF	HHD	0.01	9.8230e-003
tblVehicleEF	HHD	2.1000e-005	0.00

tblVehicleEF	HHD	7.0000e-006	0.00
tblVehicleEF	HHD	6.3500e-004	5.0000e-006
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tblVehicleEF	HHD	5.0000e-006	0.00
tblVehicleEF	HHD	0.09	0.02
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tblVehicleEF	LDA	3.8900e-004	3.9000e-004

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tblVehicleEF	LDA	0.01	0.02
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tblVehicleEF	LDA	0.06	0.07
tblVehicleEF	LDA	0.03	0.05
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tblVehicleEF	LDA	0.01	0.08
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tblVehicleEF	LDA	1.4000e-003	1.0410e-003
tblVehicleEF	LDA	8.7000e-004	7.4400e-004
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tblVehicleEF	LDA	0.05	0.06
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tblVehicleEF	LDA	6.6130e-003	0.01
tblVehicleEF	LDA	0.05	0.06

tblVehicleEF	LDA	5.6950e-003	9.6750e-003
tblVehicleEF	LDA	5.8370e-003	3.8230e-003
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.02	0.12
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tblVehicleEF	LDT1	3.6040e-003	0.03
tblVehicleEF	LDT1	0.45	0.51
tblVehicleEF	LDT1	0.90	1.66
tblVehicleEF	LDT1	229.29	239.80
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tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.04	0.14
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tblVehicleEF	LDT1	1.7740e-003	1.1910e-003
tblVehicleEF	LDT1	1.0990e-003	8.4900e-004
tblVehicleEF	LDT1	1.6310e-003	1.0950e-003
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.04	0.05
tblVehicleEF	LDT1	7.5680e-003	5.2150e-003
tblVehicleEF	LDT1	0.06	0.34
tblVehicleEF	LDT1	0.05	0.13
tblVehicleEF	LDT1	2.2960e-003	2.3730e-003
tblVehicleEF	LDT1	5.1600e-004	4.7600e-004
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.04	0.05

tblVehicleEF	LDT1	0.01	7.6240e-003
tblVehicleEF	LDT1	0.06	0.34
tblVehicleEF	LDT1	0.05	0.14
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tblVehicleEF	LDT1	0.74	1.39
tblVehicleEF	LDT1	251.22	259.39
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tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.04	0.13
tblVehicleEF	LDT1	1.1950e-003	9.2400e-004
tblVehicleEF	LDT1	1.7740e-003	1.1910e-003
tblVehicleEF	LDT1	1.0990e-003	8.4900e-004
tblVehicleEF	LDT1	1.6310e-003	1.0950e-003
tblVehicleEF	LDT1	0.15	0.16
tblVehicleEF	LDT1	0.14	0.11
tblVehicleEF	LDT1	0.09	0.10
tblVehicleEF	LDT1	8.6640e-003	5.9660e-003
tblVehicleEF	LDT1	0.06	0.33
tblVehicleEF	LDT1	0.04	0.11
tblVehicleEF	LDT1	2.5170e-003	2.5670e-003
tblVehicleEF	LDT1	5.1300e-004	4.7100e-004
tblVehicleEF	LDT1	0.15	0.16
tblVehicleEF	LDT1	0.14	0.11
tblVehicleEF	LDT1	0.09	0.10
tblVehicleEF	LDT1	0.01	8.7210e-003

tblVehicleEF	LDT1	0.06	0.33
tblVehicleEF	LDT1	0.04	0.12
tblVehicleEF	LDT1	2.8750e-003	1.3290e-003
tblVehicleEF	LDT1	4.2230e-003	0.03
tblVehicleEF	LDT1	0.42	0.47
tblVehicleEF	LDT1	1.09	2.02
tblVehicleEF	LDT1	221.43	232.79
tblVehicleEF	LDT1	50.14	48.72
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.05	0.16
tblVehicleEF	LDT1	1.1950e-003	9.2400e-004
tblVehicleEF	LDT1	1.7740e-003	1.1910e-003
tblVehicleEF	LDT1	1.0990e-003	8.4900e-004
tblVehicleEF	LDT1	1.6310e-003	1.0950e-003
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	7.1250e-003	4.9120e-003
tblVehicleEF	LDT1	0.07	0.41
tblVehicleEF	LDT1	0.06	0.15
tblVehicleEF	LDT1	2.2170e-003	2.3040e-003
tblVehicleEF	LDT1	5.1900e-004	4.8200e-004
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.01	7.1800e-003
tblVehicleEF	LDT1	0.07	0.41

tblVehicleEF	LDT1	0.06	0.16
tblVehicleEF	LDT2	2.7600e-003	1.5570e-003
tblVehicleEF	LDT2	2.4660e-003	0.03
tblVehicleEF	LDT2	0.47	0.55
tblVehicleEF	LDT2	0.75	2.06
tblVehicleEF	LDT2	260.94	242.47
tblVehicleEF	LDT2	56.29	48.96
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.04	0.15
tblVehicleEF	LDT2	1.1130e-003	9.1200e-004
tblVehicleEF	LDT2	1.6240e-003	1.0960e-003
tblVehicleEF	LDT2	1.0240e-003	8.4000e-004
tblVehicleEF	LDT2	1.4940e-003	1.0080e-003
tblVehicleEF	LDT2	0.04	0.07
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	6.8660e-003	5.6520e-003
tblVehicleEF	LDT2	0.04	0.31
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	2.6120e-003	2.3990e-003
tblVehicleEF	LDT2	5.7500e-004	4.8500e-004
tblVehicleEF	LDT2	0.04	0.07
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.01	8.2050e-003
tblVehicleEF	LDT2	0.04	0.31
tblVehicleEF	LDT2	0.04	0.16

tblVehicleEF	LDT2	3.1650e-003	1.8040e-003
tblVehicleEF	LDT2	2.0740e-003	0.03
tblVehicleEF	LDT2	0.58	0.68
tblVehicleEF	LDT2	0.64	1.71
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tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.04	0.14
tblVehicleEF	LDT2	1.1130e-003	9.1200e-004
tblVehicleEF	LDT2	1.6240e-003	1.0960e-003
tblVehicleEF	LDT2	1.0240e-003	8.4000e-004
tblVehicleEF	LDT2	1.4940e-003	1.0080e-003
tblVehicleEF	LDT2	0.09	0.16
tblVehicleEF	LDT2	0.08	0.10
tblVehicleEF	LDT2	0.06	0.11
tblVehicleEF	LDT2	7.8700e-003	6.4460e-003
tblVehicleEF	LDT2	0.04	0.30
tblVehicleEF	LDT2	0.03	0.12
tblVehicleEF	LDT2	2.8630e-003	2.5760e-003
tblVehicleEF	LDT2	5.7300e-004	4.7800e-004
tblVehicleEF	LDT2	0.09	0.16
tblVehicleEF	LDT2	0.08	0.10
tblVehicleEF	LDT2	0.06	0.11
tblVehicleEF	LDT2	0.01	9.3670e-003
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tblVehicleEF	LDT2	0.03	0.13
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tblVehicleEF	LDT2	0.43	0.51
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tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.04	0.16
tblVehicleEF	LDT2	1.1130e-003	9.1200e-004
tblVehicleEF	LDT2	1.6240e-003	1.0960e-003
tblVehicleEF	LDT2	1.0240e-003	8.4000e-004
tblVehicleEF	LDT2	1.4940e-003	1.0080e-003
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	6.4620e-003	5.3310e-003
tblVehicleEF	LDT2	0.05	0.38
tblVehicleEF	LDT2	0.04	0.17
tblVehicleEF	LDT2	2.5220e-003	2.3350e-003
tblVehicleEF	LDT2	5.7700e-004	4.9200e-004
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.07	0.08
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tblVehicleEF	LDT2	9.4150e-003	7.7360e-003
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tblVehicleEF	LDT2	0.04	0.19
tblVehicleEF	LHD1	3.3030e-003	3.4300e-003
tblVehicleEF	LHD1	7.2730e-003	5.1120e-003

tblVehicleEF	LHD1	7.8940e-003	7.1800e-003
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tblVehicleEF	LHD1	631.32	664.88
tblVehicleEF	LHD1	22.81	8.35
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.90	0.51
tblVehicleEF	LHD1	0.53	0.18
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tblVehicleEF	LHD1	8.6000e-004	1.0380e-003
tblVehicleEF	LHD1	2.6370e-003	2.5240e-003
tblVehicleEF	LHD1	0.01	9.3840e-003
tblVehicleEF	LHD1	4.4700e-004	1.5200e-004
tblVehicleEF	LHD1	2.0260e-003	1.7370e-003
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	9.4300e-004	7.9800e-004
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.11	0.03
tblVehicleEF	LHD1	9.1000e-005	8.2000e-005
tblVehicleEF	LHD1	6.1560e-003	6.4670e-003

tblVehicleEF	LHD1	2.5100e-004	8.3000e-005
tblVehicleEF	LHD1	2.0260e-003	1.7370e-003
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.4300e-004	7.9800e-004
tblVehicleEF	LHD1	0.12	0.10
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.12	0.04
tblVehicleEF	LHD1	3.3030e-003	3.4400e-003
tblVehicleEF	LHD1	7.3480e-003	5.1600e-003
tblVehicleEF	LHD1	7.4550e-003	6.8040e-003
tblVehicleEF	LHD1	0.13	0.16
tblVehicleEF	LHD1	0.61	0.50
tblVehicleEF	LHD1	1.18	0.70
tblVehicleEF	LHD1	9.21	8.46
tblVehicleEF	LHD1	631.32	664.88
tblVehicleEF	LHD1	22.81	8.27
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.85	0.48
tblVehicleEF	LHD1	0.50	0.17
tblVehicleEF	LHD1	8.9900e-004	1.0850e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	9.8490e-003
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tblVehicleEF	LHD1	8.6000e-004	1.0380e-003
tblVehicleEF	LHD1	2.6370e-003	2.5240e-003
tblVehicleEF	LHD1	0.01	9.3840e-003

tblVehicleEF	LHD1	4.4700e-004	1.5200e-004
tblVehicleEF	LHD1	4.7920e-003	4.1240e-003
tblVehicleEF	LHD1	0.07	0.06
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	1.8750e-003	1.6030e-003
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.10	0.03
tblVehicleEF	LHD1	9.1000e-005	8.2000e-005
tblVehicleEF	LHD1	6.1560e-003	6.4670e-003
tblVehicleEF	LHD1	2.5000e-004	8.2000e-005
tblVehicleEF	LHD1	4.7920e-003	4.1240e-003
tblVehicleEF	LHD1	0.07	0.06
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.8750e-003	1.6030e-003
tblVehicleEF	LHD1	0.12	0.10
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.11	0.04
tblVehicleEF	LHD1	3.3030e-003	3.4200e-003
tblVehicleEF	LHD1	7.1910e-003	5.0610e-003
tblVehicleEF	LHD1	8.3800e-003	7.5890e-003
tblVehicleEF	LHD1	0.13	0.16
tblVehicleEF	LHD1	0.60	0.49
tblVehicleEF	LHD1	1.37	0.81
tblVehicleEF	LHD1	9.21	8.46
tblVehicleEF	LHD1	631.32	664.87
tblVehicleEF	LHD1	22.81	8.46

tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.92	0.52
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tblVehicleEF	LHD1	8.9900e-004	1.0850e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	9.8490e-003
tblVehicleEF	LHD1	4.8600e-004	1.6500e-004
tblVehicleEF	LHD1	8.6000e-004	1.0380e-003
tblVehicleEF	LHD1	2.6370e-003	2.5240e-003
tblVehicleEF	LHD1	0.01	9.3840e-003
tblVehicleEF	LHD1	4.4700e-004	1.5200e-004
tblVehicleEF	LHD1	7.3900e-004	6.2300e-004
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	4.3600e-004	3.6500e-004
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.15	0.29
tblVehicleEF	LHD1	0.11	0.04
tblVehicleEF	LHD1	9.1000e-005	8.2000e-005
tblVehicleEF	LHD1	6.1560e-003	6.4670e-003
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tblVehicleEF	LHD1	7.3900e-004	6.2300e-004
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	4.3600e-004	3.6500e-004
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.15	0.29

tblVehicleEF	LHD1	0.12	0.04
tblVehicleEF	LHD2	2.2910e-003	2.1400e-003
tblVehicleEF	LHD2	5.0030e-003	5.6170e-003
tblVehicleEF	LHD2	2.5640e-003	3.8460e-003
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	0.45	0.56
tblVehicleEF	LHD2	0.82	0.40
tblVehicleEF	LHD2	13.62	13.53
tblVehicleEF	LHD2	666.89	658.82
tblVehicleEF	LHD2	20.75	5.33
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.20	0.62
tblVehicleEF	LHD2	0.23	0.11
tblVehicleEF	LHD2	9.8100e-004	1.5680e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.7600e-003	0.02
tblVehicleEF	LHD2	3.5900e-004	8.3000e-005
tblVehicleEF	LHD2	9.3900e-004	1.5000e-003
tblVehicleEF	LHD2	2.7150e-003	2.7420e-003
tblVehicleEF	LHD2	8.3590e-003	0.02
tblVehicleEF	LHD2	3.3000e-004	7.7000e-005
tblVehicleEF	LHD2	6.8500e-004	8.3500e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.4000e-004	4.1400e-004
tblVehicleEF	LHD2	0.09	0.11
tblVehicleEF	LHD2	0.03	0.11

tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	1.3200e-004	1.2900e-004
tblVehicleEF	LHD2	6.4770e-003	6.3420e-003
tblVehicleEF	LHD2	2.2100e-004	5.3000e-005
tblVehicleEF	LHD2	6.8500e-004	8.3500e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.4000e-004	4.1400e-004
tblVehicleEF	LHD2	0.10	0.12
tblVehicleEF	LHD2	0.03	0.11
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	2.2910e-003	2.1460e-003
tblVehicleEF	LHD2	5.0270e-003	5.6390e-003
tblVehicleEF	LHD2	2.5020e-003	3.6460e-003
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	0.45	0.56
tblVehicleEF	LHD2	0.77	0.37
tblVehicleEF	LHD2	13.62	13.53
tblVehicleEF	LHD2	666.89	658.82
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tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.19	0.59
tblVehicleEF	LHD2	0.22	0.10
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tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.7600e-003	0.02
tblVehicleEF	LHD2	3.5900e-004	8.3000e-005

tblVehicleEF	LHD2	9.3900e-004	1.5000e-003
tblVehicleEF	LHD2	2.7150e-003	2.7420e-003
tblVehicleEF	LHD2	8.3590e-003	0.02
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tblVehicleEF	LHD2	6.7700e-004	8.1500e-004
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tblVehicleEF	LHD2	0.03	0.11
tblVehicleEF	LHD2	0.03	0.02
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tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	6.7700e-004	8.1500e-004
tblVehicleEF	LHD2	0.10	0.12
tblVehicleEF	LHD2	0.03	0.11
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tblVehicleEF	LHD2	2.6330e-003	4.0640e-003
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	0.45	0.56
tblVehicleEF	LHD2	0.89	0.43

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tblVehicleEF	LHD2	666.89	658.81
tblVehicleEF	LHD2	20.75	5.38
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.21	0.63
tblVehicleEF	LHD2	0.23	0.11
tblVehicleEF	LHD2	9.8100e-004	1.5680e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.7600e-003	0.02
tblVehicleEF	LHD2	3.5900e-004	8.3000e-005
tblVehicleEF	LHD2	9.3900e-004	1.5000e-003
tblVehicleEF	LHD2	2.7150e-003	2.7420e-003
tblVehicleEF	LHD2	8.3590e-003	0.02
tblVehicleEF	LHD2	3.3000e-004	7.7000e-005
tblVehicleEF	LHD2	2.4900e-004	3.0800e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	1.5600e-004	1.9300e-004
tblVehicleEF	LHD2	0.09	0.11
tblVehicleEF	LHD2	0.03	0.13
tblVehicleEF	LHD2	0.04	0.02
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tblVehicleEF	LHD2	2.4900e-004	3.0800e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02

tblVehicleEF	LHD2	1.5600e-004	1.9300e-004
tblVehicleEF	LHD2	0.10	0.12
tblVehicleEF	LHD2	0.03	0.13
tblVehicleEF	LHD2	0.04	0.02
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tblVehicleEF	MCY	0.15	0.24
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tblVehicleEF	MCY	10.30	9.15
tblVehicleEF	MCY	179.23	217.41
tblVehicleEF	MCY	43.15	59.15
tblVehicleEF	MCY	1.15	1.15
tblVehicleEF	MCY	0.31	0.27
tblVehicleEF	MCY	2.3650e-003	2.3630e-003
tblVehicleEF	MCY	3.1050e-003	2.7270e-003
tblVehicleEF	MCY	2.2060e-003	2.2040e-003
tblVehicleEF	MCY	2.9020e-003	2.5480e-003
tblVehicleEF	MCY	1.51	1.51
tblVehicleEF	MCY	0.83	0.83
tblVehicleEF	MCY	0.70	0.70
tblVehicleEF	MCY	2.33	2.33
tblVehicleEF	MCY	0.26	1.39
tblVehicleEF	MCY	2.09	1.85
tblVehicleEF	MCY	2.1600e-003	2.1510e-003
tblVehicleEF	MCY	6.6100e-004	5.8500e-004
tblVehicleEF	MCY	1.51	1.51
tblVehicleEF	MCY	0.83	0.83
tblVehicleEF	MCY	0.70	0.70

tblVehicleEF	MCY	2.91	2.91
tblVehicleEF	MCY	0.26	1.39
tblVehicleEF	MCY	2.27	2.01
tblVehicleEF	MCY	0.49	0.34
tblVehicleEF	MCY	0.13	0.21
tblVehicleEF	MCY	18.42	18.40
tblVehicleEF	MCY	9.08	8.04
tblVehicleEF	MCY	179.23	217.59
tblVehicleEF	MCY	43.15	56.49
tblVehicleEF	MCY	1.00	1.00
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.3650e-003	2.3630e-003
tblVehicleEF	MCY	3.1050e-003	2.7270e-003
tblVehicleEF	MCY	2.2060e-003	2.2040e-003
tblVehicleEF	MCY	2.9020e-003	2.5480e-003
tblVehicleEF	MCY	3.87	3.87
tblVehicleEF	MCY	1.34	1.35
tblVehicleEF	MCY	1.80	1.80
tblVehicleEF	MCY	2.29	2.29
tblVehicleEF	MCY	0.25	1.35
tblVehicleEF	MCY	1.78	1.58
tblVehicleEF	MCY	2.1620e-003	2.1530e-003
tblVehicleEF	MCY	6.3200e-004	5.5900e-004
tblVehicleEF	MCY	3.87	3.87
tblVehicleEF	MCY	1.34	1.35
tblVehicleEF	MCY	1.80	1.80
tblVehicleEF	MCY	2.86	2.86

tblVehicleEF	MCY	0.25	1.35
tblVehicleEF	MCY	1.94	1.72
tblVehicleEF	MCY	0.51	0.36
tblVehicleEF	MCY	0.18	0.29
tblVehicleEF	MCY	19.46	19.44
tblVehicleEF	MCY	12.03	10.74
tblVehicleEF	MCY	179.23	219.68
tblVehicleEF	MCY	43.15	62.83
tblVehicleEF	MCY	1.25	1.25
tblVehicleEF	MCY	0.34	0.29
tblVehicleEF	MCY	2.3650e-003	2.3630e-003
tblVehicleEF	MCY	3.1050e-003	2.7270e-003
tblVehicleEF	MCY	2.2060e-003	2.2040e-003
tblVehicleEF	MCY	2.9020e-003	2.5480e-003
tblVehicleEF	MCY	0.42	0.42
tblVehicleEF	MCY	0.82	0.82
tblVehicleEF	MCY	0.20	0.20
tblVehicleEF	MCY	2.41	2.41
tblVehicleEF	MCY	0.31	1.67
tblVehicleEF	MCY	2.46	2.19
tblVehicleEF	MCY	2.1830e-003	2.1740e-003
tblVehicleEF	MCY	7.0100e-004	6.2200e-004
tblVehicleEF	MCY	0.42	0.42
tblVehicleEF	MCY	0.82	0.82
tblVehicleEF	MCY	0.20	0.20
tblVehicleEF	MCY	3.02	3.01
tblVehicleEF	MCY	0.31	1.67

tblVehicleEF	MCY	2.68	2.39
tblVehicleEF	MDV	5.0280e-003	2.0260e-003
tblVehicleEF	MDV	6.9270e-003	0.04
tblVehicleEF	MDV	0.65	0.60
tblVehicleEF	MDV	1.42	2.19
tblVehicleEF	MDV	356.48	301.56
tblVehicleEF	MDV	77.10	60.81
tblVehicleEF	MDV	0.06	0.04
tblVehicleEF	MDV	0.11	0.18
tblVehicleEF	MDV	1.2140e-003	9.4300e-004
tblVehicleEF	MDV	1.7640e-003	1.1630e-003
tblVehicleEF	MDV	1.1180e-003	8.6900e-004
tblVehicleEF	MDV	1.6220e-003	1.0700e-003
tblVehicleEF	MDV	0.09	0.10
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.07	0.09
tblVehicleEF	MDV	0.01	7.9330e-003
tblVehicleEF	MDV	0.08	0.40
tblVehicleEF	MDV	0.09	0.19
tblVehicleEF	MDV	3.5650e-003	2.9800e-003
tblVehicleEF	MDV	7.9500e-004	6.0200e-004
tblVehicleEF	MDV	0.09	0.10
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.07	0.09
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.08	0.40
tblVehicleEF	MDV	0.10	0.20

tblVehicleEF	MDV	5.7580e-003	2.3440e-003
tblVehicleEF	MDV	5.7450e-003	0.03
tblVehicleEF	MDV	0.81	0.74
tblVehicleEF	MDV	1.20	1.82
tblVehicleEF	MDV	389.59	319.93
tblVehicleEF	MDV	77.10	60.13
tblVehicleEF	MDV	0.06	0.04
tblVehicleEF	MDV	0.10	0.17
tblVehicleEF	MDV	1.2140e-003	9.4300e-004
tblVehicleEF	MDV	1.7640e-003	1.1630e-003
tblVehicleEF	MDV	1.1180e-003	8.6900e-004
tblVehicleEF	MDV	1.6220e-003	1.0700e-003
tblVehicleEF	MDV	0.21	0.25
tblVehicleEF	MDV	0.18	0.15
tblVehicleEF	MDV	0.14	0.17
tblVehicleEF	MDV	0.01	9.0380e-003
tblVehicleEF	MDV	0.07	0.38
tblVehicleEF	MDV	0.08	0.15
tblVehicleEF	MDV	3.8980e-003	3.1620e-003
tblVehicleEF	MDV	7.9100e-004	5.9500e-004
tblVehicleEF	MDV	0.21	0.25
tblVehicleEF	MDV	0.18	0.15
tblVehicleEF	MDV	0.14	0.17
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.07	0.38
tblVehicleEF	MDV	0.08	0.17
tblVehicleEF	MDV	4.7340e-003	1.8840e-003

tblVehicleEF	MDV	8.0820e-003	0.05
tblVehicleEF	MDV	0.61	0.56
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tblVehicleEF	MDV	77.10	61.66
tblVehicleEF	MDV	0.07	0.04
tblVehicleEF	MDV	0.12	0.20
tblVehicleEF	MDV	1.2140e-003	9.4300e-004
tblVehicleEF	MDV	1.7640e-003	1.1630e-003
tblVehicleEF	MDV	1.1180e-003	8.6900e-004
tblVehicleEF	MDV	1.6220e-003	1.0700e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.01	7.4860e-003
tblVehicleEF	MDV	0.09	0.47
tblVehicleEF	MDV	0.11	0.22
tblVehicleEF	MDV	3.4460e-003	2.9150e-003
tblVehicleEF	MDV	8.0000e-004	6.1000e-004
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.09	0.47
tblVehicleEF	MDV	0.12	0.24
tblVehicleEF	MH	7.3410e-003	4.8240e-003
tblVehicleEF	MH	0.02	0.02

tblVehicleEF	MH	0.38	0.29
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tblVehicleEF	MH	1,179.93	1,305.16
tblVehicleEF	MH	55.83	14.11
tblVehicleEF	MH	0.86	1.24
tblVehicleEF	MH	0.60	0.23
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.5600e-004	1.9400e-004
tblVehicleEF	MH	3.2250e-003	3.3190e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8700e-004	1.7800e-004
tblVehicleEF	MH	0.58	0.44
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.18	0.14
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	4.3760e-003	0.30
tblVehicleEF	MH	0.21	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.1900e-004	1.4000e-004
tblVehicleEF	MH	0.58	0.44
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.18	0.14
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	4.3760e-003	0.30
tblVehicleEF	MH	0.23	0.07
tblVehicleEF	MH	7.5280e-003	4.9090e-003

tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.39	0.29
tblVehicleEF	MH	3.18	1.34
tblVehicleEF	MH	1,179.93	1,305.17
tblVehicleEF	MH	55.83	13.88
tblVehicleEF	MH	0.80	1.17
tblVehicleEF	MH	0.57	0.22
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.5600e-004	1.9400e-004
tblVehicleEF	MH	3.2250e-003	3.3190e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8700e-004	1.7800e-004
tblVehicleEF	MH	1.38	1.04
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.35	0.27
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	4.3440e-003	0.30
tblVehicleEF	MH	0.20	0.06
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.1400e-004	1.3700e-004
tblVehicleEF	MH	1.38	1.04
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.35	0.27
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	4.3440e-003	0.30
tblVehicleEF	MH	0.21	0.07

tblVehicleEF	MH	7.1340e-003	4.7280e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.37	0.28
tblVehicleEF	MH	3.87	1.63
tblVehicleEF	MH	1,179.93	1,305.15
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tblVehicleEF	MH	0.64	0.25
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.5600e-004	1.9400e-004
tblVehicleEF	MH	3.2250e-003	3.3190e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8700e-004	1.7800e-004
tblVehicleEF	MH	0.21	0.16
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.10	0.08
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	4.7590e-003	0.33
tblVehicleEF	MH	0.22	0.07
tblVehicleEF	MH	0.01	0.01
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tblVehicleEF	MH	0.21	0.16
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.10	0.08
tblVehicleEF	MH	0.05	0.05
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tblVehicleEF	MHD	3.0030e-003	8.3580e-003
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tblVehicleEF	MHD	2.8800e-004	1.3500e-004
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tblVehicleEF	MHD	7.9930e-003	0.05
tblVehicleEF	MHD	0.14	0.03
tblVehicleEF	MHD	1.7120e-003	8.2500e-004

tblVehicleEF	MHD	0.01	9.3380e-003
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tblVehicleEF	MHD	2.8800e-004	1.3500e-004
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tblVehicleEF	MHD	7.9930e-003	0.05
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tblVehicleEF	MHD	3.0030e-003	8.3580e-003
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tblVehicleEF	MHD	4.1000e-005	1.2800e-004
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tblVehicleEF	MHD	0.13	0.02
tblVehicleEF	MHD	1.8130e-003	8.1600e-004
tblVehicleEF	MHD	0.01	9.3380e-003
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tblVehicleEF	MHD	1.3600e-003	6.4500e-004
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tblVehicleEF	MHD	5.7300e-004	2.7000e-004
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tblVehicleEF	MHD	7.9130e-003	0.05
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tblVehicleEF	MHD	0.03	5.9220e-003
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tblVehicleEF	MHD	5.9000e-005	1.7200e-004
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tblVehicleEF	OBUS	4.72	1.36
tblVehicleEF	OBUS	4.8000e-005	2.6100e-004
tblVehicleEF	OBUS	2.9060e-003	9.3820e-003
tblVehicleEF	OBUS	8.6900e-004	1.2000e-004
tblVehicleEF	OBUS	4.6000e-005	2.5000e-004
tblVehicleEF	OBUS	2.7600e-003	8.9620e-003
tblVehicleEF	OBUS	7.9900e-004	1.1000e-004
tblVehicleEF	OBUS	1.5860e-003	1.4070e-003
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tblVehicleEF	OBUS	0.02	0.18
tblVehicleEF	OBUS	0.25	0.07
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tblVehicleEF	OBUS	0.04	0.08

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tblVehicleEF	OBUS	5.8000e-005	3.0200e-004

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tblVehicleEF	OBUS	2.7600e-003	8.9620e-003
tblVehicleEF	OBUS	7.9900e-004	1.1000e-004
tblVehicleEF	OBUS	5.8500e-004	5.3800e-004
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	2.9300e-004	2.7000e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.02	0.19
tblVehicleEF	OBUS	0.24	0.06
tblVehicleEF	OBUS	1.9030e-003	1.4870e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	6.4100e-004	1.0400e-004
tblVehicleEF	OBUS	5.8500e-004	5.3800e-004
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.05	0.08
tblVehicleEF	OBUS	2.9300e-004	2.7000e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.02	0.19
tblVehicleEF	OBUS	0.26	0.07
tblVehicleEF	SBUS	0.83	0.02
tblVehicleEF	SBUS	3.7660e-003	2.2730e-003
tblVehicleEF	SBUS	0.05	1.8370e-003
tblVehicleEF	SBUS	3.63	1.45
tblVehicleEF	SBUS	0.30	0.18

tblVehicleEF	SBUS	2.57	0.23
tblVehicleEF	SBUS	1,260.89	286.86
tblVehicleEF	SBUS	1,105.32	919.78
tblVehicleEF	SBUS	23.82	1.36
tblVehicleEF	SBUS	4.32	2.11
tblVehicleEF	SBUS	1.35	2.19
tblVehicleEF	SBUS	16.95	1.63
tblVehicleEF	SBUS	8.8300e-004	1.1050e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	4.9470e-003	0.02
tblVehicleEF	SBUS	4.1200e-004	2.0000e-005
tblVehicleEF	SBUS	8.4400e-004	1.0570e-003
tblVehicleEF	SBUS	2.7610e-003	2.8110e-003
tblVehicleEF	SBUS	4.7220e-003	0.02
tblVehicleEF	SBUS	3.7900e-004	1.8000e-005
tblVehicleEF	SBUS	2.5770e-003	4.0500e-004
tblVehicleEF	SBUS	0.02	2.5150e-003
tblVehicleEF	SBUS	0.44	0.11
tblVehicleEF	SBUS	9.1100e-004	1.4300e-004
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	6.8250e-003	0.02
tblVehicleEF	SBUS	0.14	9.4880e-003
tblVehicleEF	SBUS	0.01	2.7180e-003
tblVehicleEF	SBUS	0.01	8.7550e-003
tblVehicleEF	SBUS	2.8300e-004	1.3000e-005
tblVehicleEF	SBUS	2.5770e-003	4.0500e-004
tblVehicleEF	SBUS	0.02	2.5150e-003

tblVehicleEF	SBUS	0.63	0.15
tblVehicleEF	SBUS	9.1100e-004	1.4300e-004
tblVehicleEF	SBUS	0.07	0.05
tblVehicleEF	SBUS	6.8250e-003	0.02
tblVehicleEF	SBUS	0.16	0.01
tblVehicleEF	SBUS	0.83	0.02
tblVehicleEF	SBUS	3.8090e-003	2.2920e-003
tblVehicleEF	SBUS	0.04	1.4840e-003
tblVehicleEF	SBUS	3.55	1.42
tblVehicleEF	SBUS	0.31	0.19
tblVehicleEF	SBUS	1.74	0.15
tblVehicleEF	SBUS	1,328.83	288.46
tblVehicleEF	SBUS	1,105.32	919.78
tblVehicleEF	SBUS	23.82	1.24
tblVehicleEF	SBUS	4.45	2.10
tblVehicleEF	SBUS	1.29	2.09
tblVehicleEF	SBUS	16.93	1.63
tblVehicleEF	SBUS	7.4400e-004	9.4500e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	4.9470e-003	0.02
tblVehicleEF	SBUS	4.1200e-004	2.0000e-005
tblVehicleEF	SBUS	7.1200e-004	9.0400e-004
tblVehicleEF	SBUS	2.7610e-003	2.8110e-003
tblVehicleEF	SBUS	4.7220e-003	0.02
tblVehicleEF	SBUS	3.7900e-004	1.8000e-005
tblVehicleEF	SBUS	5.9940e-003	9.4400e-004
tblVehicleEF	SBUS	0.02	2.6190e-003

tblVehicleEF	SBUS	0.43	0.11
tblVehicleEF	SBUS	1.7120e-003	2.6900e-004
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	5.9680e-003	0.01
tblVehicleEF	SBUS	0.11	7.6520e-003
tblVehicleEF	SBUS	0.01	2.7340e-003
tblVehicleEF	SBUS	0.01	8.7550e-003
tblVehicleEF	SBUS	2.6900e-004	1.2000e-005
tblVehicleEF	SBUS	5.9940e-003	9.4400e-004
tblVehicleEF	SBUS	0.02	2.6190e-003
tblVehicleEF	SBUS	0.62	0.15
tblVehicleEF	SBUS	1.7120e-003	2.6900e-004
tblVehicleEF	SBUS	0.07	0.05
tblVehicleEF	SBUS	5.9680e-003	0.01
tblVehicleEF	SBUS	0.13	8.3780e-003
tblVehicleEF	SBUS	0.83	0.02
tblVehicleEF	SBUS	3.7250e-003	2.2540e-003
tblVehicleEF	SBUS	0.06	2.1570e-003
tblVehicleEF	SBUS	3.73	1.48
tblVehicleEF	SBUS	0.30	0.18
tblVehicleEF	SBUS	3.39	0.30
tblVehicleEF	SBUS	1,167.08	284.65
tblVehicleEF	SBUS	1,105.32	919.77
tblVehicleEF	SBUS	23.82	1.48
tblVehicleEF	SBUS	4.13	2.13
tblVehicleEF	SBUS	1.38	2.24
tblVehicleEF	SBUS	16.96	1.63

tblVehicleEF	SBUS	1.0740e-003	1.3270e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	4.9470e-003	0.02
tblVehicleEF	SBUS	4.1200e-004	2.0000e-005
tblVehicleEF	SBUS	1.0270e-003	1.2700e-003
tblVehicleEF	SBUS	2.7610e-003	2.8110e-003
tblVehicleEF	SBUS	4.7220e-003	0.02
tblVehicleEF	SBUS	3.7900e-004	1.8000e-005
tblVehicleEF	SBUS	9.8900e-004	1.5500e-004
tblVehicleEF	SBUS	0.02	2.5120e-003
tblVehicleEF	SBUS	0.44	0.11
tblVehicleEF	SBUS	5.0800e-004	8.0000e-005
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	8.5910e-003	0.02
tblVehicleEF	SBUS	0.17	0.01
tblVehicleEF	SBUS	0.01	2.6980e-003
tblVehicleEF	SBUS	0.01	8.7550e-003
tblVehicleEF	SBUS	2.9700e-004	1.5000e-005
tblVehicleEF	SBUS	9.8900e-004	1.5500e-004
tblVehicleEF	SBUS	0.02	2.5120e-003
tblVehicleEF	SBUS	0.63	0.15
tblVehicleEF	SBUS	5.0800e-004	8.0000e-005
tblVehicleEF	SBUS	0.07	0.05
tblVehicleEF	SBUS	8.5910e-003	0.02
tblVehicleEF	SBUS	0.18	0.01
tblVehicleEF	UBUS	0.72	1.89
tblVehicleEF	UBUS	0.06	0.05

tblVehicleEF	UBUS	3.92	13.88
tblVehicleEF	UBUS	8.69	3.39
tblVehicleEF	UBUS	1,790.75	1,467.43
tblVehicleEF	UBUS	146.64	32.98
tblVehicleEF	UBUS	2.28	0.32
tblVehicleEF	UBUS	11.97	0.35
tblVehicleEF	UBUS	0.49	0.11
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.04	2.6450e-003
tblVehicleEF	UBUS	1.4640e-003	4.4000e-004
tblVehicleEF	UBUS	0.21	0.05
tblVehicleEF	UBUS	3.0000e-003	3.7370e-003
tblVehicleEF	UBUS	0.04	2.4940e-003
tblVehicleEF	UBUS	1.3470e-003	4.0500e-004
tblVehicleEF	UBUS	6.0860e-003	2.8280e-003
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	2.7610e-003	1.2900e-003
tblVehicleEF	UBUS	0.14	0.03
tblVehicleEF	UBUS	0.01	0.14
tblVehicleEF	UBUS	0.82	0.19
tblVehicleEF	UBUS	0.01	7.4950e-003
tblVehicleEF	UBUS	1.6270e-003	3.2600e-004
tblVehicleEF	UBUS	6.0860e-003	2.8280e-003
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	2.7610e-003	1.2900e-003
tblVehicleEF	UBUS	0.87	1.93
tblVehicleEF	UBUS	0.01	0.14

tblVehicleEF	UBUS	0.89	0.21
tblVehicleEF	UBUS	0.72	1.89
tblVehicleEF	UBUS	0.05	0.04
tblVehicleEF	UBUS	3.93	13.88
tblVehicleEF	UBUS	7.04	2.75
tblVehicleEF	UBUS	1,790.75	1,467.44
tblVehicleEF	UBUS	146.64	31.90
tblVehicleEF	UBUS	2.16	0.31
tblVehicleEF	UBUS	11.88	0.33
tblVehicleEF	UBUS	0.49	0.11
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.04	2.6450e-003
tblVehicleEF	UBUS	1.4640e-003	4.4000e-004
tblVehicleEF	UBUS	0.21	0.05
tblVehicleEF	UBUS	3.0000e-003	3.7370e-003
tblVehicleEF	UBUS	0.04	2.4940e-003
tblVehicleEF	UBUS	1.3470e-003	4.0500e-004
tblVehicleEF	UBUS	0.01	6.8100e-003
tblVehicleEF	UBUS	0.08	0.03
tblVehicleEF	UBUS	5.3930e-003	2.7060e-003
tblVehicleEF	UBUS	0.14	0.03
tblVehicleEF	UBUS	0.01	0.13
tblVehicleEF	UBUS	0.72	0.17
tblVehicleEF	UBUS	0.01	7.4950e-003
tblVehicleEF	UBUS	1.5980e-003	3.1600e-004
tblVehicleEF	UBUS	0.01	6.8100e-003
tblVehicleEF	UBUS	0.08	0.03

tblVehicleEF	UBUS	5.3930e-003	2.7060e-003
tblVehicleEF	UBUS	0.87	1.93
tblVehicleEF	UBUS	0.01	0.13
tblVehicleEF	UBUS	0.79	0.18
tblVehicleEF	UBUS	0.72	1.89
tblVehicleEF	UBUS	0.07	0.05
tblVehicleEF	UBUS	3.90	13.87
tblVehicleEF	UBUS	10.53	4.09
tblVehicleEF	UBUS	1,790.75	1,467.42
tblVehicleEF	UBUS	146.64	34.18
tblVehicleEF	UBUS	2.34	0.33
tblVehicleEF	UBUS	12.07	0.38
tblVehicleEF	UBUS	0.49	0.11
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.04	2.6450e-003
tblVehicleEF	UBUS	1.4640e-003	4.4000e-004
tblVehicleEF	UBUS	0.21	0.05
tblVehicleEF	UBUS	3.0000e-003	3.7370e-003
tblVehicleEF	UBUS	0.04	2.4940e-003
tblVehicleEF	UBUS	1.3470e-003	4.0500e-004
tblVehicleEF	UBUS	2.3130e-003	9.8700e-004
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	1.4800e-003	6.1500e-004
tblVehicleEF	UBUS	0.14	0.03
tblVehicleEF	UBUS	0.01	0.17
tblVehicleEF	UBUS	0.92	0.21
tblVehicleEF	UBUS	0.01	7.4950e-003

tblVehicleEF	UBUS	1.6590e-003	3.3800e-004
tblVehicleEF	UBUS	2.3130e-003	9.8700e-004
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	1.4800e-003	6.1500e-004
tblVehicleEF	UBUS	0.87	1.93
tblVehicleEF	UBUS	0.01	0.17
tblVehicleEF	UBUS	1.00	0.23
tblVehicleTrips	CC_TL	7.30	7.89
tblVehicleTrips	CC_TL	7.30	7.88
tblVehicleTrips	CC_TL	7.30	7.89
tblVehicleTrips	CC_TTP	48.00	100.00
tblVehicleTrips	CC_TTP	28.00	100.00
tblVehicleTrips	CC_TTP	64.40	100.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00

tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	7.50	0.00
tblVehicleTrips	HO_TL	7.50	0.00
tblVehicleTrips	HO_TTP	35.70	0.00
tblVehicleTrips	HO_TTP	35.70	0.00
tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HS_TTP	17.40	0.00
tblVehicleTrips	HS_TTP	17.40	0.00
tblVehicleTrips	HW_TL	10.80	11.67
tblVehicleTrips	HW_TL	10.80	11.67
tblVehicleTrips	HW_TTP	46.90	100.00
tblVehicleTrips	HW_TTP	46.90	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	79.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	6.39	7.02
tblVehicleTrips	ST_TR	2.46	2.36

tblVehicleTrips	ST_TR	2.49	2.20
tblVehicleTrips	ST_TR	9.91	10.08
tblVehicleTrips	ST_TR	42.04	23.63
tblVehicleTrips	SU_TR	5.86	6.44
tblVehicleTrips	SU_TR	1.05	1.01
tblVehicleTrips	SU_TR	0.73	0.64
tblVehicleTrips	SU_TR	8.62	8.65
tblVehicleTrips	SU_TR	20.43	11.48
tblVehicleTrips	WD_TR	6.65	7.31
tblVehicleTrips	WD_TR	11.03	10.59
tblVehicleTrips	WD_TR	6.83	6.02
tblVehicleTrips	WD_TR	9.52	11.40
tblVehicleTrips	WD_TR	44.32	24.91
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

'- Construction Modeled Separately

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	20.6645	0.7701	12.6789	4.6600e-003		0.1197	0.1197		0.1197	0.1197	0.0000	746.4057	746.4057	0.0333	0.0133	751.2055
Energy	0.2528	2.1781	1.0502	0.0138		0.1747	0.1747		0.1747	0.1747	0.0000	5,336.1696	5,336.1696	0.3701	0.1125	5,378.9560
Mobile	9.0026	20.3755	95.0013	0.3397	43.1155	0.2407	43.3562	11.5551	0.2261	11.7812	0.0000	31,534.3573	31,534.3573	1.0118	0.0000	31,559.6517
Waste						0.0000	0.0000		0.0000	0.0000	253.1033	0.0000	253.1033	14.9580	0.0000	627.0528
Water						0.0000	0.0000		0.0000	0.0000	114.9683	249.3999	364.3682	3.3290	0.2559	523.8466
Total	**29.9198**	**23.3237**	**108.7304**	**0.3582**	**43.1155**	**0.5351**	**43.6506**	**11.5551**	**0.5205**	**12.0756**	**368.0716**	**37,866.3326**	**38,234.4042**	**19.7022**	**0.3817**	**38,840.7126**

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	20.0744	0.1404	12.1272	6.4000e-004		0.0673	0.0673		0.0673	0.0673	0.0000	19.7717	19.7717	0.0188	0.0000	20.2406
Energy	0.2101	1.8099	0.8729	0.0115		0.1451	0.1451		0.1451	0.1451	0.0000	4,827.6486	4,827.6486	0.3523	0.1028	4,867.0786
Mobile	9.0026	20.3755	95.0013	0.3397	43.1155	0.2407	43.3562	11.5551	0.2261	11.7812	0.0000	31,534.3573	31,534.3573	1.0118	0.0000	31,559.6517
Waste						0.0000	0.0000		0.0000	0.0000	253.1033	0.0000	253.1033	14.9580	0.0000	627.0528
Water						0.0000	0.0000		0.0000	0.0000	91.9746	199.5200	291.4946	2.6632	0.2047	419.0773
Total	**29.2870**	**22.3258**	**108.0014**	**0.3518**	**43.1155**	**0.4532**	**43.5687**	**11.5551**	**0.4386**	**11.9937**	**345.0780**	**36,581.2976**	**36,926.3755**	**19.0040**	**0.3075**	**37,493.1011**

	ROG	NOx	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	**2.12**	**4.28**	**0.67**	**1.77**	**0.00**	**15.31**	**0.19**	**0.00**	**15.74**	**0.68**	**6.25**	**3.39**	**3.42**	**3.54**	**19.45**	**3.47**

3.0 Construction Detail

'- Construction Modeled Separately

4.0 Operational Details - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.0026	20.3755	95.0013	0.3397	43.1155	0.2407	43.3562	11.5551	0.2261	11.7812	0.0000	31,534.3573	31,534.3573	1.0118	0.0000	31,559.6517
Unmitigated	9.0026	20.3755	95.0013	0.3397	43.1155	0.2407	43.3562	11.5551	0.2261	11.7812	0.0000	31,534.3573	31,534.3573	1.0118	0.0000	31,559.6517

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	211.99	203.58	186.76	880,094	880,094
General Office Building	2,702.57	602.27	257.75	5,896,899	5,896,899
Industrial Park	3,724.27	1,361.03	395.94	8,350,225	8,350,225
Single Family Housing	18,775.80	16,601.76	14246.55	75,689,521	75,689,521
Strip Mall	9,191.79	8,719.47	4236.12	24,171,457	24,171,457
Total	34,606.42	27,488.11	19,323.12	114,988,196	114,988,196

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
Apartments Mid Rise	11.67	0.00	0.00	100.00	0.00	0.00	100	0	0
General Office Building	0.00	7.89	0.00	0.00	100.00	0.00	100	0	0
Industrial Park	0.00	7.88	0.00	0.00	100.00	0.00	100	0	0
Single Family Housing	11.67	0.00	0.00	100.00	0.00	0.00	100	0	0
Strip Mall	0.00	7.89	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
General Office Building	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
Industrial Park	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
Single Family Housing	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
Strip Mall	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable 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	2,748.8302	2,748.8302	0.3125	0.0647	2,775.9069
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,834.3946	2,834.3946	0.3222	0.0667	2,862.3141
NaturalGas Mitigated	0.2101	1.8099	0.8729	0.0115		0.1451	0.1451		0.1451	0.1451	0.0000	2,078.8183	2,078.8183	0.0398	0.0381	2,091.1717
NaturalGas Unmitigated	0.2528	2.1781	1.0502	0.0138		0.1747	0.1747		0.1747	0.1747	0.0000	2,501.7751	2,501.7751	0.0480	0.0459	2,516.6419

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					
Apartments Mid Rise	335995	1.8100e-003	0.0155	6.5900e-003	1.0000e-004		1.2500e-003	1.2500e-003		1.2500e-003	1.2500e-003	0.0000	17.9300	17.9300	3.4000e-004	3.3000e-004	18.0365
General Office Building	2.35294e+006	0.0127	0.1153	0.0969	6.9000e-004		8.7700e-003	8.7700e-003		8.7700e-003	8.7700e-003	0.0000	125.5621	125.5621	2.4100e-003	2.3000e-003	126.3082
Industrial Park	723821	3.9000e-003	0.0355	0.0298	2.1000e-004		2.7000e-003	2.7000e-003		2.7000e-003	2.7000e-003	0.0000	38.6258	38.6258	7.4000e-004	7.1000e-004	38.8554
Single Family Housing	4.04761e+007	0.2183	1.8651	0.7937	0.0119		0.1508	0.1508		0.1508	0.1508	0.0000	2,159.9612	2,159.9612	0.0414	0.0396	2,172.7968
Strip Mall	2.99259e+006	0.0161	0.1467	0.1232	8.8000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	159.6960	159.6960	3.0600e-003	2.9300e-003	160.6450
Total		**0.2528**	**2.1781**	**1.0502**	**0.0138**		**0.1747**	**0.1747**		**0.1747**	**0.1747**	**0.0000**	**2,501.7751**	**2,501.7751**	**0.0480**	**0.0459**	**2,516.6419**

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					
Apartments Mid Rise	290389	1.5700e-003	0.0134	5.6900e-003	9.0000e-005		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003	0.0000	15.4963	15.4963	3.0000e-004	2.8000e-004	15.5884
General Office Building	1.89665e+006	0.0102	0.0930	0.0781	5.6000e-004		7.0700e-003	7.0700e-003		7.0700e-003	7.0700e-003	0.0000	101.2123	101.2123	1.9400e-003	1.8600e-003	101.8137
Industrial Park	613701	3.3100e-003	0.0301	0.0253	1.8000e-004		2.2900e-003	2.2900e-003		2.2900e-003	2.2900e-003	0.0000	32.7494	32.7494	6.3000e-004	6.0000e-004	32.9440
Single Family Housing	3.36073e+007	0.1812	1.5486	0.6590	9.8800e-003		0.1252	0.1252		0.1252	0.1252	0.0000	1,793.4120	1,793.4120	0.0344	0.0329	1,804.0694
Strip Mall	2.54758e+006	0.0137	0.1249	0.1049	7.5000e-004		9.4900e-003	9.4900e-003		9.4900e-003	9.4900e-003	0.0000	135.9484	135.9484	2.6100e-003	2.4900e-003	136.7562
Total		**0.2101**	**1.8099**	**0.8729**	**0.0115**		**0.1451**	**0.1451**		**0.1451**	**0.1451**	**0.0000**	**2,078.8183**	**2,078.8183**	**0.0399**	**0.0381**	**2,091.1717**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	128969	14.9243	1.7000e-003	3.5000e-004	15.0713
General Office Building	2.12582e+006	246.0005	0.0280	5.7900e-003	248.4236
Industrial Park	5.15335e+006	596.3487	0.0678	0.0140	602.2229
Single Family Housing	1.43141e+007	1,656.437 7	0.1883	0.0390	1,672.754 0
Strip Mall	2.77119e+006	320.6835	0.0365	7.5400e-003	323.8423
Total		**2,834.394 6**	**0.3222**	**0.0667**	**2,862.314 1**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	125189	14.4870	1.6500e-003	3.4000e-004	14.6297
General Office Building	2.03241e+006	235.1918	0.0267	5.5300e-003	237.5085
Industrial Park	4.92693e+006	570.1466	0.0648	0.0134	575.7627
Single Family Housing	1.4009e+007	1,621.1317	0.1843	0.0381	1,637.1003
Strip Mall	2.66049e+006	307.8732	0.0350	7.2400e-003	310.9058
Total		**2,748.8302**	**0.3125**	**0.0647**	**2,775.9069**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	20.0744	0.1404	12.1272	6.4000e-004		0.0673	0.0673		0.0673	0.0673	0.0000	19.7717	19.7717	0.0188	0.0000	20.2406
Unmitigated	20.6645	0.7701	12.6789	4.6600e-003		0.1197	0.1197		0.1197	0.1197	0.0000	746.4057	746.4057	0.0333	0.0133	751.2055

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	3.6739					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	16.5455					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0734	0.6269	0.2668	4.0000e-003		0.0507	0.0507		0.0507	0.0507	0.0000	726.0556	726.0556	0.0139	0.0133	730.3702
Landscaping	0.3718	0.1432	12.4121	6.6000e-004		0.0691	0.0691		0.0691	0.0691	0.0000	20.3501	20.3501	0.0194	0.0000	20.8353
Total	**20.6645**	**0.7701**	**12.6789**	**4.6600e-003**		**0.1197**	**0.1197**		**0.1197**	**0.1197**	**0.0000**	**746.4057**	**746.4057**	**0.0333**	**0.0133**	**751.2055**

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	3.1698					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	16.5455					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.3592	0.1404	12.1272	6.4000e-004		0.0673	0.0673		0.0673	0.0673	0.0000	19.7717	19.7717	0.0188	0.0000	20.2406
Total	**20.0744**	**0.1404**	**12.1272**	**6.4000e-004**		**0.0673**	**0.0673**		**0.0673**	**0.0673**	**0.0000**	**19.7717**	**19.7717**	**0.0188**	**0.0000**	**20.2406**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	291.4946	2.6632	0.2047	419.0773
Unmitigated	364.3682	3.3290	0.2559	523.8466

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.88947 / 1.19119	2.3341	0.0194	1.4900e-003	3.2635
General Office Building	45.3577 / 27.7999	55.7085	0.4652	0.0358	78.0167
Industrial Park	143.063 / 0	140.1966	1.4633	0.1122	210.2092
Single Family Housing	107.309 / 67.6511	132.5589	1.1007	0.0848	185.3440
Strip Mall	27.3328 / 16.7523	33.5702	0.2804	0.0216	47.0133
Total		**364.3683**	**3.3290**	**0.2559**	**523.8466**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.51157 / 0.952948	1.8673	0.0155	1.1900e-003	2.6108
General Office Building	36.2861 / 22.2399	44.5668	0.3722	0.0287	62.4133
Industrial Park	114.45 / 0	112.1573	1.1707	0.0897	168.1674
Single Family Housing	85.8469 / 54.1209	106.0472	0.8806	0.0678	148.2752
Strip Mall	21.8662 / 13.4019	26.8562	0.2243	0.0173	37.6106
Total		**291.4946**	**2.6632**	**0.2047**	**419.0773**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	253.1033	14.9580	0.0000	627.0528
Unmitigated	253.1033	14.9580	0.0000	627.0528

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	5.6	1.1368	0.0672	0.0000	2.8163
General Office Building	90.19	18.3078	1.0820	0.0000	45.3567
Industrial Park	291.51	59.1739	3.4971	0.0000	146.6008
Single Family Housing	712.15	144.5600	8.5433	0.0000	358.1413
Strip Mall	147.42	29.9249	1.7685	0.0000	74.1377
Total		**253.1033**	**14.9580**	**0.0000**	**627.0528**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	5.6	1.1368	0.0672	0.0000	2.8163
General Office Building	90.19	18.3078	1.0820	0.0000	45.3567
Industrial Park	291.51	59.1739	3.4971	0.0000	146.6008
Single Family Housing	712.15	144.5600	8.5433	0.0000	358.1413
Strip Mall	147.42	29.9249	1.7685	0.0000	74.1377
Total		**253.1033**	**14.9580**	**0.0000**	**627.0528**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Winton - Operational - Mitigated - GHG Reductions (17,20 & 21a)

Merced County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	255.20	1000sqft	16.01	255,200.00	0
Industrial Park	618.65	1000sqft	50.95	618,650.00	0
Apartments Mid Rise	29.00	Dwelling Unit	2.34	29,000.00	83
Single Family Housing	1,647.00	Dwelling Unit	488.00	2,964,600.00	4710
Strip Mall	369.00	1000sqft	35.00	369,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	49
Climate Zone	3			**Operational Year**	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	255.12	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - Construction modeled separately

Off-road Equipment - See assumptions

Vehicle Trips - See Assumptions

Road Dust - see assumptions

Energy Use - See Assumptions

Water And Wastewater - See Assumptions

Solid Waste - See Assumptions

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation - See Assumptions

Waste Mitigation -

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	150	50
tblEnergyUse	T24E	700.71	651.66
tblEnergyUse	T24E	2.62	1.83
tblEnergyUse	T24E	2.62	1.83
tblEnergyUse	T24E	995.93	926.22
tblEnergyUse	T24E	2.14	1.50
tblEnergyUse	T24NG	8,454.86	7,863.02
tblEnergyUse	T24NG	12.77	8.94
tblEnergyUse	T24NG	12.77	0.89

tblEnergyUse	T24NG	22,422.24	20,852.68
tblEnergyUse	T24NG	8.62	6.03
tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LHD1	8.2190e-003	0.02
tblFleetMix	LHD1	8.2190e-003	0.02
tblFleetMix	LHD1	8.2190e-003	0.02
tblFleetMix	LHD1	8.2190e-003	0.02
tblFleetMix	LHD1	8.2190e-003	0.02

tblFleetMix	LHD2	3.1010e-003	4.6720e-003
tblFleetMix	LHD2	3.1010e-003	4.6720e-003
tblFleetMix	LHD2	3.1010e-003	4.6720e-003
tblFleetMix	LHD2	3.1010e-003	4.6720e-003
tblFleetMix	LHD2	3.1010e-003	4.6720e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MH	3.9400e-004	5.3900e-004
tblFleetMix	MH	3.9400e-004	5.3900e-004
tblFleetMix	MH	3.9400e-004	5.3900e-004
tblFleetMix	MH	3.9400e-004	5.3900e-004
tblFleetMix	MH	3.9400e-004	5.3900e-004
tblFleetMix	MHD	0.01	0.02
tblFleetMix	MHD	0.01	0.02
tblFleetMix	MHD	0.01	0.02
tblFleetMix	MHD	0.01	0.02
tblFleetMix	MHD	0.01	0.02
tblFleetMix	OBUS	2.3180e-003	1.6850e-003
tblFleetMix	OBUS	2.3180e-003	1.6850e-003

tblFleetMix	OBUS	2.3180e-003	1.6850e-003
tblFleetMix	OBUS	2.3180e-003	1.6850e-003
tblFleetMix	OBUS	2.3180e-003	1.6850e-003
tblFleetMix	SBUS	1.1980e-003	1.8630e-003
tblFleetMix	SBUS	1.1980e-003	1.8630e-003
tblFleetMix	SBUS	1.1980e-003	1.8630e-003
tblFleetMix	SBUS	1.1980e-003	1.8630e-003
tblFleetMix	SBUS	1.1980e-003	1.8630e-003
tblFleetMix	UBUS	1.4170e-003	1.4970e-003
tblFleetMix	UBUS	1.4170e-003	1.4970e-003
tblFleetMix	UBUS	1.4170e-003	1.4970e-003
tblFleetMix	UBUS	1.4170e-003	1.4970e-003
tblFleetMix	UBUS	1.4170e-003	1.4970e-003
tblLandUse	LotAcreage	5.86	16.01
tblLandUse	LotAcreage	14.20	50.95
tblLandUse	LotAcreage	0.76	2.34
tblLandUse	LotAcreage	534.74	488.00
tblLandUse	LotAcreage	8.47	35.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	255.12
tblSolidWaste	SolidWasteGenerationRate	13.34	5.60
tblSolidWaste	SolidWasteGenerationRate	237.34	90.19
tblSolidWaste	SolidWasteGenerationRate	767.13	291.51
tblSolidWaste	SolidWasteGenerationRate	1,695.60	712.15
tblSolidWaste	SolidWasteGenerationRate	387.45	147.42
tblVehicleEF	HHD	2.26	0.02
tblVehicleEF	HHD	5.9230e-003	2.2340e-003

tblVehicleEF	HHD	0.06	0.00
tblVehicleEF	HHD	1.83	7.50
tblVehicleEF	HHD	0.50	0.21
tblVehicleEF	HHD	0.45	5.7900e-004
tblVehicleEF	HHD	5,420.44	1,007.75
tblVehicleEF	HHD	1,442.40	1,040.69
tblVehicleEF	HHD	1.35	4.2460e-003
tblVehicleEF	HHD	15.17	6.02
tblVehicleEF	HHD	1.35	2.16
tblVehicleEF	HHD	20.70	2.24
tblVehicleEF	HHD	1.8290e-003	2.1960e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.3490e-003	0.03
tblVehicleEF	HHD	1.4000e-005	0.00
tblVehicleEF	HHD	1.7500e-003	2.1010e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9730e-003	8.9820e-003
tblVehicleEF	HHD	5.1170e-003	0.02
tblVehicleEF	HHD	1.3000e-005	0.00
tblVehicleEF	HHD	1.9000e-005	0.00
tblVehicleEF	HHD	6.3800e-004	5.0000e-006
tblVehicleEF	HHD	0.49	0.51
tblVehicleEF	HHD	1.0000e-005	0.00
tblVehicleEF	HHD	0.08	0.02
tblVehicleEF	HHD	4.9000e-005	2.2000e-005
tblVehicleEF	HHD	7.7960e-003	0.00

tblVehicleEF	HHD	0.05	9.5170e-003
tblVehicleEF	HHD	0.01	9.8230e-003
tblVehicleEF	HHD	2.1000e-005	0.00
tblVehicleEF	HHD	1.9000e-005	0.00
tblVehicleEF	HHD	6.3800e-004	5.0000e-006
tblVehicleEF	HHD	0.56	0.58
tblVehicleEF	HHD	1.0000e-005	0.00
tblVehicleEF	HHD	0.09	0.02
tblVehicleEF	HHD	4.9000e-005	2.2000e-005
tblVehicleEF	HHD	8.5360e-003	0.00
tblVehicleEF	HHD	2.13	0.03
tblVehicleEF	HHD	5.9290e-003	2.2340e-003
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	1.33	7.41
tblVehicleEF	HHD	0.50	0.21
tblVehicleEF	HHD	0.41	5.3700e-004
tblVehicleEF	HHD	5,742.47	994.62
tblVehicleEF	HHD	1,442.40	1,040.69
tblVehicleEF	HHD	1.35	4.1790e-003
tblVehicleEF	HHD	15.66	5.72
tblVehicleEF	HHD	1.29	2.06
tblVehicleEF	HHD	20.70	2.24
tblVehicleEF	HHD	1.5420e-003	1.9500e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.3490e-003	0.03
tblVehicleEF	HHD	1.4000e-005	0.00

tblVehicleEF	HHD	1.4750e-003	1.8650e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9730e-003	8.9820e-003
tblVehicleEF	HHD	5.1170e-003	0.02
tblVehicleEF	HHD	1.3000e-005	0.00
tblVehicleEF	HHD	4.5000e-005	0.00
tblVehicleEF	HHD	7.0500e-004	5.0000e-006
tblVehicleEF	HHD	0.46	0.54
tblVehicleEF	HHD	1.9000e-005	0.00
tblVehicleEF	HHD	0.08	0.02
tblVehicleEF	HHD	4.9000e-005	2.2000e-005
tblVehicleEF	HHD	7.3640e-003	0.00
tblVehicleEF	HHD	0.05	9.3930e-003
tblVehicleEF	HHD	0.01	9.8230e-003
tblVehicleEF	HHD	2.0000e-005	0.00
tblVehicleEF	HHD	4.5000e-005	0.00
tblVehicleEF	HHD	7.0500e-004	5.0000e-006
tblVehicleEF	HHD	0.53	0.61
tblVehicleEF	HHD	1.9000e-005	0.00
tblVehicleEF	HHD	0.09	0.02
tblVehicleEF	HHD	4.9000e-005	2.2000e-005
tblVehicleEF	HHD	8.0630e-003	0.00
tblVehicleEF	HHD	2.44	0.02
tblVehicleEF	HHD	5.9160e-003	2.2330e-003
tblVehicleEF	HHD	0.06	0.00
tblVehicleEF	HHD	2.52	7.64
tblVehicleEF	HHD	0.50	0.21

tblVehicleEF	HHD	0.48	6.3000e-004
tblVehicleEF	HHD	4,975.72	1,025.89
tblVehicleEF	HHD	1,442.40	1,040.69
tblVehicleEF	HHD	1.35	4.3280e-003
tblVehicleEF	HHD	14.50	6.43
tblVehicleEF	HHD	1.38	2.20
tblVehicleEF	HHD	20.70	2.24
tblVehicleEF	HHD	2.2260e-003	2.5360e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.3490e-003	0.03
tblVehicleEF	HHD	1.4000e-005	0.00
tblVehicleEF	HHD	2.1290e-003	2.4260e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9730e-003	8.9820e-003
tblVehicleEF	HHD	5.1170e-003	0.02
tblVehicleEF	HHD	1.3000e-005	0.00
tblVehicleEF	HHD	7.0000e-006	0.00
tblVehicleEF	HHD	6.3500e-004	5.0000e-006
tblVehicleEF	HHD	0.53	0.47
tblVehicleEF	HHD	5.0000e-006	0.00
tblVehicleEF	HHD	0.08	0.02
tblVehicleEF	HHD	5.5000e-005	2.5000e-005
tblVehicleEF	HHD	8.2950e-003	0.00
tblVehicleEF	HHD	0.05	9.6890e-003
tblVehicleEF	HHD	0.01	9.8230e-003
tblVehicleEF	HHD	2.1000e-005	0.00

tblVehicleEF	HHD	7.0000e-006	0.00
tblVehicleEF	HHD	6.3500e-004	5.0000e-006
tblVehicleEF	HHD	0.61	0.53
tblVehicleEF	HHD	5.0000e-006	0.00
tblVehicleEF	HHD	0.09	0.02
tblVehicleEF	HHD	5.5000e-005	2.5000e-005
tblVehicleEF	HHD	9.0820e-003	0.00
tblVehicleEF	LDA	1.6980e-003	8.9200e-004
tblVehicleEF	LDA	1.2810e-003	0.02
tblVehicleEF	LDA	0.31	0.42
tblVehicleEF	LDA	0.47	1.54
tblVehicleEF	LDA	178.24	200.23
tblVehicleEF	LDA	38.17	39.46
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.12
tblVehicleEF	LDA	9.4600e-004	8.0800e-004
tblVehicleEF	LDA	1.4000e-003	1.0410e-003
tblVehicleEF	LDA	8.7000e-004	7.4400e-004
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tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.2700e-003	2.7960e-003
tblVehicleEF	LDA	0.02	0.17
tblVehicleEF	LDA	0.02	0.09
tblVehicleEF	LDA	1.7830e-003	1.9810e-003
tblVehicleEF	LDA	3.8900e-004	3.9000e-004

tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	6.2060e-003	4.0610e-003
tblVehicleEF	LDA	0.02	0.17
tblVehicleEF	LDA	0.02	0.10
tblVehicleEF	LDA	1.9530e-003	1.0380e-003
tblVehicleEF	LDA	1.0560e-003	0.02
tblVehicleEF	LDA	0.38	0.52
tblVehicleEF	LDA	0.39	1.29
tblVehicleEF	LDA	195.64	219.28
tblVehicleEF	LDA	38.17	39.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.11
tblVehicleEF	LDA	9.4600e-004	8.0800e-004
tblVehicleEF	LDA	1.4000e-003	1.0410e-003
tblVehicleEF	LDA	8.7000e-004	7.4400e-004
tblVehicleEF	LDA	1.2880e-003	9.5800e-004
tblVehicleEF	LDA	0.05	0.08
tblVehicleEF	LDA	0.06	0.07
tblVehicleEF	LDA	0.03	0.05
tblVehicleEF	LDA	4.9000e-003	3.2010e-003
tblVehicleEF	LDA	0.02	0.17
tblVehicleEF	LDA	0.01	0.08
tblVehicleEF	LDA	1.9580e-003	2.1690e-003
tblVehicleEF	LDA	3.8800e-004	3.8600e-004
tblVehicleEF	LDA	0.05	0.08

tblVehicleEF	LDA	0.06	0.07
tblVehicleEF	LDA	0.03	0.05
tblVehicleEF	LDA	7.1260e-003	4.6530e-003
tblVehicleEF	LDA	0.02	0.17
tblVehicleEF	LDA	0.02	0.09
tblVehicleEF	LDA	1.5960e-003	8.2700e-004
tblVehicleEF	LDA	1.5000e-003	0.03
tblVehicleEF	LDA	0.28	0.39
tblVehicleEF	LDA	0.57	1.87
tblVehicleEF	LDA	172.00	193.41
tblVehicleEF	LDA	38.17	40.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.13
tblVehicleEF	LDA	9.4600e-004	8.0800e-004
tblVehicleEF	LDA	1.4000e-003	1.0410e-003
tblVehicleEF	LDA	8.7000e-004	7.4400e-004
tblVehicleEF	LDA	1.2880e-003	9.5800e-004
tblVehicleEF	LDA	6.6130e-003	0.01
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	5.6950e-003	9.6750e-003
tblVehicleEF	LDA	4.0170e-003	2.6330e-003
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.02	0.11
tblVehicleEF	LDA	1.7200e-003	1.9130e-003
tblVehicleEF	LDA	3.9100e-004	3.9600e-004
tblVehicleEF	LDA	6.6130e-003	0.01
tblVehicleEF	LDA	0.05	0.06

tblVehicleEF	LDA	5.6950e-003	9.6750e-003
tblVehicleEF	LDA	5.8370e-003	3.8230e-003
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.02	0.12
tblVehicleEF	LDT1	3.0530e-003	1.4300e-003
tblVehicleEF	LDT1	3.6040e-003	0.03
tblVehicleEF	LDT1	0.45	0.51
tblVehicleEF	LDT1	0.90	1.66
tblVehicleEF	LDT1	229.29	239.80
tblVehicleEF	LDT1	50.14	48.10
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.04	0.14
tblVehicleEF	LDT1	1.1950e-003	9.2400e-004
tblVehicleEF	LDT1	1.7740e-003	1.1910e-003
tblVehicleEF	LDT1	1.0990e-003	8.4900e-004
tblVehicleEF	LDT1	1.6310e-003	1.0950e-003
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.04	0.05
tblVehicleEF	LDT1	7.5680e-003	5.2150e-003
tblVehicleEF	LDT1	0.06	0.34
tblVehicleEF	LDT1	0.05	0.13
tblVehicleEF	LDT1	2.2960e-003	2.3730e-003
tblVehicleEF	LDT1	5.1600e-004	4.7600e-004
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.04	0.05

tblVehicleEF	LDT1	0.01	7.6240e-003
tblVehicleEF	LDT1	0.06	0.34
tblVehicleEF	LDT1	0.05	0.14
tblVehicleEF	LDT1	3.4960e-003	1.6560e-003
tblVehicleEF	LDT1	2.9720e-003	0.03
tblVehicleEF	LDT1	0.56	0.63
tblVehicleEF	LDT1	0.74	1.39
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tblVehicleEF	LDT1	50.14	47.61
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.04	0.13
tblVehicleEF	LDT1	1.1950e-003	9.2400e-004
tblVehicleEF	LDT1	1.7740e-003	1.1910e-003
tblVehicleEF	LDT1	1.0990e-003	8.4900e-004
tblVehicleEF	LDT1	1.6310e-003	1.0950e-003
tblVehicleEF	LDT1	0.15	0.16
tblVehicleEF	LDT1	0.14	0.11
tblVehicleEF	LDT1	0.09	0.10
tblVehicleEF	LDT1	8.6640e-003	5.9660e-003
tblVehicleEF	LDT1	0.06	0.33
tblVehicleEF	LDT1	0.04	0.11
tblVehicleEF	LDT1	2.5170e-003	2.5670e-003
tblVehicleEF	LDT1	5.1300e-004	4.7100e-004
tblVehicleEF	LDT1	0.15	0.16
tblVehicleEF	LDT1	0.14	0.11
tblVehicleEF	LDT1	0.09	0.10
tblVehicleEF	LDT1	0.01	8.7210e-003

tblVehicleEF	LDT1	0.06	0.33
tblVehicleEF	LDT1	0.04	0.12
tblVehicleEF	LDT1	2.8750e-003	1.3290e-003
tblVehicleEF	LDT1	4.2230e-003	0.03
tblVehicleEF	LDT1	0.42	0.47
tblVehicleEF	LDT1	1.09	2.02
tblVehicleEF	LDT1	221.43	232.79
tblVehicleEF	LDT1	50.14	48.72
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.05	0.16
tblVehicleEF	LDT1	1.1950e-003	9.2400e-004
tblVehicleEF	LDT1	1.7740e-003	1.1910e-003
tblVehicleEF	LDT1	1.0990e-003	8.4900e-004
tblVehicleEF	LDT1	1.6310e-003	1.0950e-003
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	7.1250e-003	4.9120e-003
tblVehicleEF	LDT1	0.07	0.41
tblVehicleEF	LDT1	0.06	0.15
tblVehicleEF	LDT1	2.2170e-003	2.3040e-003
tblVehicleEF	LDT1	5.1900e-004	4.8200e-004
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.01	7.1800e-003
tblVehicleEF	LDT1	0.07	0.41

tblVehicleEF	LDT1	0.06	0.16
tblVehicleEF	LDT2	2.7600e-003	1.5570e-003
tblVehicleEF	LDT2	2.4660e-003	0.03
tblVehicleEF	LDT2	0.47	0.55
tblVehicleEF	LDT2	0.75	2.06
tblVehicleEF	LDT2	260.94	242.47
tblVehicleEF	LDT2	56.29	48.96
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.04	0.15
tblVehicleEF	LDT2	1.1130e-003	9.1200e-004
tblVehicleEF	LDT2	1.6240e-003	1.0960e-003
tblVehicleEF	LDT2	1.0240e-003	8.4000e-004
tblVehicleEF	LDT2	1.4940e-003	1.0080e-003
tblVehicleEF	LDT2	0.04	0.07
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	6.8660e-003	5.6520e-003
tblVehicleEF	LDT2	0.04	0.31
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	2.6120e-003	2.3990e-003
tblVehicleEF	LDT2	5.7500e-004	4.8500e-004
tblVehicleEF	LDT2	0.04	0.07
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.01	8.2050e-003
tblVehicleEF	LDT2	0.04	0.31
tblVehicleEF	LDT2	0.04	0.16

tblVehicleEF	LDT2	3.1650e-003	1.8040e-003
tblVehicleEF	LDT2	2.0740e-003	0.03
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tblVehicleEF	LDT2	0.64	1.71
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tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.04	0.14
tblVehicleEF	LDT2	1.1130e-003	9.1200e-004
tblVehicleEF	LDT2	1.6240e-003	1.0960e-003
tblVehicleEF	LDT2	1.0240e-003	8.4000e-004
tblVehicleEF	LDT2	1.4940e-003	1.0080e-003
tblVehicleEF	LDT2	0.09	0.16
tblVehicleEF	LDT2	0.08	0.10
tblVehicleEF	LDT2	0.06	0.11
tblVehicleEF	LDT2	7.8700e-003	6.4460e-003
tblVehicleEF	LDT2	0.04	0.30
tblVehicleEF	LDT2	0.03	0.12
tblVehicleEF	LDT2	2.8630e-003	2.5760e-003
tblVehicleEF	LDT2	5.7300e-004	4.7800e-004
tblVehicleEF	LDT2	0.09	0.16
tblVehicleEF	LDT2	0.08	0.10
tblVehicleEF	LDT2	0.06	0.11
tblVehicleEF	LDT2	0.01	9.3670e-003
tblVehicleEF	LDT2	0.04	0.30
tblVehicleEF	LDT2	0.03	0.13
tblVehicleEF	LDT2	2.5960e-003	1.4450e-003

tblVehicleEF	LDT2	2.8470e-003	0.04
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tblVehicleEF	LDT2	0.04	0.16
tblVehicleEF	LDT2	1.1130e-003	9.1200e-004
tblVehicleEF	LDT2	1.6240e-003	1.0960e-003
tblVehicleEF	LDT2	1.0240e-003	8.4000e-004
tblVehicleEF	LDT2	1.4940e-003	1.0080e-003
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	6.4620e-003	5.3310e-003
tblVehicleEF	LDT2	0.05	0.38
tblVehicleEF	LDT2	0.04	0.17
tblVehicleEF	LDT2	2.5220e-003	2.3350e-003
tblVehicleEF	LDT2	5.7700e-004	4.9200e-004
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	9.4150e-003	7.7360e-003
tblVehicleEF	LDT2	0.05	0.38
tblVehicleEF	LDT2	0.04	0.19
tblVehicleEF	LHD1	3.3030e-003	3.4300e-003
tblVehicleEF	LHD1	7.2730e-003	5.1120e-003

tblVehicleEF	LHD1	7.8940e-003	7.1800e-003
tblVehicleEF	LHD1	0.13	0.16
tblVehicleEF	LHD1	0.61	0.50
tblVehicleEF	LHD1	1.27	0.75
tblVehicleEF	LHD1	9.21	8.46
tblVehicleEF	LHD1	631.32	664.88
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tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.90	0.51
tblVehicleEF	LHD1	0.53	0.18
tblVehicleEF	LHD1	8.9900e-004	1.0850e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	9.8490e-003
tblVehicleEF	LHD1	4.8600e-004	1.6500e-004
tblVehicleEF	LHD1	8.6000e-004	1.0380e-003
tblVehicleEF	LHD1	2.6370e-003	2.5240e-003
tblVehicleEF	LHD1	0.01	9.3840e-003
tblVehicleEF	LHD1	4.4700e-004	1.5200e-004
tblVehicleEF	LHD1	2.0260e-003	1.7370e-003
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tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	9.4300e-004	7.9800e-004
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.11	0.03
tblVehicleEF	LHD1	9.1000e-005	8.2000e-005
tblVehicleEF	LHD1	6.1560e-003	6.4670e-003

tblVehicleEF	LHD1	2.5100e-004	8.3000e-005
tblVehicleEF	LHD1	2.0260e-003	1.7370e-003
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.4300e-004	7.9800e-004
tblVehicleEF	LHD1	0.12	0.10
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.12	0.04
tblVehicleEF	LHD1	3.3030e-003	3.4400e-003
tblVehicleEF	LHD1	7.3480e-003	5.1600e-003
tblVehicleEF	LHD1	7.4550e-003	6.8040e-003
tblVehicleEF	LHD1	0.13	0.16
tblVehicleEF	LHD1	0.61	0.50
tblVehicleEF	LHD1	1.18	0.70
tblVehicleEF	LHD1	9.21	8.46
tblVehicleEF	LHD1	631.32	664.88
tblVehicleEF	LHD1	22.81	8.27
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.85	0.48
tblVehicleEF	LHD1	0.50	0.17
tblVehicleEF	LHD1	8.9900e-004	1.0850e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	9.8490e-003
tblVehicleEF	LHD1	4.8600e-004	1.6500e-004
tblVehicleEF	LHD1	8.6000e-004	1.0380e-003
tblVehicleEF	LHD1	2.6370e-003	2.5240e-003
tblVehicleEF	LHD1	0.01	9.3840e-003

tblVehicleEF	LHD1	4.4700e-004	1.5200e-004
tblVehicleEF	LHD1	4.7920e-003	4.1240e-003
tblVehicleEF	LHD1	0.07	0.06
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	1.8750e-003	1.6030e-003
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.10	0.03
tblVehicleEF	LHD1	9.1000e-005	8.2000e-005
tblVehicleEF	LHD1	6.1560e-003	6.4670e-003
tblVehicleEF	LHD1	2.5000e-004	8.2000e-005
tblVehicleEF	LHD1	4.7920e-003	4.1240e-003
tblVehicleEF	LHD1	0.07	0.06
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.8750e-003	1.6030e-003
tblVehicleEF	LHD1	0.12	0.10
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.11	0.04
tblVehicleEF	LHD1	3.3030e-003	3.4200e-003
tblVehicleEF	LHD1	7.1910e-003	5.0610e-003
tblVehicleEF	LHD1	8.3800e-003	7.5890e-003
tblVehicleEF	LHD1	0.13	0.16
tblVehicleEF	LHD1	0.60	0.49
tblVehicleEF	LHD1	1.37	0.81
tblVehicleEF	LHD1	9.21	8.46
tblVehicleEF	LHD1	631.32	664.87
tblVehicleEF	LHD1	22.81	8.46

tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.92	0.52
tblVehicleEF	LHD1	0.57	0.19
tblVehicleEF	LHD1	8.9900e-004	1.0850e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	9.8490e-003
tblVehicleEF	LHD1	4.8600e-004	1.6500e-004
tblVehicleEF	LHD1	8.6000e-004	1.0380e-003
tblVehicleEF	LHD1	2.6370e-003	2.5240e-003
tblVehicleEF	LHD1	0.01	9.3840e-003
tblVehicleEF	LHD1	4.4700e-004	1.5200e-004
tblVehicleEF	LHD1	7.3900e-004	6.2300e-004
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	4.3600e-004	3.6500e-004
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.15	0.29
tblVehicleEF	LHD1	0.11	0.04
tblVehicleEF	LHD1	9.1000e-005	8.2000e-005
tblVehicleEF	LHD1	6.1560e-003	6.4670e-003
tblVehicleEF	LHD1	2.5300e-004	8.4000e-005
tblVehicleEF	LHD1	7.3900e-004	6.2300e-004
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	4.3600e-004	3.6500e-004
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.15	0.29

tblVehicleEF	LHD1	0.12	0.04
tblVehicleEF	LHD2	2.2910e-003	2.1400e-003
tblVehicleEF	LHD2	5.0030e-003	5.6170e-003
tblVehicleEF	LHD2	2.5640e-003	3.8460e-003
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	0.45	0.56
tblVehicleEF	LHD2	0.82	0.40
tblVehicleEF	LHD2	13.62	13.53
tblVehicleEF	LHD2	666.89	658.82
tblVehicleEF	LHD2	20.75	5.33
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.20	0.62
tblVehicleEF	LHD2	0.23	0.11
tblVehicleEF	LHD2	9.8100e-004	1.5680e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.7600e-003	0.02
tblVehicleEF	LHD2	3.5900e-004	8.3000e-005
tblVehicleEF	LHD2	9.3900e-004	1.5000e-003
tblVehicleEF	LHD2	2.7150e-003	2.7420e-003
tblVehicleEF	LHD2	8.3590e-003	0.02
tblVehicleEF	LHD2	3.3000e-004	7.7000e-005
tblVehicleEF	LHD2	6.8500e-004	8.3500e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.4000e-004	4.1400e-004
tblVehicleEF	LHD2	0.09	0.11
tblVehicleEF	LHD2	0.03	0.11

tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	1.3200e-004	1.2900e-004
tblVehicleEF	LHD2	6.4770e-003	6.3420e-003
tblVehicleEF	LHD2	2.2100e-004	5.3000e-005
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tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.4000e-004	4.1400e-004
tblVehicleEF	LHD2	0.10	0.12
tblVehicleEF	LHD2	0.03	0.11
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	2.2910e-003	2.1460e-003
tblVehicleEF	LHD2	5.0270e-003	5.6390e-003
tblVehicleEF	LHD2	2.5020e-003	3.6460e-003
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	0.45	0.56
tblVehicleEF	LHD2	0.77	0.37
tblVehicleEF	LHD2	13.62	13.53
tblVehicleEF	LHD2	666.89	658.82
tblVehicleEF	LHD2	20.75	5.28
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.19	0.59
tblVehicleEF	LHD2	0.22	0.10
tblVehicleEF	LHD2	9.8100e-004	1.5680e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.7600e-003	0.02
tblVehicleEF	LHD2	3.5900e-004	8.3000e-005

tblVehicleEF	LHD2	9.3900e-004	1.5000e-003
tblVehicleEF	LHD2	2.7150e-003	2.7420e-003
tblVehicleEF	LHD2	8.3590e-003	0.02
tblVehicleEF	LHD2	3.3000e-004	7.7000e-005
tblVehicleEF	LHD2	1.6100e-003	1.9570e-003
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	6.7700e-004	8.1500e-004
tblVehicleEF	LHD2	0.09	0.11
tblVehicleEF	LHD2	0.03	0.11
tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	1.3200e-004	1.2900e-004
tblVehicleEF	LHD2	6.4770e-003	6.3420e-003
tblVehicleEF	LHD2	2.2000e-004	5.2000e-005
tblVehicleEF	LHD2	1.6100e-003	1.9570e-003
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	6.7700e-004	8.1500e-004
tblVehicleEF	LHD2	0.10	0.12
tblVehicleEF	LHD2	0.03	0.11
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	2.2910e-003	2.1340e-003
tblVehicleEF	LHD2	4.9760e-003	5.5940e-003
tblVehicleEF	LHD2	2.6330e-003	4.0640e-003
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	0.45	0.56
tblVehicleEF	LHD2	0.89	0.43

tblVehicleEF	LHD2	13.62	13.53
tblVehicleEF	LHD2	666.89	658.81
tblVehicleEF	LHD2	20.75	5.38
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.21	0.63
tblVehicleEF	LHD2	0.23	0.11
tblVehicleEF	LHD2	9.8100e-004	1.5680e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.7600e-003	0.02
tblVehicleEF	LHD2	3.5900e-004	8.3000e-005
tblVehicleEF	LHD2	9.3900e-004	1.5000e-003
tblVehicleEF	LHD2	2.7150e-003	2.7420e-003
tblVehicleEF	LHD2	8.3590e-003	0.02
tblVehicleEF	LHD2	3.3000e-004	7.7000e-005
tblVehicleEF	LHD2	2.4900e-004	3.0800e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	1.5600e-004	1.9300e-004
tblVehicleEF	LHD2	0.09	0.11
tblVehicleEF	LHD2	0.03	0.13
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	1.3200e-004	1.2900e-004
tblVehicleEF	LHD2	6.4770e-003	6.3420e-003
tblVehicleEF	LHD2	2.2200e-004	5.3000e-005
tblVehicleEF	LHD2	2.4900e-004	3.0800e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02

tblVehicleEF	LHD2	1.5600e-004	1.9300e-004
tblVehicleEF	LHD2	0.10	0.12
tblVehicleEF	LHD2	0.03	0.13
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	MCY	0.50	0.35
tblVehicleEF	MCY	0.15	0.24
tblVehicleEF	MCY	18.22	18.20
tblVehicleEF	MCY	10.30	9.15
tblVehicleEF	MCY	179.23	217.41
tblVehicleEF	MCY	43.15	59.15
tblVehicleEF	MCY	1.15	1.15
tblVehicleEF	MCY	0.31	0.27
tblVehicleEF	MCY	2.3650e-003	2.3630e-003
tblVehicleEF	MCY	3.1050e-003	2.7270e-003
tblVehicleEF	MCY	2.2060e-003	2.2040e-003
tblVehicleEF	MCY	2.9020e-003	2.5480e-003
tblVehicleEF	MCY	1.51	1.51
tblVehicleEF	MCY	0.83	0.83
tblVehicleEF	MCY	0.70	0.70
tblVehicleEF	MCY	2.33	2.33
tblVehicleEF	MCY	0.26	1.39
tblVehicleEF	MCY	2.09	1.85
tblVehicleEF	MCY	2.1600e-003	2.1510e-003
tblVehicleEF	MCY	6.6100e-004	5.8500e-004
tblVehicleEF	MCY	1.51	1.51
tblVehicleEF	MCY	0.83	0.83
tblVehicleEF	MCY	0.70	0.70

tblVehicleEF	MCY	2.91	2.91
tblVehicleEF	MCY	0.26	1.39
tblVehicleEF	MCY	2.27	2.01
tblVehicleEF	MCY	0.49	0.34
tblVehicleEF	MCY	0.13	0.21
tblVehicleEF	MCY	18.42	18.40
tblVehicleEF	MCY	9.08	8.04
tblVehicleEF	MCY	179.23	217.59
tblVehicleEF	MCY	43.15	56.49
tblVehicleEF	MCY	1.00	1.00
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.3650e-003	2.3630e-003
tblVehicleEF	MCY	3.1050e-003	2.7270e-003
tblVehicleEF	MCY	2.2060e-003	2.2040e-003
tblVehicleEF	MCY	2.9020e-003	2.5480e-003
tblVehicleEF	MCY	3.87	3.87
tblVehicleEF	MCY	1.34	1.35
tblVehicleEF	MCY	1.80	1.80
tblVehicleEF	MCY	2.29	2.29
tblVehicleEF	MCY	0.25	1.35
tblVehicleEF	MCY	1.78	1.58
tblVehicleEF	MCY	2.1620e-003	2.1530e-003
tblVehicleEF	MCY	6.3200e-004	5.5900e-004
tblVehicleEF	MCY	3.87	3.87
tblVehicleEF	MCY	1.34	1.35
tblVehicleEF	MCY	1.80	1.80
tblVehicleEF	MCY	2.86	2.86

tblVehicleEF	MCY	0.25	1.35
tblVehicleEF	MCY	1.94	1.72
tblVehicleEF	MCY	0.51	0.36
tblVehicleEF	MCY	0.18	0.29
tblVehicleEF	MCY	19.46	19.44
tblVehicleEF	MCY	12.03	10.74
tblVehicleEF	MCY	179.23	219.68
tblVehicleEF	MCY	43.15	62.83
tblVehicleEF	MCY	1.25	1.25
tblVehicleEF	MCY	0.34	0.29
tblVehicleEF	MCY	2.3650e-003	2.3630e-003
tblVehicleEF	MCY	3.1050e-003	2.7270e-003
tblVehicleEF	MCY	2.2060e-003	2.2040e-003
tblVehicleEF	MCY	2.9020e-003	2.5480e-003
tblVehicleEF	MCY	0.42	0.42
tblVehicleEF	MCY	0.82	0.82
tblVehicleEF	MCY	0.20	0.20
tblVehicleEF	MCY	2.41	2.41
tblVehicleEF	MCY	0.31	1.67
tblVehicleEF	MCY	2.46	2.19
tblVehicleEF	MCY	2.1830e-003	2.1740e-003
tblVehicleEF	MCY	7.0100e-004	6.2200e-004
tblVehicleEF	MCY	0.42	0.42
tblVehicleEF	MCY	0.82	0.82
tblVehicleEF	MCY	0.20	0.20
tblVehicleEF	MCY	3.02	3.01
tblVehicleEF	MCY	0.31	1.67

tblVehicleEF	MCY	2.68	2.39
tblVehicleEF	MDV	5.0280e-003	2.0260e-003
tblVehicleEF	MDV	6.9270e-003	0.04
tblVehicleEF	MDV	0.65	0.60
tblVehicleEF	MDV	1.42	2.19
tblVehicleEF	MDV	356.48	301.56
tblVehicleEF	MDV	77.10	60.81
tblVehicleEF	MDV	0.06	0.04
tblVehicleEF	MDV	0.11	0.18
tblVehicleEF	MDV	1.2140e-003	9.4300e-004
tblVehicleEF	MDV	1.7640e-003	1.1630e-003
tblVehicleEF	MDV	1.1180e-003	8.6900e-004
tblVehicleEF	MDV	1.6220e-003	1.0700e-003
tblVehicleEF	MDV	0.09	0.10
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.07	0.09
tblVehicleEF	MDV	0.01	7.9330e-003
tblVehicleEF	MDV	0.08	0.40
tblVehicleEF	MDV	0.09	0.19
tblVehicleEF	MDV	3.5650e-003	2.9800e-003
tblVehicleEF	MDV	7.9500e-004	6.0200e-004
tblVehicleEF	MDV	0.09	0.10
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.07	0.09
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.08	0.40
tblVehicleEF	MDV	0.10	0.20

tblVehicleEF	MDV	5.7580e-003	2.3440e-003
tblVehicleEF	MDV	5.7450e-003	0.03
tblVehicleEF	MDV	0.81	0.74
tblVehicleEF	MDV	1.20	1.82
tblVehicleEF	MDV	389.59	319.93
tblVehicleEF	MDV	77.10	60.13
tblVehicleEF	MDV	0.06	0.04
tblVehicleEF	MDV	0.10	0.17
tblVehicleEF	MDV	1.2140e-003	9.4300e-004
tblVehicleEF	MDV	1.7640e-003	1.1630e-003
tblVehicleEF	MDV	1.1180e-003	8.6900e-004
tblVehicleEF	MDV	1.6220e-003	1.0700e-003
tblVehicleEF	MDV	0.21	0.25
tblVehicleEF	MDV	0.18	0.15
tblVehicleEF	MDV	0.14	0.17
tblVehicleEF	MDV	0.01	9.0380e-003
tblVehicleEF	MDV	0.07	0.38
tblVehicleEF	MDV	0.08	0.15
tblVehicleEF	MDV	3.8980e-003	3.1620e-003
tblVehicleEF	MDV	7.9100e-004	5.9500e-004
tblVehicleEF	MDV	0.21	0.25
tblVehicleEF	MDV	0.18	0.15
tblVehicleEF	MDV	0.14	0.17
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.07	0.38
tblVehicleEF	MDV	0.08	0.17
tblVehicleEF	MDV	4.7340e-003	1.8840e-003

tblVehicleEF	MDV	8.0820e-003	0.05
tblVehicleEF	MDV	0.61	0.56
tblVehicleEF	MDV	1.71	2.67
tblVehicleEF	MDV	344.61	294.99
tblVehicleEF	MDV	77.10	61.66
tblVehicleEF	MDV	0.07	0.04
tblVehicleEF	MDV	0.12	0.20
tblVehicleEF	MDV	1.2140e-003	9.4300e-004
tblVehicleEF	MDV	1.7640e-003	1.1630e-003
tblVehicleEF	MDV	1.1180e-003	8.6900e-004
tblVehicleEF	MDV	1.6220e-003	1.0700e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.01	7.4860e-003
tblVehicleEF	MDV	0.09	0.47
tblVehicleEF	MDV	0.11	0.22
tblVehicleEF	MDV	3.4460e-003	2.9150e-003
tblVehicleEF	MDV	8.0000e-004	6.1000e-004
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.09	0.47
tblVehicleEF	MDV	0.12	0.24
tblVehicleEF	MH	7.3410e-003	4.8240e-003
tblVehicleEF	MH	0.02	0.02

tblVehicleEF	MH	0.38	0.29
tblVehicleEF	MH	3.51	1.48
tblVehicleEF	MH	1,179.93	1,305.16
tblVehicleEF	MH	55.83	14.11
tblVehicleEF	MH	0.86	1.24
tblVehicleEF	MH	0.60	0.23
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.5600e-004	1.9400e-004
tblVehicleEF	MH	3.2250e-003	3.3190e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8700e-004	1.7800e-004
tblVehicleEF	MH	0.58	0.44
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.18	0.14
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	4.3760e-003	0.30
tblVehicleEF	MH	0.21	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.1900e-004	1.4000e-004
tblVehicleEF	MH	0.58	0.44
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.18	0.14
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	4.3760e-003	0.30
tblVehicleEF	MH	0.23	0.07
tblVehicleEF	MH	7.5280e-003	4.9090e-003

tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.39	0.29
tblVehicleEF	MH	3.18	1.34
tblVehicleEF	MH	1,179.93	1,305.17
tblVehicleEF	MH	55.83	13.88
tblVehicleEF	MH	0.80	1.17
tblVehicleEF	MH	0.57	0.22
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.5600e-004	1.9400e-004
tblVehicleEF	MH	3.2250e-003	3.3190e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8700e-004	1.7800e-004
tblVehicleEF	MH	1.38	1.04
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.35	0.27
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	4.3440e-003	0.30
tblVehicleEF	MH	0.20	0.06
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.1400e-004	1.3700e-004
tblVehicleEF	MH	1.38	1.04
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.35	0.27
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	4.3440e-003	0.30
tblVehicleEF	MH	0.21	0.07

tblVehicleEF	MH	7.1340e-003	4.7280e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.37	0.28
tblVehicleEF	MH	3.87	1.63
tblVehicleEF	MH	1,179.93	1,305.15
tblVehicleEF	MH	55.83	14.37
tblVehicleEF	MH	0.88	1.26
tblVehicleEF	MH	0.64	0.25
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.5600e-004	1.9400e-004
tblVehicleEF	MH	3.2250e-003	3.3190e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8700e-004	1.7800e-004
tblVehicleEF	MH	0.21	0.16
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.10	0.08
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	4.7590e-003	0.33
tblVehicleEF	MH	0.22	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.2500e-004	1.4200e-004
tblVehicleEF	MH	0.21	0.16
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.10	0.08
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	4.7590e-003	0.33

tblVehicleEF	MH	0.25	0.08
tblVehicleEF	MHD	0.02	2.7870e-003
tblVehicleEF	MHD	2.5420e-003	9.5400e-004
tblVehicleEF	MHD	0.03	5.5970e-003
tblVehicleEF	MHD	0.25	0.44
tblVehicleEF	MHD	0.24	0.16
tblVehicleEF	MHD	2.11	0.52
tblVehicleEF	MHD	178.59	87.09
tblVehicleEF	MHD	1,169.14	980.97
tblVehicleEF	MHD	37.34	5.21
tblVehicleEF	MHD	0.48	0.47
tblVehicleEF	MHD	1.07	1.68
tblVehicleEF	MHD	13.97	1.92
tblVehicleEF	MHD	5.1000e-005	1.5300e-004
tblVehicleEF	MHD	3.0030e-003	8.3580e-003
tblVehicleEF	MHD	5.1500e-004	7.0000e-005
tblVehicleEF	MHD	4.9000e-005	1.4700e-004
tblVehicleEF	MHD	2.8670e-003	7.9910e-003
tblVehicleEF	MHD	4.7400e-004	6.4000e-005
tblVehicleEF	MHD	5.7900e-004	2.7400e-004
tblVehicleEF	MHD	0.02	9.6370e-003
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	2.8800e-004	1.3500e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	7.9930e-003	0.05
tblVehicleEF	MHD	0.14	0.03
tblVehicleEF	MHD	1.7120e-003	8.2500e-004

tblVehicleEF	MHD	0.01	9.3380e-003
tblVehicleEF	MHD	4.1000e-004	5.2000e-005
tblVehicleEF	MHD	5.7900e-004	2.7400e-004
tblVehicleEF	MHD	0.02	9.6370e-003
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	2.8800e-004	1.3500e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	7.9930e-003	0.05
tblVehicleEF	MHD	0.15	0.03
tblVehicleEF	MHD	0.02	2.6470e-003
tblVehicleEF	MHD	2.5620e-003	9.6800e-004
tblVehicleEF	MHD	0.03	5.3160e-003
tblVehicleEF	MHD	0.18	0.40
tblVehicleEF	MHD	0.24	0.16
tblVehicleEF	MHD	1.95	0.48
tblVehicleEF	MHD	189.29	86.23
tblVehicleEF	MHD	1,169.14	980.98
tblVehicleEF	MHD	37.34	5.15
tblVehicleEF	MHD	0.49	0.45
tblVehicleEF	MHD	1.02	1.60
tblVehicleEF	MHD	13.95	1.92
tblVehicleEF	MHD	4.3000e-005	1.3400e-004
tblVehicleEF	MHD	3.0030e-003	8.3580e-003
tblVehicleEF	MHD	5.1500e-004	7.0000e-005
tblVehicleEF	MHD	4.1000e-005	1.2800e-004
tblVehicleEF	MHD	2.8670e-003	7.9910e-003
tblVehicleEF	MHD	4.7400e-004	6.4000e-005

tblVehicleEF	MHD	1.3600e-003	6.4500e-004
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	5.7300e-004	2.7000e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	7.9130e-003	0.05
tblVehicleEF	MHD	0.13	0.02
tblVehicleEF	MHD	1.8130e-003	8.1600e-004
tblVehicleEF	MHD	0.01	9.3380e-003
tblVehicleEF	MHD	4.0800e-004	5.1000e-005
tblVehicleEF	MHD	1.3600e-003	6.4500e-004
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	5.7300e-004	2.7000e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	7.9130e-003	0.05
tblVehicleEF	MHD	0.14	0.03
tblVehicleEF	MHD	0.02	2.9150e-003
tblVehicleEF	MHD	2.5200e-003	9.3800e-004
tblVehicleEF	MHD	0.03	5.9220e-003
tblVehicleEF	MHD	0.33	0.49
tblVehicleEF	MHD	0.24	0.16
tblVehicleEF	MHD	2.30	0.57
tblVehicleEF	MHD	164.05	88.35
tblVehicleEF	MHD	1,169.14	980.97
tblVehicleEF	MHD	37.34	5.29
tblVehicleEF	MHD	0.45	0.50

tblVehicleEF	MHD	1.09	1.71
tblVehicleEF	MHD	13.99	1.93
tblVehicleEF	MHD	6.2000e-005	1.8000e-004
tblVehicleEF	MHD	3.0030e-003	8.3580e-003
tblVehicleEF	MHD	5.1500e-004	7.0000e-005
tblVehicleEF	MHD	5.9000e-005	1.7200e-004
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tblVehicleEF	MHD	4.7400e-004	6.4000e-005
tblVehicleEF	MHD	2.1100e-004	9.9000e-005
tblVehicleEF	MHD	0.02	9.5680e-003
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	1.3300e-004	6.2000e-005
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	8.9260e-003	0.05
tblVehicleEF	MHD	0.14	0.03
tblVehicleEF	MHD	1.5740e-003	8.3600e-004
tblVehicleEF	MHD	0.01	9.3380e-003
tblVehicleEF	MHD	4.1400e-004	5.2000e-005
tblVehicleEF	MHD	2.1100e-004	9.9000e-005
tblVehicleEF	MHD	0.02	9.5680e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	1.3300e-004	6.2000e-005
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	8.9260e-003	0.05
tblVehicleEF	MHD	0.16	0.03
tblVehicleEF	OBUS	0.01	7.3980e-003
tblVehicleEF	OBUS	3.6360e-003	1.9520e-003

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tblVehicleEF	OBUS	0.25	1.02
tblVehicleEF	OBUS	0.29	0.22
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tblVehicleEF	OBUS	214.91	154.29
tblVehicleEF	OBUS	1,286.45	1,161.63
tblVehicleEF	OBUS	57.44	10.33
tblVehicleEF	OBUS	0.52	0.76
tblVehicleEF	OBUS	0.89	1.38
tblVehicleEF	OBUS	4.72	1.36
tblVehicleEF	OBUS	4.8000e-005	2.6100e-004
tblVehicleEF	OBUS	2.9060e-003	9.3820e-003
tblVehicleEF	OBUS	8.6900e-004	1.2000e-004
tblVehicleEF	OBUS	4.6000e-005	2.5000e-004
tblVehicleEF	OBUS	2.7600e-003	8.9620e-003
tblVehicleEF	OBUS	7.9900e-004	1.1000e-004
tblVehicleEF	OBUS	1.5860e-003	1.4070e-003
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	5.4000e-004	4.8700e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.02	0.18
tblVehicleEF	OBUS	0.23	0.06
tblVehicleEF	OBUS	2.0610e-003	1.4610e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	6.3500e-004	1.0200e-004
tblVehicleEF	OBUS	1.5860e-003	1.4070e-003

tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.05	0.09
tblVehicleEF	OBUS	5.4000e-004	4.8700e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.02	0.18
tblVehicleEF	OBUS	0.25	0.07
tblVehicleEF	OBUS	0.01	7.5720e-003
tblVehicleEF	OBUS	3.6940e-003	1.9990e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.24	1.01
tblVehicleEF	OBUS	0.29	0.23
tblVehicleEF	OBUS	3.15	1.08
tblVehicleEF	OBUS	226.84	152.32
tblVehicleEF	OBUS	1,286.45	1,161.64
tblVehicleEF	OBUS	57.44	10.14
tblVehicleEF	OBUS	0.54	0.73
tblVehicleEF	OBUS	0.84	1.32
tblVehicleEF	OBUS	4.68	1.36
tblVehicleEF	OBUS	4.0000e-005	2.3200e-004
tblVehicleEF	OBUS	2.9060e-003	9.3820e-003
tblVehicleEF	OBUS	8.6900e-004	1.2000e-004
tblVehicleEF	OBUS	3.9000e-005	2.2200e-004
tblVehicleEF	OBUS	2.7600e-003	8.9620e-003
tblVehicleEF	OBUS	7.9900e-004	1.1000e-004
tblVehicleEF	OBUS	3.7340e-003	3.2900e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.08

tblVehicleEF	OBUS	1.0490e-003	9.2400e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.02	0.18
tblVehicleEF	OBUS	0.21	0.06
tblVehicleEF	OBUS	2.1740e-003	1.4420e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	6.3000e-004	1.0000e-004
tblVehicleEF	OBUS	3.7340e-003	3.2900e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.09
tblVehicleEF	OBUS	1.0490e-003	9.2400e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.02	0.18
tblVehicleEF	OBUS	0.23	0.06
tblVehicleEF	OBUS	0.01	7.1640e-003
tblVehicleEF	OBUS	3.5730e-003	1.9000e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.27	1.04
tblVehicleEF	OBUS	0.29	0.22
tblVehicleEF	OBUS	3.82	1.32
tblVehicleEF	OBUS	198.43	157.01
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tblVehicleEF	OBUS	4.76	1.37
tblVehicleEF	OBUS	5.8000e-005	3.0200e-004

tblVehicleEF	OBUS	2.9060e-003	9.3820e-003
tblVehicleEF	OBUS	8.6900e-004	1.2000e-004
tblVehicleEF	OBUS	5.6000e-005	2.8900e-004
tblVehicleEF	OBUS	2.7600e-003	8.9620e-003
tblVehicleEF	OBUS	7.9900e-004	1.1000e-004
tblVehicleEF	OBUS	5.8500e-004	5.3800e-004
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	2.9300e-004	2.7000e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.02	0.19
tblVehicleEF	OBUS	0.24	0.06
tblVehicleEF	OBUS	1.9030e-003	1.4870e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	6.4100e-004	1.0400e-004
tblVehicleEF	OBUS	5.8500e-004	5.3800e-004
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.05	0.08
tblVehicleEF	OBUS	2.9300e-004	2.7000e-004
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tblVehicleEF	OBUS	0.02	0.19
tblVehicleEF	OBUS	0.26	0.07
tblVehicleEF	SBUS	0.83	0.02
tblVehicleEF	SBUS	3.7660e-003	2.2730e-003
tblVehicleEF	SBUS	0.05	1.8370e-003
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tblVehicleEF	SBUS	0.30	0.18

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tblVehicleEF	SBUS	1,260.89	286.86
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tblVehicleEF	SBUS	16.95	1.63
tblVehicleEF	SBUS	8.8300e-004	1.1050e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	4.9470e-003	0.02
tblVehicleEF	SBUS	4.1200e-004	2.0000e-005
tblVehicleEF	SBUS	8.4400e-004	1.0570e-003
tblVehicleEF	SBUS	2.7610e-003	2.8110e-003
tblVehicleEF	SBUS	4.7220e-003	0.02
tblVehicleEF	SBUS	3.7900e-004	1.8000e-005
tblVehicleEF	SBUS	2.5770e-003	4.0500e-004
tblVehicleEF	SBUS	0.02	2.5150e-003
tblVehicleEF	SBUS	0.44	0.11
tblVehicleEF	SBUS	9.1100e-004	1.4300e-004
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	6.8250e-003	0.02
tblVehicleEF	SBUS	0.14	9.4880e-003
tblVehicleEF	SBUS	0.01	2.7180e-003
tblVehicleEF	SBUS	0.01	8.7550e-003
tblVehicleEF	SBUS	2.8300e-004	1.3000e-005
tblVehicleEF	SBUS	2.5770e-003	4.0500e-004
tblVehicleEF	SBUS	0.02	2.5150e-003

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tblVehicleEF	SBUS	9.1100e-004	1.4300e-004
tblVehicleEF	SBUS	0.07	0.05
tblVehicleEF	SBUS	6.8250e-003	0.02
tblVehicleEF	SBUS	0.16	0.01
tblVehicleEF	SBUS	0.83	0.02
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tblVehicleEF	SBUS	0.04	1.4840e-003
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tblVehicleEF	SBUS	1,328.83	288.46
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tblVehicleEF	SBUS	23.82	1.24
tblVehicleEF	SBUS	4.45	2.10
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tblVehicleEF	SBUS	16.93	1.63
tblVehicleEF	SBUS	7.4400e-004	9.4500e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	4.9470e-003	0.02
tblVehicleEF	SBUS	4.1200e-004	2.0000e-005
tblVehicleEF	SBUS	7.1200e-004	9.0400e-004
tblVehicleEF	SBUS	2.7610e-003	2.8110e-003
tblVehicleEF	SBUS	4.7220e-003	0.02
tblVehicleEF	SBUS	3.7900e-004	1.8000e-005
tblVehicleEF	SBUS	5.9940e-003	9.4400e-004
tblVehicleEF	SBUS	0.02	2.6190e-003

tblVehicleEF	SBUS	0.43	0.11
tblVehicleEF	SBUS	1.7120e-003	2.6900e-004
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	5.9680e-003	0.01
tblVehicleEF	SBUS	0.11	7.6520e-003
tblVehicleEF	SBUS	0.01	2.7340e-003
tblVehicleEF	SBUS	0.01	8.7550e-003
tblVehicleEF	SBUS	2.6900e-004	1.2000e-005
tblVehicleEF	SBUS	5.9940e-003	9.4400e-004
tblVehicleEF	SBUS	0.02	2.6190e-003
tblVehicleEF	SBUS	0.62	0.15
tblVehicleEF	SBUS	1.7120e-003	2.6900e-004
tblVehicleEF	SBUS	0.07	0.05
tblVehicleEF	SBUS	5.9680e-003	0.01
tblVehicleEF	SBUS	0.13	8.3780e-003
tblVehicleEF	SBUS	0.83	0.02
tblVehicleEF	SBUS	3.7250e-003	2.2540e-003
tblVehicleEF	SBUS	0.06	2.1570e-003
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tblVehicleEF	SBUS	1,105.32	919.77
tblVehicleEF	SBUS	23.82	1.48
tblVehicleEF	SBUS	4.13	2.13
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tblVehicleEF	SBUS	16.96	1.63

tblVehicleEF	SBUS	1.0740e-003	1.3270e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	4.9470e-003	0.02
tblVehicleEF	SBUS	4.1200e-004	2.0000e-005
tblVehicleEF	SBUS	1.0270e-003	1.2700e-003
tblVehicleEF	SBUS	2.7610e-003	2.8110e-003
tblVehicleEF	SBUS	4.7220e-003	0.02
tblVehicleEF	SBUS	3.7900e-004	1.8000e-005
tblVehicleEF	SBUS	9.8900e-004	1.5500e-004
tblVehicleEF	SBUS	0.02	2.5120e-003
tblVehicleEF	SBUS	0.44	0.11
tblVehicleEF	SBUS	5.0800e-004	8.0000e-005
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	8.5910e-003	0.02
tblVehicleEF	SBUS	0.17	0.01
tblVehicleEF	SBUS	0.01	2.6980e-003
tblVehicleEF	SBUS	0.01	8.7550e-003
tblVehicleEF	SBUS	2.9700e-004	1.5000e-005
tblVehicleEF	SBUS	9.8900e-004	1.5500e-004
tblVehicleEF	SBUS	0.02	2.5120e-003
tblVehicleEF	SBUS	0.63	0.15
tblVehicleEF	SBUS	5.0800e-004	8.0000e-005
tblVehicleEF	SBUS	0.07	0.05
tblVehicleEF	SBUS	8.5910e-003	0.02
tblVehicleEF	SBUS	0.18	0.01
tblVehicleEF	UBUS	0.72	1.89
tblVehicleEF	UBUS	0.06	0.05

tblVehicleEF	UBUS	3.92	13.88
tblVehicleEF	UBUS	8.69	3.39
tblVehicleEF	UBUS	1,790.75	1,467.43
tblVehicleEF	UBUS	146.64	32.98
tblVehicleEF	UBUS	2.28	0.32
tblVehicleEF	UBUS	11.97	0.35
tblVehicleEF	UBUS	0.49	0.11
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.04	2.6450e-003
tblVehicleEF	UBUS	1.4640e-003	4.4000e-004
tblVehicleEF	UBUS	0.21	0.05
tblVehicleEF	UBUS	3.0000e-003	3.7370e-003
tblVehicleEF	UBUS	0.04	2.4940e-003
tblVehicleEF	UBUS	1.3470e-003	4.0500e-004
tblVehicleEF	UBUS	6.0860e-003	2.8280e-003
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	2.7610e-003	1.2900e-003
tblVehicleEF	UBUS	0.14	0.03
tblVehicleEF	UBUS	0.01	0.14
tblVehicleEF	UBUS	0.82	0.19
tblVehicleEF	UBUS	0.01	7.4950e-003
tblVehicleEF	UBUS	1.6270e-003	3.2600e-004
tblVehicleEF	UBUS	6.0860e-003	2.8280e-003
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	2.7610e-003	1.2900e-003
tblVehicleEF	UBUS	0.87	1.93
tblVehicleEF	UBUS	0.01	0.14

tblVehicleEF	UBUS	0.89	0.21
tblVehicleEF	UBUS	0.72	1.89
tblVehicleEF	UBUS	0.05	0.04
tblVehicleEF	UBUS	3.93	13.88
tblVehicleEF	UBUS	7.04	2.75
tblVehicleEF	UBUS	1,790.75	1,467.44
tblVehicleEF	UBUS	146.64	31.90
tblVehicleEF	UBUS	2.16	0.31
tblVehicleEF	UBUS	11.88	0.33
tblVehicleEF	UBUS	0.49	0.11
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.04	2.6450e-003
tblVehicleEF	UBUS	1.4640e-003	4.4000e-004
tblVehicleEF	UBUS	0.21	0.05
tblVehicleEF	UBUS	3.0000e-003	3.7370e-003
tblVehicleEF	UBUS	0.04	2.4940e-003
tblVehicleEF	UBUS	1.3470e-003	4.0500e-004
tblVehicleEF	UBUS	0.01	6.8100e-003
tblVehicleEF	UBUS	0.08	0.03
tblVehicleEF	UBUS	5.3930e-003	2.7060e-003
tblVehicleEF	UBUS	0.14	0.03
tblVehicleEF	UBUS	0.01	0.13
tblVehicleEF	UBUS	0.72	0.17
tblVehicleEF	UBUS	0.01	7.4950e-003
tblVehicleEF	UBUS	1.5980e-003	3.1600e-004
tblVehicleEF	UBUS	0.01	6.8100e-003
tblVehicleEF	UBUS	0.08	0.03

tblVehicleEF	UBUS	5.3930e-003	2.7060e-003
tblVehicleEF	UBUS	0.87	1.93
tblVehicleEF	UBUS	0.01	0.13
tblVehicleEF	UBUS	0.79	0.18
tblVehicleEF	UBUS	0.72	1.89
tblVehicleEF	UBUS	0.07	0.05
tblVehicleEF	UBUS	3.90	13.87
tblVehicleEF	UBUS	10.53	4.09
tblVehicleEF	UBUS	1,790.75	1,467.42
tblVehicleEF	UBUS	146.64	34.18
tblVehicleEF	UBUS	2.34	0.33
tblVehicleEF	UBUS	12.07	0.38
tblVehicleEF	UBUS	0.49	0.11
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.04	2.6450e-003
tblVehicleEF	UBUS	1.4640e-003	4.4000e-004
tblVehicleEF	UBUS	0.21	0.05
tblVehicleEF	UBUS	3.0000e-003	3.7370e-003
tblVehicleEF	UBUS	0.04	2.4940e-003
tblVehicleEF	UBUS	1.3470e-003	4.0500e-004
tblVehicleEF	UBUS	2.3130e-003	9.8700e-004
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	1.4800e-003	6.1500e-004
tblVehicleEF	UBUS	0.14	0.03
tblVehicleEF	UBUS	0.01	0.17
tblVehicleEF	UBUS	0.92	0.21
tblVehicleEF	UBUS	0.01	7.4950e-003

tblVehicleEF	UBUS	1.6590e-003	3.3800e-004
tblVehicleEF	UBUS	2.3130e-003	9.8700e-004
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	1.4800e-003	6.1500e-004
tblVehicleEF	UBUS	0.87	1.93
tblVehicleEF	UBUS	0.01	0.17
tblVehicleEF	UBUS	1.00	0.23
tblVehicleTrips	CC_TL	7.30	7.89
tblVehicleTrips	CC_TL	7.30	7.88
tblVehicleTrips	CC_TL	7.30	7.89
tblVehicleTrips	CC_TTP	48.00	100.00
tblVehicleTrips	CC_TTP	28.00	100.00
tblVehicleTrips	CC_TTP	64.40	100.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00

tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	7.50	0.00
tblVehicleTrips	HO_TL	7.50	0.00
tblVehicleTrips	HO_TTP	35.70	0.00
tblVehicleTrips	HO_TTP	35.70	0.00
tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HS_TTP	17.40	0.00
tblVehicleTrips	HS_TTP	17.40	0.00
tblVehicleTrips	HW_TL	10.80	11.67
tblVehicleTrips	HW_TL	10.80	11.67
tblVehicleTrips	HW_TTP	46.90	100.00
tblVehicleTrips	HW_TTP	46.90	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	79.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	6.39	7.02
tblVehicleTrips	ST_TR	2.46	2.36

tblVehicleTrips	ST_TR	2.49	2.20
tblVehicleTrips	ST_TR	9.91	10.08
tblVehicleTrips	ST_TR	42.04	23.63
tblVehicleTrips	SU_TR	5.86	6.44
tblVehicleTrips	SU_TR	1.05	1.01
tblVehicleTrips	SU_TR	0.73	0.64
tblVehicleTrips	SU_TR	8.62	8.65
tblVehicleTrips	SU_TR	20.43	11.48
tblVehicleTrips	WD_TR	6.65	7.31
tblVehicleTrips	WD_TR	11.03	10.59
tblVehicleTrips	WD_TR	6.83	6.02
tblVehicleTrips	WD_TR	9.52	11.40
tblVehicleTrips	WD_TR	44.32	24.91
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction

'- Construction modeled separately

Unmitigated Construction

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	20.6645	0.7701	12.6789	4.6600e-003		0.1197	0.1197		0.1197	0.1197	0.0000	746.4057	746.4057	0.0333	0.0133	751.2055
Energy	0.2528	2.1781	1.0502	0.0138		0.1747	0.1747		0.1747	0.1747	0.0000	5,336.1696	5,336.1696	0.3701	0.1125	5,378.9560
Mobile	9.0026	20.3755	95.0013	0.3397	43.1155	0.2407	43.3562	11.5551	0.2261	11.7812	0.0000	31,534.3573	31,534.3573	1.0118	0.0000	31,559.6517
Waste						0.0000	0.0000		0.0000	0.0000	253.1033	0.0000	253.1033	14.9580	0.0000	627.0528
Water						0.0000	0.0000		0.0000	0.0000	114.9683	249.3999	364.3682	3.3290	0.2559	523.8466
Total	**29.9198**	**23.3237**	**108.7304**	**0.3582**	**43.1155**	**0.5351**	**43.6506**	**11.5551**	**0.5205**	**12.0756**	**368.0716**	**37,866.3326**	**38,234.4042**	**19.7022**	**0.3817**	**38,840.7126**

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	20.1478	0.7673	12.3939	4.6400e-003		0.1180	0.1180		0.1180	0.1180	0.0000	745.8273	745.8273	0.0327	0.0133	750.6108
Energy	0.2101	1.8099	0.8729	0.0115		0.1451	0.1451		0.1451	0.1451	0.0000	4,222.9059	4,222.9059	0.2836	0.0885	4,256.3791
Mobile	9.0026	20.3755	95.0013	0.3397	43.1155	0.2407	43.3562	11.5551	0.2261	11.7812	0.0000	31,534.3573	31,534.3573	1.0118	0.0000	31,559.6517
Waste						0.0000	0.0000		0.0000	0.0000	253.1033	0.0000	253.1033	14.9580	0.0000	627.0528
Water						0.0000	0.0000		0.0000	0.0000	91.9746	199.5200	291.4946	2.6632	0.2047	419.0773
Total	**29.3604**	**22.9527**	**108.2682**	**0.3558**	**43.1155**	**0.5039**	**43.6194**	**11.5551**	**0.4893**	**12.0444**	**345.0780**	**36,702.6105**	**37,047.6885**	**18.9492**	**0.3066**	**37,612.7717**

	ROG	NOx	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	**1.87**	**1.59**	**0.43**	**0.66**	**0.00**	**5.84**	**0.07**	**0.00**	**6.01**	**0.26**	**6.25**	**3.07**	**3.10**	**3.82**	**19.69**	**3.16**

3.0 Construction Detail

'- Construction Modeled Separately

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 6,062,040; Residential Outdoor: 2,020,680; Non-Residential Indoor: 1,864,275; Non-Residential Outdoor: 621,425; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	215.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.0026	20.3755	95.0013	0.3397	43.1155	0.2407	43.3562	11.5551	0.2261	11.7812	0.0000	31,534.35 73	31,534.35 73	1.0118	0.0000	31,559.65 17
Unmitigated	9.0026	20.3755	95.0013	0.3397	43.1155	0.2407	43.3562	11.5551	0.2261	11.7812	0.0000	31,534.35 73	31,534.35 73	1.0118	0.0000	31,559.65 17

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	211.99	203.58	186.76	880,094	880,094
General Office Building	2,702.57	602.27	257.75	5,896,899	5,896,899
Industrial Park	3,724.27	1,361.03	395.94	8,350,225	8,350,225
Single Family Housing	18,775.80	16,601.76	14246.55	75,689,521	75,689,521
Strip Mall	9,191.79	8,719.47	4236.12	24,171,457	24,171,457
Total	34,606.42	27,488.11	19,323.12	114,988,196	114,988,196

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
Apartments Mid Rise	11.67	0.00	0.00	100.00	0.00	0.00	100	0	0
General Office Building	0.00	7.89	0.00	0.00	100.00	0.00	100	0	0
Industrial Park	0.00	7.88	0.00	0.00	100.00	0.00	100	0	0
Single Family Housing	11.67	0.00	0.00	100.00	0.00	0.00	100	0	0
Strip Mall	0.00	7.89	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
General Office Building	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
Industrial Park	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
Single Family Housing	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
Strip Mall	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable 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	2,144.087 6	2,144.087 6	0.2437	0.0504	2,165.207 4
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,834.394 6	2,834.394 6	0.3222	0.0667	2,862.314 1
NaturalGas Mitigated	0.2101	1.8099	0.8729	0.0115		0.1451	0.1451		0.1451	0.1451	0.0000	2,078.818 3	2,078.818 3	0.0398	0.0381	2,091.171 7
NaturalGas Unmitigated	0.2528	2.1781	1.0502	0.0138		0.1747	0.1747		0.1747	0.1747	0.0000	2,501.775 1	2,501.775 1	0.0480	0.0459	2,516.641 9

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					
Apartments Mid Rise	335995	1.8100e-003	0.0155	6.5900e-003	1.0000e-004		1.2500e-003	1.2500e-003		1.2500e-003	1.2500e-003	0.0000	17.9300	17.9300	3.4000e-004	3.3000e-004	18.0365
General Office Building	2.35294e+006	0.0127	0.1153	0.0969	6.9000e-004		8.7700e-003	8.7700e-003		8.7700e-003	8.7700e-003	0.0000	125.5621	125.5621	2.4100e-003	2.3000e-003	126.3082
Industrial Park	723821	3.9000e-003	0.0355	0.0298	2.1000e-004		2.7000e-003	2.7000e-003		2.7000e-003	2.7000e-003	0.0000	38.6258	38.6258	7.4000e-004	7.1000e-004	38.8554
Single Family Housing	4.04761e+007	0.2183	1.8651	0.7937	0.0119		0.1508	0.1508		0.1508	0.1508	0.0000	2,159.9612	2,159.9612	0.0414	0.0396	2,172.7968
Strip Mall	2.99259e+006	0.0161	0.1467	0.1232	8.8000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	159.6960	159.6960	3.0600e-003	2.9300e-003	160.6450
Total		**0.2528**	**2.1781**	**1.0502**	**0.0138**		**0.1747**	**0.1747**		**0.1747**	**0.1747**	**0.0000**	**2,501.7751**	**2,501.7751**	**0.0480**	**0.0459**	**2,516.6419**

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					
Apartments Mid Rise	290389	1.5700e-003	0.0134	5.6900e-003	9.0000e-005		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003	0.0000	15.4963	15.4963	3.0000e-004	2.8000e-004	15.5884
General Office Building	1.89665e+006	0.0102	0.0930	0.0781	5.6000e-004		7.0700e-003	7.0700e-003		7.0700e-003	7.0700e-003	0.0000	101.2123	101.2123	1.9400e-003	1.8600e-003	101.8137
Industrial Park	613701	3.3100e-003	0.0301	0.0253	1.8000e-004		2.2900e-003	2.2900e-003		2.2900e-003	2.2900e-003	0.0000	32.7494	32.7494	6.3000e-004	6.0000e-004	32.9440
Single Family Housing	3.36073e+007	0.1812	1.5486	0.6590	9.8800e-003		0.1252	0.1252		0.1252	0.1252	0.0000	1,793.4120	1,793.4120	0.0344	0.0329	1,804.0694
Strip Mall	2.54758e+006	0.0137	0.1249	0.1049	7.5000e-004		9.4900e-003	9.4900e-003		9.4900e-003	9.4900e-003	0.0000	135.9484	135.9484	2.6100e-003	2.4900e-003	136.7562
Total		**0.2101**	**1.8099**	**0.8729**	**0.0115**		**0.1451**	**0.1451**		**0.1451**	**0.1451**	**0.0000**	**2,078.8183**	**2,078.8183**	**0.0399**	**0.0381**	**2,091.1717**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	128969	14.9243	1.7000e-003	3.5000e-004	15.0713
General Office Building	2.12582e+006	246.0005	0.0280	5.7900e-003	248.4236
Industrial Park	5.15335e+006	596.3487	0.0678	0.0140	602.2229
Single Family Housing	1.43141e+007	1,656.4377	0.1883	0.0390	1,672.7540
Strip Mall	2.77119e+006	320.6835	0.0365	7.5400e-003	323.8423
Total		**2,834.3946**	**0.3222**	**0.0667**	**2,862.3141**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	97647.6	11.2998	1.2800e-003	2.7000e-004	11.4111
General Office Building	1.58528e+006	183.4496	0.0209	4.3100e-003	185.2566
Industrial Park	3.843e+006	444.7143	0.0506	0.0105	449.0949
Single Family Housing	1.0927e+007	1,264.4827	0.1437	0.0297	1,276.9382
Strip Mall	2.07518e+006	240.1411	0.0273	5.6500e-003	242.5066
Total		**2,144.0876**	**0.2437**	**0.0504**	**2,165.2074**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	20.1478	0.7673	12.3939	4.6400e-003		0.1180	0.1180		0.1180	0.1180	0.0000	745.8273	745.8273	0.0327	0.0133	750.6108
Unmitigated	20.6645	0.7701	12.6789	4.6600e-003		0.1197	0.1197		0.1197	0.1197	0.0000	746.4057	746.4057	0.0333	0.0133	751.2055

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	3.6739					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	16.5455					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0734	0.6269	0.2668	4.0000e-003		0.0507	0.0507		0.0507	0.0507	0.0000	726.0556	726.0556	0.0139	0.0133	730.3702
Landscaping	0.3718	0.1432	12.4121	6.6000e-004		0.0691	0.0691		0.0691	0.0691	0.0000	20.3501	20.3501	0.0194	0.0000	20.8353
Total	**20.6645**	**0.7701**	**12.6789**	**4.6600e-003**		**0.1197**	**0.1197**		**0.1197**	**0.1197**	**0.0000**	**746.4057**	**746.4057**	**0.0333**	**0.0133**	**751.2055**

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	3.1698					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	16.5455					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0734	0.6269	0.2668	4.0000e-003		0.0507	0.0507		0.0507	0.0507	0.0000	726.0556	726.0556	0.0139	0.0133	730.3702
Landscaping	0.3592	0.1404	12.1272	6.4000e-004		0.0673	0.0673		0.0673	0.0673	0.0000	19.7717	19.7717	0.0188	0.0000	20.2406
Total	**20.1478**	**0.7673**	**12.3939**	**4.6400e-003**		**0.1180**	**0.1180**		**0.1180**	**0.1180**	**0.0000**	**745.8273**	**745.8273**	**0.0327**	**0.0133**	**750.6108**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	291.4946	2.6632	0.2047	419.0773
Unmitigated	364.3682	3.3290	0.2559	523.8466

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.88947 / 1.19119	2.3341	0.0194	1.4900e-003	3.2635
General Office Building	45.3577 / 27.7999	55.7085	0.4652	0.0358	78.0167
Industrial Park	143.063 / 0	140.1966	1.4633	0.1122	210.2092
Single Family Housing	107.309 / 67.6511	132.5589	1.1007	0.0848	185.3440
Strip Mall	27.3328 / 16.7523	33.5702	0.2804	0.0216	47.0133
Total		**364.3683**	**3.3290**	**0.2559**	**523.8466**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.51157 / 0.952948	1.8673	0.0155	1.1900e-003	2.6108
General Office Building	36.2861 / 22.2399	44.5668	0.3722	0.0287	62.4133
Industrial Park	114.45 / 0	112.1573	1.1707	0.0897	168.1674
Single Family Housing	85.8469 / 54.1209	106.0472	0.8806	0.0678	148.2752
Strip Mall	21.8662 / 13.4019	26.8562	0.2243	0.0173	37.6106
Total		**291.4946**	**2.6632**	**0.2047**	**419.0773**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	253.1033	14.9580	0.0000	627.0528
Unmitigated	253.1033	14.9580	0.0000	627.0528

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	5.6	1.1368	0.0672	0.0000	2.8163
General Office Building	90.19	18.3078	1.0820	0.0000	45.3567
Industrial Park	291.51	59.1739	3.4971	0.0000	146.6008
Single Family Housing	712.15	144.5600	8.5433	0.0000	358.1413
Strip Mall	147.42	29.9249	1.7685	0.0000	74.1377
Total		**253.1033**	**14.9580**	**0.0000**	**627.0528**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	5.6	1.1368	0.0672	0.0000	2.8163
General Office Building	90.19	18.3078	1.0820	0.0000	45.3567
Industrial Park	291.51	59.1739	3.4971	0.0000	146.6008
Single Family Housing	712.15	144.5600	8.5433	0.0000	358.1413
Strip Mall	147.42	29.9249	1.7685	0.0000	74.1377
Total		**253.1033**	**14.9580**	**0.0000**	**627.0528**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Winton - Operational - Mitigated - GHG Reductions (20 & 21b)

Merced County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	255.20	1000sqft	16.01	255,200.00	0
Industrial Park	618.65	1000sqft	50.95	618,650.00	0
Apartments Mid Rise	29.00	Dwelling Unit	2.34	29,000.00	83
Single Family Housing	1,647.00	Dwelling Unit	488.00	2,964,600.00	4710
Strip Mall	369.00	1000sqft	35.00	369,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	49
Climate Zone	3			**Operational Year**	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	255.12	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - Construction modeled separately

Off-road Equipment - See assumptions

Vehicle Trips - See Assumptions

Road Dust - see assumptions

Energy Use - See Assumptions

Water And Wastewater - See Assumptions

Solid Waste - See Assumptions

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation - See Assumptions

Waste Mitigation -

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	150	50
tblEnergyUse	T24E	700.71	651.66
tblEnergyUse	T24E	2.62	1.83
tblEnergyUse	T24E	2.62	1.83
tblEnergyUse	T24E	995.93	926.22
tblEnergyUse	T24E	2.14	1.50
tblEnergyUse	T24NG	8,454.86	7,863.02
tblEnergyUse	T24NG	12.77	8.94
tblEnergyUse	T24NG	12.77	0.89

tblEnergyUse	T24NG	22,422.24	20,852.68
tblEnergyUse	T24NG	8.62	6.03
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tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
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tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDA	0.54	0.62
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tblFleetMix	LDT1	0.03	0.05
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tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LDT2	0.16	0.15
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tblFleetMix	LHD1	8.2190e-003	0.02
tblFleetMix	LHD1	8.2190e-003	0.02

tblFleetMix	LHD2	3.1010e-003	4.6720e-003
tblFleetMix	LHD2	3.1010e-003	4.6720e-003
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tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
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tblFleetMix	MDV	0.08	0.10
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MDV	0.08	0.10
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tblFleetMix	MHD	0.01	0.02
tblFleetMix	MHD	0.01	0.02
tblFleetMix	MHD	0.01	0.02
tblFleetMix	OBUS	2.3180e-003	1.6850e-003
tblFleetMix	OBUS	2.3180e-003	1.6850e-003

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tblFleetMix	UBUS	1.4170e-003	1.4970e-003
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tblFleetMix	UBUS	1.4170e-003	1.4970e-003
tblFleetMix	UBUS	1.4170e-003	1.4970e-003
tblLandUse	LotAcreage	5.86	16.01
tblLandUse	LotAcreage	14.20	50.95
tblLandUse	LotAcreage	0.76	2.34
tblLandUse	LotAcreage	534.74	488.00
tblLandUse	LotAcreage	8.47	35.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	255.12
tblSolidWaste	SolidWasteGenerationRate	13.34	5.60
tblSolidWaste	SolidWasteGenerationRate	237.34	90.19
tblSolidWaste	SolidWasteGenerationRate	767.13	291.51
tblSolidWaste	SolidWasteGenerationRate	1,695.60	712.15
tblSolidWaste	SolidWasteGenerationRate	387.45	147.42
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tblVehicleEF	HHD	7.0000e-006	0.00
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tblVehicleEF	LDA	0.02	0.09
tblVehicleEF	LDA	1.7830e-003	1.9810e-003
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tblVehicleEF	LDA	6.2060e-003	4.0610e-003
tblVehicleEF	LDA	0.02	0.17
tblVehicleEF	LDA	0.02	0.10
tblVehicleEF	LDA	1.9530e-003	1.0380e-003
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tblVehicleEF	LDA	1.5960e-003	8.2700e-004
tblVehicleEF	LDA	1.5000e-003	0.03
tblVehicleEF	LDA	0.28	0.39
tblVehicleEF	LDA	0.57	1.87
tblVehicleEF	LDA	172.00	193.41
tblVehicleEF	LDA	38.17	40.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.13
tblVehicleEF	LDA	9.4600e-004	8.0800e-004
tblVehicleEF	LDA	1.4000e-003	1.0410e-003
tblVehicleEF	LDA	8.7000e-004	7.4400e-004
tblVehicleEF	LDA	1.2880e-003	9.5800e-004
tblVehicleEF	LDA	6.6130e-003	0.01
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	5.6950e-003	9.6750e-003
tblVehicleEF	LDA	4.0170e-003	2.6330e-003
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.02	0.11
tblVehicleEF	LDA	1.7200e-003	1.9130e-003
tblVehicleEF	LDA	3.9100e-004	3.9600e-004
tblVehicleEF	LDA	6.6130e-003	0.01
tblVehicleEF	LDA	0.05	0.06

tblVehicleEF	LDA	5.6950e-003	9.6750e-003
tblVehicleEF	LDA	5.8370e-003	3.8230e-003
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.02	0.12
tblVehicleEF	LDT1	3.0530e-003	1.4300e-003
tblVehicleEF	LDT1	3.6040e-003	0.03
tblVehicleEF	LDT1	0.45	0.51
tblVehicleEF	LDT1	0.90	1.66
tblVehicleEF	LDT1	229.29	239.80
tblVehicleEF	LDT1	50.14	48.10
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.04	0.14
tblVehicleEF	LDT1	1.1950e-003	9.2400e-004
tblVehicleEF	LDT1	1.7740e-003	1.1910e-003
tblVehicleEF	LDT1	1.0990e-003	8.4900e-004
tblVehicleEF	LDT1	1.6310e-003	1.0950e-003
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.04	0.05
tblVehicleEF	LDT1	7.5680e-003	5.2150e-003
tblVehicleEF	LDT1	0.06	0.34
tblVehicleEF	LDT1	0.05	0.13
tblVehicleEF	LDT1	2.2960e-003	2.3730e-003
tblVehicleEF	LDT1	5.1600e-004	4.7600e-004
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.04	0.05

tblVehicleEF	LDT1	0.01	7.6240e-003
tblVehicleEF	LDT1	0.06	0.34
tblVehicleEF	LDT1	0.05	0.14
tblVehicleEF	LDT1	3.4960e-003	1.6560e-003
tblVehicleEF	LDT1	2.9720e-003	0.03
tblVehicleEF	LDT1	0.56	0.63
tblVehicleEF	LDT1	0.74	1.39
tblVehicleEF	LDT1	251.22	259.39
tblVehicleEF	LDT1	50.14	47.61
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.04	0.13
tblVehicleEF	LDT1	1.1950e-003	9.2400e-004
tblVehicleEF	LDT1	1.7740e-003	1.1910e-003
tblVehicleEF	LDT1	1.0990e-003	8.4900e-004
tblVehicleEF	LDT1	1.6310e-003	1.0950e-003
tblVehicleEF	LDT1	0.15	0.16
tblVehicleEF	LDT1	0.14	0.11
tblVehicleEF	LDT1	0.09	0.10
tblVehicleEF	LDT1	8.6640e-003	5.9660e-003
tblVehicleEF	LDT1	0.06	0.33
tblVehicleEF	LDT1	0.04	0.11
tblVehicleEF	LDT1	2.5170e-003	2.5670e-003
tblVehicleEF	LDT1	5.1300e-004	4.7100e-004
tblVehicleEF	LDT1	0.15	0.16
tblVehicleEF	LDT1	0.14	0.11
tblVehicleEF	LDT1	0.09	0.10
tblVehicleEF	LDT1	0.01	8.7210e-003

tblVehicleEF	LDT1	0.06	0.33
tblVehicleEF	LDT1	0.04	0.12
tblVehicleEF	LDT1	2.8750e-003	1.3290e-003
tblVehicleEF	LDT1	4.2230e-003	0.03
tblVehicleEF	LDT1	0.42	0.47
tblVehicleEF	LDT1	1.09	2.02
tblVehicleEF	LDT1	221.43	232.79
tblVehicleEF	LDT1	50.14	48.72
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.05	0.16
tblVehicleEF	LDT1	1.1950e-003	9.2400e-004
tblVehicleEF	LDT1	1.7740e-003	1.1910e-003
tblVehicleEF	LDT1	1.0990e-003	8.4900e-004
tblVehicleEF	LDT1	1.6310e-003	1.0950e-003
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	7.1250e-003	4.9120e-003
tblVehicleEF	LDT1	0.07	0.41
tblVehicleEF	LDT1	0.06	0.15
tblVehicleEF	LDT1	2.2170e-003	2.3040e-003
tblVehicleEF	LDT1	5.1900e-004	4.8200e-004
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.01	7.1800e-003
tblVehicleEF	LDT1	0.07	0.41

tblVehicleEF	LDT1	0.06	0.16
tblVehicleEF	LDT2	2.7600e-003	1.5570e-003
tblVehicleEF	LDT2	2.4660e-003	0.03
tblVehicleEF	LDT2	0.47	0.55
tblVehicleEF	LDT2	0.75	2.06
tblVehicleEF	LDT2	260.94	242.47
tblVehicleEF	LDT2	56.29	48.96
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.04	0.15
tblVehicleEF	LDT2	1.1130e-003	9.1200e-004
tblVehicleEF	LDT2	1.6240e-003	1.0960e-003
tblVehicleEF	LDT2	1.0240e-003	8.4000e-004
tblVehicleEF	LDT2	1.4940e-003	1.0080e-003
tblVehicleEF	LDT2	0.04	0.07
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	6.8660e-003	5.6520e-003
tblVehicleEF	LDT2	0.04	0.31
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	2.6120e-003	2.3990e-003
tblVehicleEF	LDT2	5.7500e-004	4.8500e-004
tblVehicleEF	LDT2	0.04	0.07
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.01	8.2050e-003
tblVehicleEF	LDT2	0.04	0.31
tblVehicleEF	LDT2	0.04	0.16

tblVehicleEF	LDT2	3.1650e-003	1.8040e-003
tblVehicleEF	LDT2	2.0740e-003	0.03
tblVehicleEF	LDT2	0.58	0.68
tblVehicleEF	LDT2	0.64	1.71
tblVehicleEF	LDT2	285.89	260.42
tblVehicleEF	LDT2	56.29	48.35
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.04	0.14
tblVehicleEF	LDT2	1.1130e-003	9.1200e-004
tblVehicleEF	LDT2	1.6240e-003	1.0960e-003
tblVehicleEF	LDT2	1.0240e-003	8.4000e-004
tblVehicleEF	LDT2	1.4940e-003	1.0080e-003
tblVehicleEF	LDT2	0.09	0.16
tblVehicleEF	LDT2	0.08	0.10
tblVehicleEF	LDT2	0.06	0.11
tblVehicleEF	LDT2	7.8700e-003	6.4460e-003
tblVehicleEF	LDT2	0.04	0.30
tblVehicleEF	LDT2	0.03	0.12
tblVehicleEF	LDT2	2.8630e-003	2.5760e-003
tblVehicleEF	LDT2	5.7300e-004	4.7800e-004
tblVehicleEF	LDT2	0.09	0.16
tblVehicleEF	LDT2	0.08	0.10
tblVehicleEF	LDT2	0.06	0.11
tblVehicleEF	LDT2	0.01	9.3670e-003
tblVehicleEF	LDT2	0.04	0.30
tblVehicleEF	LDT2	0.03	0.13
tblVehicleEF	LDT2	2.5960e-003	1.4450e-003

tblVehicleEF	LDT2	2.8470e-003	0.04
tblVehicleEF	LDT2	0.43	0.51
tblVehicleEF	LDT2	0.88	2.51
tblVehicleEF	LDT2	251.99	236.05
tblVehicleEF	LDT2	56.29	49.74
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.04	0.16
tblVehicleEF	LDT2	1.1130e-003	9.1200e-004
tblVehicleEF	LDT2	1.6240e-003	1.0960e-003
tblVehicleEF	LDT2	1.0240e-003	8.4000e-004
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tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	6.4620e-003	5.3310e-003
tblVehicleEF	LDT2	0.05	0.38
tblVehicleEF	LDT2	0.04	0.17
tblVehicleEF	LDT2	2.5220e-003	2.3350e-003
tblVehicleEF	LDT2	5.7700e-004	4.9200e-004
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	9.4150e-003	7.7360e-003
tblVehicleEF	LDT2	0.05	0.38
tblVehicleEF	LDT2	0.04	0.19
tblVehicleEF	LHD1	3.3030e-003	3.4300e-003
tblVehicleEF	LHD1	7.2730e-003	5.1120e-003

tblVehicleEF	LHD1	7.8940e-003	7.1800e-003
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tblVehicleEF	LHD1	0.61	0.50
tblVehicleEF	LHD1	1.27	0.75
tblVehicleEF	LHD1	9.21	8.46
tblVehicleEF	LHD1	631.32	664.88
tblVehicleEF	LHD1	22.81	8.35
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.90	0.51
tblVehicleEF	LHD1	0.53	0.18
tblVehicleEF	LHD1	8.9900e-004	1.0850e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	9.8490e-003
tblVehicleEF	LHD1	4.8600e-004	1.6500e-004
tblVehicleEF	LHD1	8.6000e-004	1.0380e-003
tblVehicleEF	LHD1	2.6370e-003	2.5240e-003
tblVehicleEF	LHD1	0.01	9.3840e-003
tblVehicleEF	LHD1	4.4700e-004	1.5200e-004
tblVehicleEF	LHD1	2.0260e-003	1.7370e-003
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	9.4300e-004	7.9800e-004
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.11	0.03
tblVehicleEF	LHD1	9.1000e-005	8.2000e-005
tblVehicleEF	LHD1	6.1560e-003	6.4670e-003

tblVehicleEF	LHD1	2.5100e-004	8.3000e-005
tblVehicleEF	LHD1	2.0260e-003	1.7370e-003
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.4300e-004	7.9800e-004
tblVehicleEF	LHD1	0.12	0.10
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.12	0.04
tblVehicleEF	LHD1	3.3030e-003	3.4400e-003
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tblVehicleEF	LHD1	0.13	0.16
tblVehicleEF	LHD1	0.61	0.50
tblVehicleEF	LHD1	1.18	0.70
tblVehicleEF	LHD1	9.21	8.46
tblVehicleEF	LHD1	631.32	664.88
tblVehicleEF	LHD1	22.81	8.27
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.85	0.48
tblVehicleEF	LHD1	0.50	0.17
tblVehicleEF	LHD1	8.9900e-004	1.0850e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	9.8490e-003
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tblVehicleEF	LHD1	8.6000e-004	1.0380e-003
tblVehicleEF	LHD1	2.6370e-003	2.5240e-003
tblVehicleEF	LHD1	0.01	9.3840e-003

tblVehicleEF	LHD1	4.4700e-004	1.5200e-004
tblVehicleEF	LHD1	4.7920e-003	4.1240e-003
tblVehicleEF	LHD1	0.07	0.06
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	1.8750e-003	1.6030e-003
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.10	0.03
tblVehicleEF	LHD1	9.1000e-005	8.2000e-005
tblVehicleEF	LHD1	6.1560e-003	6.4670e-003
tblVehicleEF	LHD1	2.5000e-004	8.2000e-005
tblVehicleEF	LHD1	4.7920e-003	4.1240e-003
tblVehicleEF	LHD1	0.07	0.06
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.8750e-003	1.6030e-003
tblVehicleEF	LHD1	0.12	0.10
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.11	0.04
tblVehicleEF	LHD1	3.3030e-003	3.4200e-003
tblVehicleEF	LHD1	7.1910e-003	5.0610e-003
tblVehicleEF	LHD1	8.3800e-003	7.5890e-003
tblVehicleEF	LHD1	0.13	0.16
tblVehicleEF	LHD1	0.60	0.49
tblVehicleEF	LHD1	1.37	0.81
tblVehicleEF	LHD1	9.21	8.46
tblVehicleEF	LHD1	631.32	664.87
tblVehicleEF	LHD1	22.81	8.46

tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.92	0.52
tblVehicleEF	LHD1	0.57	0.19
tblVehicleEF	LHD1	8.9900e-004	1.0850e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	9.8490e-003
tblVehicleEF	LHD1	4.8600e-004	1.6500e-004
tblVehicleEF	LHD1	8.6000e-004	1.0380e-003
tblVehicleEF	LHD1	2.6370e-003	2.5240e-003
tblVehicleEF	LHD1	0.01	9.3840e-003
tblVehicleEF	LHD1	4.4700e-004	1.5200e-004
tblVehicleEF	LHD1	7.3900e-004	6.2300e-004
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	4.3600e-004	3.6500e-004
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.15	0.29
tblVehicleEF	LHD1	0.11	0.04
tblVehicleEF	LHD1	9.1000e-005	8.2000e-005
tblVehicleEF	LHD1	6.1560e-003	6.4670e-003
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tblVehicleEF	LHD1	7.3900e-004	6.2300e-004
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	4.3600e-004	3.6500e-004
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.15	0.29

tblVehicleEF	LHD1	0.12	0.04
tblVehicleEF	LHD2	2.2910e-003	2.1400e-003
tblVehicleEF	LHD2	5.0030e-003	5.6170e-003
tblVehicleEF	LHD2	2.5640e-003	3.8460e-003
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	0.45	0.56
tblVehicleEF	LHD2	0.82	0.40
tblVehicleEF	LHD2	13.62	13.53
tblVehicleEF	LHD2	666.89	658.82
tblVehicleEF	LHD2	20.75	5.33
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.20	0.62
tblVehicleEF	LHD2	0.23	0.11
tblVehicleEF	LHD2	9.8100e-004	1.5680e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.7600e-003	0.02
tblVehicleEF	LHD2	3.5900e-004	8.3000e-005
tblVehicleEF	LHD2	9.3900e-004	1.5000e-003
tblVehicleEF	LHD2	2.7150e-003	2.7420e-003
tblVehicleEF	LHD2	8.3590e-003	0.02
tblVehicleEF	LHD2	3.3000e-004	7.7000e-005
tblVehicleEF	LHD2	6.8500e-004	8.3500e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.4000e-004	4.1400e-004
tblVehicleEF	LHD2	0.09	0.11
tblVehicleEF	LHD2	0.03	0.11

tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	1.3200e-004	1.2900e-004
tblVehicleEF	LHD2	6.4770e-003	6.3420e-003
tblVehicleEF	LHD2	2.2100e-004	5.3000e-005
tblVehicleEF	LHD2	6.8500e-004	8.3500e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.4000e-004	4.1400e-004
tblVehicleEF	LHD2	0.10	0.12
tblVehicleEF	LHD2	0.03	0.11
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	2.2910e-003	2.1460e-003
tblVehicleEF	LHD2	5.0270e-003	5.6390e-003
tblVehicleEF	LHD2	2.5020e-003	3.6460e-003
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	0.45	0.56
tblVehicleEF	LHD2	0.77	0.37
tblVehicleEF	LHD2	13.62	13.53
tblVehicleEF	LHD2	666.89	658.82
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tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.19	0.59
tblVehicleEF	LHD2	0.22	0.10
tblVehicleEF	LHD2	9.8100e-004	1.5680e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.7600e-003	0.02
tblVehicleEF	LHD2	3.5900e-004	8.3000e-005

tblVehicleEF	LHD2	9.3900e-004	1.5000e-003
tblVehicleEF	LHD2	2.7150e-003	2.7420e-003
tblVehicleEF	LHD2	8.3590e-003	0.02
tblVehicleEF	LHD2	3.3000e-004	7.7000e-005
tblVehicleEF	LHD2	1.6100e-003	1.9570e-003
tblVehicleEF	LHD2	0.02	0.03
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tblVehicleEF	LHD2	6.7700e-004	8.1500e-004
tblVehicleEF	LHD2	0.09	0.11
tblVehicleEF	LHD2	0.03	0.11
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tblVehicleEF	LHD2	6.4770e-003	6.3420e-003
tblVehicleEF	LHD2	2.2000e-004	5.2000e-005
tblVehicleEF	LHD2	1.6100e-003	1.9570e-003
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	6.7700e-004	8.1500e-004
tblVehicleEF	LHD2	0.10	0.12
tblVehicleEF	LHD2	0.03	0.11
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	2.2910e-003	2.1340e-003
tblVehicleEF	LHD2	4.9760e-003	5.5940e-003
tblVehicleEF	LHD2	2.6330e-003	4.0640e-003
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	0.45	0.56
tblVehicleEF	LHD2	0.89	0.43

tblVehicleEF	LHD2	13.62	13.53
tblVehicleEF	LHD2	666.89	658.81
tblVehicleEF	LHD2	20.75	5.38
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.21	0.63
tblVehicleEF	LHD2	0.23	0.11
tblVehicleEF	LHD2	9.8100e-004	1.5680e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.7600e-003	0.02
tblVehicleEF	LHD2	3.5900e-004	8.3000e-005
tblVehicleEF	LHD2	9.3900e-004	1.5000e-003
tblVehicleEF	LHD2	2.7150e-003	2.7420e-003
tblVehicleEF	LHD2	8.3590e-003	0.02
tblVehicleEF	LHD2	3.3000e-004	7.7000e-005
tblVehicleEF	LHD2	2.4900e-004	3.0800e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	1.5600e-004	1.9300e-004
tblVehicleEF	LHD2	0.09	0.11
tblVehicleEF	LHD2	0.03	0.13
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	1.3200e-004	1.2900e-004
tblVehicleEF	LHD2	6.4770e-003	6.3420e-003
tblVehicleEF	LHD2	2.2200e-004	5.3000e-005
tblVehicleEF	LHD2	2.4900e-004	3.0800e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02

tblVehicleEF	LHD2	1.5600e-004	1.9300e-004
tblVehicleEF	LHD2	0.10	0.12
tblVehicleEF	LHD2	0.03	0.13
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	MCY	0.50	0.35
tblVehicleEF	MCY	0.15	0.24
tblVehicleEF	MCY	18.22	18.20
tblVehicleEF	MCY	10.30	9.15
tblVehicleEF	MCY	179.23	217.41
tblVehicleEF	MCY	43.15	59.15
tblVehicleEF	MCY	1.15	1.15
tblVehicleEF	MCY	0.31	0.27
tblVehicleEF	MCY	2.3650e-003	2.3630e-003
tblVehicleEF	MCY	3.1050e-003	2.7270e-003
tblVehicleEF	MCY	2.2060e-003	2.2040e-003
tblVehicleEF	MCY	2.9020e-003	2.5480e-003
tblVehicleEF	MCY	1.51	1.51
tblVehicleEF	MCY	0.83	0.83
tblVehicleEF	MCY	0.70	0.70
tblVehicleEF	MCY	2.33	2.33
tblVehicleEF	MCY	0.26	1.39
tblVehicleEF	MCY	2.09	1.85
tblVehicleEF	MCY	2.1600e-003	2.1510e-003
tblVehicleEF	MCY	6.6100e-004	5.8500e-004
tblVehicleEF	MCY	1.51	1.51
tblVehicleEF	MCY	0.83	0.83
tblVehicleEF	MCY	0.70	0.70

tblVehicleEF	MCY	2.91	2.91
tblVehicleEF	MCY	0.26	1.39
tblVehicleEF	MCY	2.27	2.01
tblVehicleEF	MCY	0.49	0.34
tblVehicleEF	MCY	0.13	0.21
tblVehicleEF	MCY	18.42	18.40
tblVehicleEF	MCY	9.08	8.04
tblVehicleEF	MCY	179.23	217.59
tblVehicleEF	MCY	43.15	56.49
tblVehicleEF	MCY	1.00	1.00
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.3650e-003	2.3630e-003
tblVehicleEF	MCY	3.1050e-003	2.7270e-003
tblVehicleEF	MCY	2.2060e-003	2.2040e-003
tblVehicleEF	MCY	2.9020e-003	2.5480e-003
tblVehicleEF	MCY	3.87	3.87
tblVehicleEF	MCY	1.34	1.35
tblVehicleEF	MCY	1.80	1.80
tblVehicleEF	MCY	2.29	2.29
tblVehicleEF	MCY	0.25	1.35
tblVehicleEF	MCY	1.78	1.58
tblVehicleEF	MCY	2.1620e-003	2.1530e-003
tblVehicleEF	MCY	6.3200e-004	5.5900e-004
tblVehicleEF	MCY	3.87	3.87
tblVehicleEF	MCY	1.34	1.35
tblVehicleEF	MCY	1.80	1.80
tblVehicleEF	MCY	2.86	2.86

tblVehicleEF	MCY	0.25	1.35
tblVehicleEF	MCY	1.94	1.72
tblVehicleEF	MCY	0.51	0.36
tblVehicleEF	MCY	0.18	0.29
tblVehicleEF	MCY	19.46	19.44
tblVehicleEF	MCY	12.03	10.74
tblVehicleEF	MCY	179.23	219.68
tblVehicleEF	MCY	43.15	62.83
tblVehicleEF	MCY	1.25	1.25
tblVehicleEF	MCY	0.34	0.29
tblVehicleEF	MCY	2.3650e-003	2.3630e-003
tblVehicleEF	MCY	3.1050e-003	2.7270e-003
tblVehicleEF	MCY	2.2060e-003	2.2040e-003
tblVehicleEF	MCY	2.9020e-003	2.5480e-003
tblVehicleEF	MCY	0.42	0.42
tblVehicleEF	MCY	0.82	0.82
tblVehicleEF	MCY	0.20	0.20
tblVehicleEF	MCY	2.41	2.41
tblVehicleEF	MCY	0.31	1.67
tblVehicleEF	MCY	2.46	2.19
tblVehicleEF	MCY	2.1830e-003	2.1740e-003
tblVehicleEF	MCY	7.0100e-004	6.2200e-004
tblVehicleEF	MCY	0.42	0.42
tblVehicleEF	MCY	0.82	0.82
tblVehicleEF	MCY	0.20	0.20
tblVehicleEF	MCY	3.02	3.01
tblVehicleEF	MCY	0.31	1.67

tblVehicleEF	MCY	2.68	2.39
tblVehicleEF	MDV	5.0280e-003	2.0260e-003
tblVehicleEF	MDV	6.9270e-003	0.04
tblVehicleEF	MDV	0.65	0.60
tblVehicleEF	MDV	1.42	2.19
tblVehicleEF	MDV	356.48	301.56
tblVehicleEF	MDV	77.10	60.81
tblVehicleEF	MDV	0.06	0.04
tblVehicleEF	MDV	0.11	0.18
tblVehicleEF	MDV	1.2140e-003	9.4300e-004
tblVehicleEF	MDV	1.7640e-003	1.1630e-003
tblVehicleEF	MDV	1.1180e-003	8.6900e-004
tblVehicleEF	MDV	1.6220e-003	1.0700e-003
tblVehicleEF	MDV	0.09	0.10
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.07	0.09
tblVehicleEF	MDV	0.01	7.9330e-003
tblVehicleEF	MDV	0.08	0.40
tblVehicleEF	MDV	0.09	0.19
tblVehicleEF	MDV	3.5650e-003	2.9800e-003
tblVehicleEF	MDV	7.9500e-004	6.0200e-004
tblVehicleEF	MDV	0.09	0.10
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.07	0.09
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.08	0.40
tblVehicleEF	MDV	0.10	0.20

tblVehicleEF	MDV	5.7580e-003	2.3440e-003
tblVehicleEF	MDV	5.7450e-003	0.03
tblVehicleEF	MDV	0.81	0.74
tblVehicleEF	MDV	1.20	1.82
tblVehicleEF	MDV	389.59	319.93
tblVehicleEF	MDV	77.10	60.13
tblVehicleEF	MDV	0.06	0.04
tblVehicleEF	MDV	0.10	0.17
tblVehicleEF	MDV	1.2140e-003	9.4300e-004
tblVehicleEF	MDV	1.7640e-003	1.1630e-003
tblVehicleEF	MDV	1.1180e-003	8.6900e-004
tblVehicleEF	MDV	1.6220e-003	1.0700e-003
tblVehicleEF	MDV	0.21	0.25
tblVehicleEF	MDV	0.18	0.15
tblVehicleEF	MDV	0.14	0.17
tblVehicleEF	MDV	0.01	9.0380e-003
tblVehicleEF	MDV	0.07	0.38
tblVehicleEF	MDV	0.08	0.15
tblVehicleEF	MDV	3.8980e-003	3.1620e-003
tblVehicleEF	MDV	7.9100e-004	5.9500e-004
tblVehicleEF	MDV	0.21	0.25
tblVehicleEF	MDV	0.18	0.15
tblVehicleEF	MDV	0.14	0.17
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.07	0.38
tblVehicleEF	MDV	0.08	0.17
tblVehicleEF	MDV	4.7340e-003	1.8840e-003

tblVehicleEF	MDV	8.0820e-003	0.05
tblVehicleEF	MDV	0.61	0.56
tblVehicleEF	MDV	1.71	2.67
tblVehicleEF	MDV	344.61	294.99
tblVehicleEF	MDV	77.10	61.66
tblVehicleEF	MDV	0.07	0.04
tblVehicleEF	MDV	0.12	0.20
tblVehicleEF	MDV	1.2140e-003	9.4300e-004
tblVehicleEF	MDV	1.7640e-003	1.1630e-003
tblVehicleEF	MDV	1.1180e-003	8.6900e-004
tblVehicleEF	MDV	1.6220e-003	1.0700e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.01	7.4860e-003
tblVehicleEF	MDV	0.09	0.47
tblVehicleEF	MDV	0.11	0.22
tblVehicleEF	MDV	3.4460e-003	2.9150e-003
tblVehicleEF	MDV	8.0000e-004	6.1000e-004
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.09	0.47
tblVehicleEF	MDV	0.12	0.24
tblVehicleEF	MH	7.3410e-003	4.8240e-003
tblVehicleEF	MH	0.02	0.02

tblVehicleEF	MH	0.38	0.29
tblVehicleEF	MH	3.51	1.48
tblVehicleEF	MH	1,179.93	1,305.16
tblVehicleEF	MH	55.83	14.11
tblVehicleEF	MH	0.86	1.24
tblVehicleEF	MH	0.60	0.23
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.5600e-004	1.9400e-004
tblVehicleEF	MH	3.2250e-003	3.3190e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8700e-004	1.7800e-004
tblVehicleEF	MH	0.58	0.44
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.18	0.14
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	4.3760e-003	0.30
tblVehicleEF	MH	0.21	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.1900e-004	1.4000e-004
tblVehicleEF	MH	0.58	0.44
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.18	0.14
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	4.3760e-003	0.30
tblVehicleEF	MH	0.23	0.07
tblVehicleEF	MH	7.5280e-003	4.9090e-003

tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.39	0.29
tblVehicleEF	MH	3.18	1.34
tblVehicleEF	MH	1,179.93	1,305.17
tblVehicleEF	MH	55.83	13.88
tblVehicleEF	MH	0.80	1.17
tblVehicleEF	MH	0.57	0.22
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.5600e-004	1.9400e-004
tblVehicleEF	MH	3.2250e-003	3.3190e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8700e-004	1.7800e-004
tblVehicleEF	MH	1.38	1.04
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.35	0.27
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	4.3440e-003	0.30
tblVehicleEF	MH	0.20	0.06
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.1400e-004	1.3700e-004
tblVehicleEF	MH	1.38	1.04
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.35	0.27
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	4.3440e-003	0.30
tblVehicleEF	MH	0.21	0.07

tblVehicleEF	MH	7.1340e-003	4.7280e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.37	0.28
tblVehicleEF	MH	3.87	1.63
tblVehicleEF	MH	1,179.93	1,305.15
tblVehicleEF	MH	55.83	14.37
tblVehicleEF	MH	0.88	1.26
tblVehicleEF	MH	0.64	0.25
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.5600e-004	1.9400e-004
tblVehicleEF	MH	3.2250e-003	3.3190e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8700e-004	1.7800e-004
tblVehicleEF	MH	0.21	0.16
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.10	0.08
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	4.7590e-003	0.33
tblVehicleEF	MH	0.22	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.2500e-004	1.4200e-004
tblVehicleEF	MH	0.21	0.16
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.10	0.08
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	4.7590e-003	0.33

tblVehicleEF	MH	0.25	0.08
tblVehicleEF	MHD	0.02	2.7870e-003
tblVehicleEF	MHD	2.5420e-003	9.5400e-004
tblVehicleEF	MHD	0.03	5.5970e-003
tblVehicleEF	MHD	0.25	0.44
tblVehicleEF	MHD	0.24	0.16
tblVehicleEF	MHD	2.11	0.52
tblVehicleEF	MHD	178.59	87.09
tblVehicleEF	MHD	1,169.14	980.97
tblVehicleEF	MHD	37.34	5.21
tblVehicleEF	MHD	0.48	0.47
tblVehicleEF	MHD	1.07	1.68
tblVehicleEF	MHD	13.97	1.92
tblVehicleEF	MHD	5.1000e-005	1.5300e-004
tblVehicleEF	MHD	3.0030e-003	8.3580e-003
tblVehicleEF	MHD	5.1500e-004	7.0000e-005
tblVehicleEF	MHD	4.9000e-005	1.4700e-004
tblVehicleEF	MHD	2.8670e-003	7.9910e-003
tblVehicleEF	MHD	4.7400e-004	6.4000e-005
tblVehicleEF	MHD	5.7900e-004	2.7400e-004
tblVehicleEF	MHD	0.02	9.6370e-003
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	2.8800e-004	1.3500e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	7.9930e-003	0.05
tblVehicleEF	MHD	0.14	0.03
tblVehicleEF	MHD	1.7120e-003	8.2500e-004

tblVehicleEF	MHD	0.01	9.3380e-003
tblVehicleEF	MHD	4.1000e-004	5.2000e-005
tblVehicleEF	MHD	5.7900e-004	2.7400e-004
tblVehicleEF	MHD	0.02	9.6370e-003
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	2.8800e-004	1.3500e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	7.9930e-003	0.05
tblVehicleEF	MHD	0.15	0.03
tblVehicleEF	MHD	0.02	2.6470e-003
tblVehicleEF	MHD	2.5620e-003	9.6800e-004
tblVehicleEF	MHD	0.03	5.3160e-003
tblVehicleEF	MHD	0.18	0.40
tblVehicleEF	MHD	0.24	0.16
tblVehicleEF	MHD	1.95	0.48
tblVehicleEF	MHD	189.29	86.23
tblVehicleEF	MHD	1,169.14	980.98
tblVehicleEF	MHD	37.34	5.15
tblVehicleEF	MHD	0.49	0.45
tblVehicleEF	MHD	1.02	1.60
tblVehicleEF	MHD	13.95	1.92
tblVehicleEF	MHD	4.3000e-005	1.3400e-004
tblVehicleEF	MHD	3.0030e-003	8.3580e-003
tblVehicleEF	MHD	5.1500e-004	7.0000e-005
tblVehicleEF	MHD	4.1000e-005	1.2800e-004
tblVehicleEF	MHD	2.8670e-003	7.9910e-003
tblVehicleEF	MHD	4.7400e-004	6.4000e-005

tblVehicleEF	MHD	1.3600e-003	6.4500e-004
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	5.7300e-004	2.7000e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	7.9130e-003	0.05
tblVehicleEF	MHD	0.13	0.02
tblVehicleEF	MHD	1.8130e-003	8.1600e-004
tblVehicleEF	MHD	0.01	9.3380e-003
tblVehicleEF	MHD	4.0800e-004	5.1000e-005
tblVehicleEF	MHD	1.3600e-003	6.4500e-004
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	5.7300e-004	2.7000e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	7.9130e-003	0.05
tblVehicleEF	MHD	0.14	0.03
tblVehicleEF	MHD	0.02	2.9150e-003
tblVehicleEF	MHD	2.5200e-003	9.3800e-004
tblVehicleEF	MHD	0.03	5.9220e-003
tblVehicleEF	MHD	0.33	0.49
tblVehicleEF	MHD	0.24	0.16
tblVehicleEF	MHD	2.30	0.57
tblVehicleEF	MHD	164.05	88.35
tblVehicleEF	MHD	1,169.14	980.97
tblVehicleEF	MHD	37.34	5.29
tblVehicleEF	MHD	0.45	0.50

tblVehicleEF	MHD	1.09	1.71
tblVehicleEF	MHD	13.99	1.93
tblVehicleEF	MHD	6.2000e-005	1.8000e-004
tblVehicleEF	MHD	3.0030e-003	8.3580e-003
tblVehicleEF	MHD	5.1500e-004	7.0000e-005
tblVehicleEF	MHD	5.9000e-005	1.7200e-004
tblVehicleEF	MHD	2.8670e-003	7.9910e-003
tblVehicleEF	MHD	4.7400e-004	6.4000e-005
tblVehicleEF	MHD	2.1100e-004	9.9000e-005
tblVehicleEF	MHD	0.02	9.5680e-003
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	1.3300e-004	6.2000e-005
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	8.9260e-003	0.05
tblVehicleEF	MHD	0.14	0.03
tblVehicleEF	MHD	1.5740e-003	8.3600e-004
tblVehicleEF	MHD	0.01	9.3380e-003
tblVehicleEF	MHD	4.1400e-004	5.2000e-005
tblVehicleEF	MHD	2.1100e-004	9.9000e-005
tblVehicleEF	MHD	0.02	9.5680e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	1.3300e-004	6.2000e-005
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	8.9260e-003	0.05
tblVehicleEF	MHD	0.16	0.03
tblVehicleEF	OBUS	0.01	7.3980e-003
tblVehicleEF	OBUS	3.6360e-003	1.9520e-003

tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.25	1.02
tblVehicleEF	OBUS	0.29	0.22
tblVehicleEF	OBUS	3.47	1.20
tblVehicleEF	OBUS	214.91	154.29
tblVehicleEF	OBUS	1,286.45	1,161.63
tblVehicleEF	OBUS	57.44	10.33
tblVehicleEF	OBUS	0.52	0.76
tblVehicleEF	OBUS	0.89	1.38
tblVehicleEF	OBUS	4.72	1.36
tblVehicleEF	OBUS	4.8000e-005	2.6100e-004
tblVehicleEF	OBUS	2.9060e-003	9.3820e-003
tblVehicleEF	OBUS	8.6900e-004	1.2000e-004
tblVehicleEF	OBUS	4.6000e-005	2.5000e-004
tblVehicleEF	OBUS	2.7600e-003	8.9620e-003
tblVehicleEF	OBUS	7.9900e-004	1.1000e-004
tblVehicleEF	OBUS	1.5860e-003	1.4070e-003
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	5.4000e-004	4.8700e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.02	0.18
tblVehicleEF	OBUS	0.23	0.06
tblVehicleEF	OBUS	2.0610e-003	1.4610e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	6.3500e-004	1.0200e-004
tblVehicleEF	OBUS	1.5860e-003	1.4070e-003

tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.05	0.09
tblVehicleEF	OBUS	5.4000e-004	4.8700e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.02	0.18
tblVehicleEF	OBUS	0.25	0.07
tblVehicleEF	OBUS	0.01	7.5720e-003
tblVehicleEF	OBUS	3.6940e-003	1.9990e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.24	1.01
tblVehicleEF	OBUS	0.29	0.23
tblVehicleEF	OBUS	3.15	1.08
tblVehicleEF	OBUS	226.84	152.32
tblVehicleEF	OBUS	1,286.45	1,161.64
tblVehicleEF	OBUS	57.44	10.14
tblVehicleEF	OBUS	0.54	0.73
tblVehicleEF	OBUS	0.84	1.32
tblVehicleEF	OBUS	4.68	1.36
tblVehicleEF	OBUS	4.0000e-005	2.3200e-004
tblVehicleEF	OBUS	2.9060e-003	9.3820e-003
tblVehicleEF	OBUS	8.6900e-004	1.2000e-004
tblVehicleEF	OBUS	3.9000e-005	2.2200e-004
tblVehicleEF	OBUS	2.7600e-003	8.9620e-003
tblVehicleEF	OBUS	7.9900e-004	1.1000e-004
tblVehicleEF	OBUS	3.7340e-003	3.2900e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.08

tblVehicleEF	OBUS	1.0490e-003	9.2400e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.02	0.18
tblVehicleEF	OBUS	0.21	0.06
tblVehicleEF	OBUS	2.1740e-003	1.4420e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	6.3000e-004	1.0000e-004
tblVehicleEF	OBUS	3.7340e-003	3.2900e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.09
tblVehicleEF	OBUS	1.0490e-003	9.2400e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.02	0.18
tblVehicleEF	OBUS	0.23	0.06
tblVehicleEF	OBUS	0.01	7.1640e-003
tblVehicleEF	OBUS	3.5730e-003	1.9000e-003
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.27	1.04
tblVehicleEF	OBUS	0.29	0.22
tblVehicleEF	OBUS	3.82	1.32
tblVehicleEF	OBUS	198.43	157.01
tblVehicleEF	OBUS	1,286.45	1,161.62
tblVehicleEF	OBUS	57.44	10.53
tblVehicleEF	OBUS	0.50	0.82
tblVehicleEF	OBUS	0.91	1.41
tblVehicleEF	OBUS	4.76	1.37
tblVehicleEF	OBUS	5.8000e-005	3.0200e-004

tblVehicleEF	OBUS	2.9060e-003	9.3820e-003
tblVehicleEF	OBUS	8.6900e-004	1.2000e-004
tblVehicleEF	OBUS	5.6000e-005	2.8900e-004
tblVehicleEF	OBUS	2.7600e-003	8.9620e-003
tblVehicleEF	OBUS	7.9900e-004	1.1000e-004
tblVehicleEF	OBUS	5.8500e-004	5.3800e-004
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	2.9300e-004	2.7000e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.02	0.19
tblVehicleEF	OBUS	0.24	0.06
tblVehicleEF	OBUS	1.9030e-003	1.4870e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	6.4100e-004	1.0400e-004
tblVehicleEF	OBUS	5.8500e-004	5.3800e-004
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.05	0.08
tblVehicleEF	OBUS	2.9300e-004	2.7000e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.02	0.19
tblVehicleEF	OBUS	0.26	0.07
tblVehicleEF	SBUS	0.83	0.02
tblVehicleEF	SBUS	3.7660e-003	2.2730e-003
tblVehicleEF	SBUS	0.05	1.8370e-003
tblVehicleEF	SBUS	3.63	1.45
tblVehicleEF	SBUS	0.30	0.18

tblVehicleEF	SBUS	2.57	0.23
tblVehicleEF	SBUS	1,260.89	286.86
tblVehicleEF	SBUS	1,105.32	919.78
tblVehicleEF	SBUS	23.82	1.36
tblVehicleEF	SBUS	4.32	2.11
tblVehicleEF	SBUS	1.35	2.19
tblVehicleEF	SBUS	16.95	1.63
tblVehicleEF	SBUS	8.8300e-004	1.1050e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	4.9470e-003	0.02
tblVehicleEF	SBUS	4.1200e-004	2.0000e-005
tblVehicleEF	SBUS	8.4400e-004	1.0570e-003
tblVehicleEF	SBUS	2.7610e-003	2.8110e-003
tblVehicleEF	SBUS	4.7220e-003	0.02
tblVehicleEF	SBUS	3.7900e-004	1.8000e-005
tblVehicleEF	SBUS	2.5770e-003	4.0500e-004
tblVehicleEF	SBUS	0.02	2.5150e-003
tblVehicleEF	SBUS	0.44	0.11
tblVehicleEF	SBUS	9.1100e-004	1.4300e-004
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	6.8250e-003	0.02
tblVehicleEF	SBUS	0.14	9.4880e-003
tblVehicleEF	SBUS	0.01	2.7180e-003
tblVehicleEF	SBUS	0.01	8.7550e-003
tblVehicleEF	SBUS	2.8300e-004	1.3000e-005
tblVehicleEF	SBUS	2.5770e-003	4.0500e-004
tblVehicleEF	SBUS	0.02	2.5150e-003

tblVehicleEF	SBUS	0.63	0.15
tblVehicleEF	SBUS	9.1100e-004	1.4300e-004
tblVehicleEF	SBUS	0.07	0.05
tblVehicleEF	SBUS	6.8250e-003	0.02
tblVehicleEF	SBUS	0.16	0.01
tblVehicleEF	SBUS	0.83	0.02
tblVehicleEF	SBUS	3.8090e-003	2.2920e-003
tblVehicleEF	SBUS	0.04	1.4840e-003
tblVehicleEF	SBUS	3.55	1.42
tblVehicleEF	SBUS	0.31	0.19
tblVehicleEF	SBUS	1.74	0.15
tblVehicleEF	SBUS	1,328.83	288.46
tblVehicleEF	SBUS	1,105.32	919.78
tblVehicleEF	SBUS	23.82	1.24
tblVehicleEF	SBUS	4.45	2.10
tblVehicleEF	SBUS	1.29	2.09
tblVehicleEF	SBUS	16.93	1.63
tblVehicleEF	SBUS	7.4400e-004	9.4500e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	4.9470e-003	0.02
tblVehicleEF	SBUS	4.1200e-004	2.0000e-005
tblVehicleEF	SBUS	7.1200e-004	9.0400e-004
tblVehicleEF	SBUS	2.7610e-003	2.8110e-003
tblVehicleEF	SBUS	4.7220e-003	0.02
tblVehicleEF	SBUS	3.7900e-004	1.8000e-005
tblVehicleEF	SBUS	5.9940e-003	9.4400e-004
tblVehicleEF	SBUS	0.02	2.6190e-003

tblVehicleEF	SBUS	0.43	0.11
tblVehicleEF	SBUS	1.7120e-003	2.6900e-004
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	5.9680e-003	0.01
tblVehicleEF	SBUS	0.11	7.6520e-003
tblVehicleEF	SBUS	0.01	2.7340e-003
tblVehicleEF	SBUS	0.01	8.7550e-003
tblVehicleEF	SBUS	2.6900e-004	1.2000e-005
tblVehicleEF	SBUS	5.9940e-003	9.4400e-004
tblVehicleEF	SBUS	0.02	2.6190e-003
tblVehicleEF	SBUS	0.62	0.15
tblVehicleEF	SBUS	1.7120e-003	2.6900e-004
tblVehicleEF	SBUS	0.07	0.05
tblVehicleEF	SBUS	5.9680e-003	0.01
tblVehicleEF	SBUS	0.13	8.3780e-003
tblVehicleEF	SBUS	0.83	0.02
tblVehicleEF	SBUS	3.7250e-003	2.2540e-003
tblVehicleEF	SBUS	0.06	2.1570e-003
tblVehicleEF	SBUS	3.73	1.48
tblVehicleEF	SBUS	0.30	0.18
tblVehicleEF	SBUS	3.39	0.30
tblVehicleEF	SBUS	1,167.08	284.65
tblVehicleEF	SBUS	1,105.32	919.77
tblVehicleEF	SBUS	23.82	1.48
tblVehicleEF	SBUS	4.13	2.13
tblVehicleEF	SBUS	1.38	2.24
tblVehicleEF	SBUS	16.96	1.63

tblVehicleEF	SBUS	1.0740e-003	1.3270e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	4.9470e-003	0.02
tblVehicleEF	SBUS	4.1200e-004	2.0000e-005
tblVehicleEF	SBUS	1.0270e-003	1.2700e-003
tblVehicleEF	SBUS	2.7610e-003	2.8110e-003
tblVehicleEF	SBUS	4.7220e-003	0.02
tblVehicleEF	SBUS	3.7900e-004	1.8000e-005
tblVehicleEF	SBUS	9.8900e-004	1.5500e-004
tblVehicleEF	SBUS	0.02	2.5120e-003
tblVehicleEF	SBUS	0.44	0.11
tblVehicleEF	SBUS	5.0800e-004	8.0000e-005
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	8.5910e-003	0.02
tblVehicleEF	SBUS	0.17	0.01
tblVehicleEF	SBUS	0.01	2.6980e-003
tblVehicleEF	SBUS	0.01	8.7550e-003
tblVehicleEF	SBUS	2.9700e-004	1.5000e-005
tblVehicleEF	SBUS	9.8900e-004	1.5500e-004
tblVehicleEF	SBUS	0.02	2.5120e-003
tblVehicleEF	SBUS	0.63	0.15
tblVehicleEF	SBUS	5.0800e-004	8.0000e-005
tblVehicleEF	SBUS	0.07	0.05
tblVehicleEF	SBUS	8.5910e-003	0.02
tblVehicleEF	SBUS	0.18	0.01
tblVehicleEF	UBUS	0.72	1.89
tblVehicleEF	UBUS	0.06	0.05

tblVehicleEF	UBUS	3.92	13.88
tblVehicleEF	UBUS	8.69	3.39
tblVehicleEF	UBUS	1,790.75	1,467.43
tblVehicleEF	UBUS	146.64	32.98
tblVehicleEF	UBUS	2.28	0.32
tblVehicleEF	UBUS	11.97	0.35
tblVehicleEF	UBUS	0.49	0.11
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.04	2.6450e-003
tblVehicleEF	UBUS	1.4640e-003	4.4000e-004
tblVehicleEF	UBUS	0.21	0.05
tblVehicleEF	UBUS	3.0000e-003	3.7370e-003
tblVehicleEF	UBUS	0.04	2.4940e-003
tblVehicleEF	UBUS	1.3470e-003	4.0500e-004
tblVehicleEF	UBUS	6.0860e-003	2.8280e-003
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	2.7610e-003	1.2900e-003
tblVehicleEF	UBUS	0.14	0.03
tblVehicleEF	UBUS	0.01	0.14
tblVehicleEF	UBUS	0.82	0.19
tblVehicleEF	UBUS	0.01	7.4950e-003
tblVehicleEF	UBUS	1.6270e-003	3.2600e-004
tblVehicleEF	UBUS	6.0860e-003	2.8280e-003
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	2.7610e-003	1.2900e-003
tblVehicleEF	UBUS	0.87	1.93
tblVehicleEF	UBUS	0.01	0.14

tblVehicleEF	UBUS	0.89	0.21
tblVehicleEF	UBUS	0.72	1.89
tblVehicleEF	UBUS	0.05	0.04
tblVehicleEF	UBUS	3.93	13.88
tblVehicleEF	UBUS	7.04	2.75
tblVehicleEF	UBUS	1,790.75	1,467.44
tblVehicleEF	UBUS	146.64	31.90
tblVehicleEF	UBUS	2.16	0.31
tblVehicleEF	UBUS	11.88	0.33
tblVehicleEF	UBUS	0.49	0.11
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.04	2.6450e-003
tblVehicleEF	UBUS	1.4640e-003	4.4000e-004
tblVehicleEF	UBUS	0.21	0.05
tblVehicleEF	UBUS	3.0000e-003	3.7370e-003
tblVehicleEF	UBUS	0.04	2.4940e-003
tblVehicleEF	UBUS	1.3470e-003	4.0500e-004
tblVehicleEF	UBUS	0.01	6.8100e-003
tblVehicleEF	UBUS	0.08	0.03
tblVehicleEF	UBUS	5.3930e-003	2.7060e-003
tblVehicleEF	UBUS	0.14	0.03
tblVehicleEF	UBUS	0.01	0.13
tblVehicleEF	UBUS	0.72	0.17
tblVehicleEF	UBUS	0.01	7.4950e-003
tblVehicleEF	UBUS	1.5980e-003	3.1600e-004
tblVehicleEF	UBUS	0.01	6.8100e-003
tblVehicleEF	UBUS	0.08	0.03

tblVehicleEF	UBUS	5.3930e-003	2.7060e-003
tblVehicleEF	UBUS	0.87	1.93
tblVehicleEF	UBUS	0.01	0.13
tblVehicleEF	UBUS	0.79	0.18
tblVehicleEF	UBUS	0.72	1.89
tblVehicleEF	UBUS	0.07	0.05
tblVehicleEF	UBUS	3.90	13.87
tblVehicleEF	UBUS	10.53	4.09
tblVehicleEF	UBUS	1,790.75	1,467.42
tblVehicleEF	UBUS	146.64	34.18
tblVehicleEF	UBUS	2.34	0.33
tblVehicleEF	UBUS	12.07	0.38
tblVehicleEF	UBUS	0.49	0.11
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.04	2.6450e-003
tblVehicleEF	UBUS	1.4640e-003	4.4000e-004
tblVehicleEF	UBUS	0.21	0.05
tblVehicleEF	UBUS	3.0000e-003	3.7370e-003
tblVehicleEF	UBUS	0.04	2.4940e-003
tblVehicleEF	UBUS	1.3470e-003	4.0500e-004
tblVehicleEF	UBUS	2.3130e-003	9.8700e-004
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	1.4800e-003	6.1500e-004
tblVehicleEF	UBUS	0.14	0.03
tblVehicleEF	UBUS	0.01	0.17
tblVehicleEF	UBUS	0.92	0.21
tblVehicleEF	UBUS	0.01	7.4950e-003

tblVehicleEF	UBUS	1.6590e-003	3.3800e-004
tblVehicleEF	UBUS	2.3130e-003	9.8700e-004
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	1.4800e-003	6.1500e-004
tblVehicleEF	UBUS	0.87	1.93
tblVehicleEF	UBUS	0.01	0.17
tblVehicleEF	UBUS	1.00	0.23
tblVehicleTrips	CC_TL	7.30	7.89
tblVehicleTrips	CC_TL	7.30	7.88
tblVehicleTrips	CC_TL	7.30	7.89
tblVehicleTrips	CC_TTP	48.00	100.00
tblVehicleTrips	CC_TTP	28.00	100.00
tblVehicleTrips	CC_TTP	64.40	100.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00

tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	7.50	0.00
tblVehicleTrips	HO_TL	7.50	0.00
tblVehicleTrips	HO_TTP	35.70	0.00
tblVehicleTrips	HO_TTP	35.70	0.00
tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HS_TTP	17.40	0.00
tblVehicleTrips	HS_TTP	17.40	0.00
tblVehicleTrips	HW_TL	10.80	11.67
tblVehicleTrips	HW_TL	10.80	11.67
tblVehicleTrips	HW_TTP	46.90	100.00
tblVehicleTrips	HW_TTP	46.90	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	79.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	6.39	7.02
tblVehicleTrips	ST_TR	2.46	2.36

tblVehicleTrips	ST_TR	2.49	2.20
tblVehicleTrips	ST_TR	9.91	10.08
tblVehicleTrips	ST_TR	42.04	23.63
tblVehicleTrips	SU_TR	5.86	6.44
tblVehicleTrips	SU_TR	1.05	1.01
tblVehicleTrips	SU_TR	0.73	0.64
tblVehicleTrips	SU_TR	8.62	8.65
tblVehicleTrips	SU_TR	20.43	11.48
tblVehicleTrips	WD_TR	6.65	7.31
tblVehicleTrips	WD_TR	11.03	10.59
tblVehicleTrips	WD_TR	6.83	6.02
tblVehicleTrips	WD_TR	9.52	11.40
tblVehicleTrips	WD_TR	44.32	24.91
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction

'- Construction Modeled Separately

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	20.6645	0.7701	12.6789	4.6600e-003		0.1197	0.1197		0.1197	0.1197	0.0000	746.4057	746.4057	0.0333	0.0133	751.2055
Energy	0.2528	2.1781	1.0502	0.0138		0.1747	0.1747		0.1747	0.1747	0.0000	5,336.1696	5,336.1696	0.3701	0.1125	5,378.9560
Mobile	9.0026	20.3755	95.0013	0.3397	43.1155	0.2407	43.3562	11.5551	0.2261	11.7812	0.0000	31,534.3573	31,534.3573	1.0118	0.0000	31,559.6517
Waste						0.0000	0.0000		0.0000	0.0000	253.1033	0.0000	253.1033	14.9580	0.0000	627.0528
Water						0.0000	0.0000		0.0000	0.0000	114.9683	249.3999	364.3682	3.3290	0.2559	523.8466
Total	**29.9198**	**23.3237**	**108.7304**	**0.3582**	**43.1155**	**0.5351**	**43.6506**	**11.5551**	**0.5205**	**12.0756**	**368.0716**	**37,866.3326**	**38,234.4042**	**19.7022**	**0.3817**	**38,840.7126**

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	20.1478	0.7673	12.3939	4.6400e-003		0.1180	0.1180		0.1180	0.1180	0.0000	745.8273	745.8273	0.0327	0.0133	750.6108
Energy	0.2528	2.1781	1.0502	0.0138		0.1747	0.1747		0.1747	0.1747	0.0000	4,202.4118	4,202.4118	0.2413	0.0859	4,234.0303
Mobile	9.0026	20.3755	95.0013	0.3397	43.1155	0.2407	43.3562	11.5551	0.2261	11.7812	0.0000	31,534.3573	31,534.3573	1.0118	0.0000	31,559.6517
Waste						0.0000	0.0000		0.0000	0.0000	253.1033	0.0000	253.1033	14.9580	0.0000	627.0528
Water						0.0000	0.0000		0.0000	0.0000	91.9746	199.5200	291.4946	2.6632	0.2047	419.0773
Total	**29.4031**	**23.3209**	**108.4454**	**0.3581**	**43.1155**	**0.5334**	**43.6489**	**11.5551**	**0.5188**	**12.0739**	**345.0780**	**36,682.1164**	**37,027.1944**	**18.9069**	**0.3039**	**37,590.4229**

	ROG	NOx	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	1.73	0.01	0.26	0.01	0.00	0.32	0.00	0.00	0.33	0.01	6.25	3.13	3.16	4.04	20.39	3.22

3.0 Construction Detail

'- Emissions Modeled Separately

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.0026	20.3755	95.0013	0.3397	43.1155	0.2407	43.3562	11.5551	0.2261	11.7812	0.0000	31,534.3573	31,534.3573	1.0118	0.0000	31,559.6517
Unmitigated	9.0026	20.3755	95.0013	0.3397	43.1155	0.2407	43.3562	11.5551	0.2261	11.7812	0.0000	31,534.3573	31,534.3573	1.0118	0.0000	31,559.6517

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	211.99	203.58	186.76	880,094	880,094
General Office Building	2,702.57	602.27	257.75	5,896,899	5,896,899
Industrial Park	3,724.27	1,361.03	395.94	8,350,225	8,350,225
Single Family Housing	18,775.80	16,601.76	14246.55	75,689,521	75,689,521
Strip Mall	9,191.79	8,719.47	4236.12	24,171,457	24,171,457
Total	34,606.42	27,488.11	19,323.12	114,988,196	114,988,196

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
Apartments Mid Rise	11.67	0.00	0.00	100.00	0.00	0.00	100	0	0
General Office Building	0.00	7.89	0.00	0.00	100.00	0.00	100	0	0
Industrial Park	0.00	7.88	0.00	0.00	100.00	0.00	100	0	0
Single Family Housing	11.67	0.00	0.00	100.00	0.00	0.00	100	0	0
Strip Mall	0.00	7.89	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
General Office Building	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
Industrial Park	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
Single Family Housing	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
Strip Mall	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,700.636 8	1,700.636 8	0.1933	0.0400	1,717.388 5
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,834.394 6	2,834.394 6	0.3222	0.0667	2,862.314 1
NaturalGas Mitigated	0.2528	2.1781	1.0502	0.0138		0.1747	0.1747		0.1747	0.1747	0.0000	2,501.775 1	2,501.775 1	0.0480	0.0459	2,516.641 9
NaturalGas Unmitigated	0.2528	2.1781	1.0502	0.0138		0.1747	0.1747		0.1747	0.1747	0.0000	2,501.775 1	2,501.775 1	0.0480	0.0459	2,516.641 9

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					
Apartments Mid Rise	335995	1.8100e-003	0.0155	6.5900e-003	1.0000e-004		1.2500e-003	1.2500e-003		1.2500e-003	1.2500e-003	0.0000	17.9300	17.9300	3.4000e-004	3.3000e-004	18.0365
General Office Building	2.35294e+006	0.0127	0.1153	0.0969	6.9000e-004		8.7700e-003	8.7700e-003		8.7700e-003	8.7700e-003	0.0000	125.5621	125.5621	2.4100e-003	2.3000e-003	126.3082
Industrial Park	723821	3.9000e-003	0.0355	0.0298	2.1000e-004		2.7000e-003	2.7000e-003		2.7000e-003	2.7000e-003	0.0000	38.6258	38.6258	7.4000e-004	7.1000e-004	38.8554
Single Family Housing	4.04761e+007	0.2183	1.8651	0.7937	0.0119		0.1508	0.1508		0.1508	0.1508	0.0000	2,159.9612	2,159.9612	0.0414	0.0396	2,172.7968
Strip Mall	2.99259e+006	0.0161	0.1467	0.1232	8.8000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	159.6960	159.6960	3.0600e-003	2.9300e-003	160.6450
Total		**0.2528**	**2.1781**	**1.0502**	**0.0138**		**0.1747**	**0.1747**		**0.1747**	**0.1747**	**0.0000**	**2,501.7751**	**2,501.7751**	**0.0480**	**0.0459**	**2,516.6419**

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					
Apartments Mid Rise	335995	1.8100e-003	0.0155	6.5900e-003	1.0000e-004		1.2500e-003	1.2500e-003		1.2500e-003	1.2500e-003	0.0000	17.9300	17.9300	3.4000e-004	3.3000e-004	18.0365
General Office Building	2.35294e+006	0.0127	0.1153	0.0969	6.9000e-004		8.7700e-003	8.7700e-003		8.7700e-003	8.7700e-003	0.0000	125.5621	125.5621	2.4100e-003	2.3000e-003	126.3082
Industrial Park	723821	3.9000e-003	0.0355	0.0298	2.1000e-004		2.7000e-003	2.7000e-003		2.7000e-003	2.7000e-003	0.0000	38.6258	38.6258	7.4000e-004	7.1000e-004	38.8554
Single Family Housing	4.04761e+007	0.2183	1.8651	0.7937	0.0119		0.1508	0.1508		0.1508	0.1508	0.0000	2,159.9612	2,159.9612	0.0414	0.0396	2,172.7968
Strip Mall	2.99259e+006	0.0161	0.1467	0.1232	8.8000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	159.6960	159.6960	3.0600e-003	2.9300e-003	160.6450
Total		**0.2528**	**2.1781**	**1.0502**	**0.0138**		**0.1747**	**0.1747**		**0.1747**	**0.1747**	**0.0000**	**2,501.7751**	**2,501.7751**	**0.0480**	**0.0459**	**2,516.6419**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	128969	14.9243	1.7000e-003	3.5000e-004	15.0713
General Office Building	2.12582e+006	246.0005	0.0280	5.7900e-003	248.4236
Industrial Park	5.15335e+006	596.3487	0.0678	0.0140	602.2229
Single Family Housing	1.43141e+007	1,656.4377	0.1883	0.0390	1,672.7540
Strip Mall	2.77119e+006	320.6835	0.0365	7.5400e-003	323.8423
Total		**2,834.3946**	**0.3222**	**0.0667**	**2,862.3141**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	77381.3	8.9546	1.0200e-003	2.1000e-004	9.0428
General Office Building	1.27549e+006	147.6003	0.0168	3.4700e-003	149.0542
Industrial Park	3.09201e+006	357.8092	0.0407	8.4200e-003	361.3337
Single Family Housing	8.58848e+006	993.8626	0.1130	0.0234	1,003.652 4
Strip Mall	1.66271e+006	192.4101	0.0219	4.5300e-003	194.3054
Total		**1,700.636 8**	**0.1933**	**0.0400**	**1,717.388 5**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	20.1478	0.7673	12.3939	4.6400e-003		0.1180	0.1180		0.1180	0.1180	0.0000	745.8273	745.8273	0.0327	0.0133	750.6108
Unmitigated	20.6645	0.7701	12.6789	4.6600e-003		0.1197	0.1197		0.1197	0.1197	0.0000	746.4057	746.4057	0.0333	0.0133	751.2055

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	3.6739					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	16.5455					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0734	0.6269	0.2668	4.0000e-003		0.0507	0.0507		0.0507	0.0507	0.0000	726.0556	726.0556	0.0139	0.0133	730.3702
Landscaping	0.3718	0.1432	12.4121	6.6000e-004		0.0691	0.0691		0.0691	0.0691	0.0000	20.3501	20.3501	0.0194	0.0000	20.8353
Total	**20.6645**	**0.7701**	**12.6789**	**4.6600e-003**		**0.1197**	**0.1197**		**0.1197**	**0.1197**	**0.0000**	**746.4057**	**746.4057**	**0.0333**	**0.0133**	**751.2055**

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	3.1698					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	16.5455					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0734	0.6269	0.2668	4.0000e-003		0.0507	0.0507		0.0507	0.0507	0.0000	726.0556	726.0556	0.0139	0.0133	730.3702
Landscaping	0.3592	0.1404	12.1272	6.4000e-004		0.0673	0.0673		0.0673	0.0673	0.0000	19.7717	19.7717	0.0188	0.0000	20.2406
Total	**20.1478**	**0.7673**	**12.3939**	**4.6400e-003**		**0.1180**	**0.1180**		**0.1180**	**0.1180**	**0.0000**	**745.8273**	**745.8273**	**0.0327**	**0.0133**	**750.6108**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	291.4946	2.6632	0.2047	419.0773
Unmitigated	364.3682	3.3290	0.2559	523.8466

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.88947 / 1.19119	2.3341	0.0194	1.4900e-003	3.2635
General Office Building	45.3577 / 27.7999	55.7085	0.4652	0.0358	78.0167
Industrial Park	143.063 / 0	140.1966	1.4633	0.1122	210.2092
Single Family Housing	107.309 / 67.6511	132.5589	1.1007	0.0848	185.3440
Strip Mall	27.3328 / 16.7523	33.5702	0.2804	0.0216	47.0133
Total		**364.3683**	**3.3290**	**0.2559**	**523.8466**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.51157 / 0.952948	1.8673	0.0155	1.1900e-003	2.6108
General Office Building	36.2861 / 22.2399	44.5668	0.3722	0.0287	62.4133
Industrial Park	114.45 / 0	112.1573	1.1707	0.0897	168.1674
Single Family Housing	85.8469 / 54.1209	106.0472	0.8806	0.0678	148.2752
Strip Mall	21.8662 / 13.4019	26.8562	0.2243	0.0173	37.6106
Total		**291.4946**	**2.6632**	**0.2047**	**419.0773**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	253.1033	14.9580	0.0000	627.0528
Unmitigated	253.1033	14.9580	0.0000	627.0528

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	5.6	1.1368	0.0672	0.0000	2.8163
General Office Building	90.19	18.3078	1.0820	0.0000	45.3567
Industrial Park	291.51	59.1739	3.4971	0.0000	146.6008
Single Family Housing	712.15	144.5600	8.5433	0.0000	358.1413
Strip Mall	147.42	29.9249	1.7685	0.0000	74.1377
Total		**253.1033**	**14.9580**	**0.0000**	**627.0528**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	5.6	1.1368	0.0672	0.0000	2.8163
General Office Building	90.19	18.3078	1.0820	0.0000	45.3567
Industrial Park	291.51	59.1739	3.4971	0.0000	146.6008
Single Family Housing	712.15	144.5600	8.5433	0.0000	358.1413
Strip Mall	147.42	29.9249	1.7685	0.0000	74.1377
Total		**253.1033**	**14.9580**	**0.0000**	**627.0528**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Winton - Operational - Mitigated - GHG Reductions (17b,20,21c, & 22)

Merced County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	255.20	1000sqft	16.01	255,200.00	0
Industrial Park	618.65	1000sqft	50.95	618,650.00	0
Apartments Mid Rise	29.00	Dwelling Unit	2.34	29,000.00	83
Single Family Housing	1,647.00	Dwelling Unit	488.00	2,964,600.00	4710
Strip Mall	369.00	1000sqft	35.00	369,000.00	0

1.2 Other Project Characteristics

Urbanization Urban | **Wind Speed (m/s)** 2.2 | **Precipitation Freq (Days)** 49

Climate Zone 3 | **Operational Year** 2035

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 255.12 | **CH4 Intensity (lb/MWhr)** 0.029 | **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - Construction modeled separately

Off-road Equipment - See assumptions

Vehicle Trips - See Assumptions

Road Dust - see assumptions

Energy Use - See Assumptions

Water And Wastewater - See Assumptions

Solid Waste - See Assumptions

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation - See Assumptions

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	150	50
tblEnergyUse	T24E	700.71	651.66
tblEnergyUse	T24E	2.62	1.83
tblEnergyUse	T24E	2.62	1.83
tblEnergyUse	T24E	995.93	926.22
tblEnergyUse	T24E	2.14	1.50
tblEnergyUse	T24NG	8,454.86	7,863.02
tblEnergyUse	T24NG	12.77	8.94
tblEnergyUse	T24NG	12.77	0.89

tblEnergyUse	T24NG	22,422.24	20,852.68
tblEnergyUse	T24NG	8.62	6.03
tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
tblFleetMix	HHD	0.15	0.02
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDA	0.54	0.62
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LDT2	0.16	0.15
tblFleetMix	LHD1	8.2190e-003	0.02
tblFleetMix	LHD1	8.2190e-003	0.02
tblFleetMix	LHD1	8.2190e-003	0.02
tblFleetMix	LHD1	8.2190e-003	0.02
tblFleetMix	LHD1	8.2190e-003	0.02

tblFleetMix	LHD2	3.1010e-003	4.6720e-003
tblFleetMix	LHD2	3.1010e-003	4.6720e-003
tblFleetMix	LHD2	3.1010e-003	4.6720e-003
tblFleetMix	LHD2	3.1010e-003	4.6720e-003
tblFleetMix	LHD2	3.1010e-003	4.6720e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MCY	5.3750e-003	5.5270e-003
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MDV	0.08	0.10
tblFleetMix	MH	3.9400e-004	5.3900e-004
tblFleetMix	MH	3.9400e-004	5.3900e-004
tblFleetMix	MH	3.9400e-004	5.3900e-004
tblFleetMix	MH	3.9400e-004	5.3900e-004
tblFleetMix	MH	3.9400e-004	5.3900e-004
tblFleetMix	MHD	0.01	0.02
tblFleetMix	MHD	0.01	0.02
tblFleetMix	MHD	0.01	0.02
tblFleetMix	MHD	0.01	0.02
tblFleetMix	MHD	0.01	0.02
tblFleetMix	OBUS	2.3180e-003	1.6850e-003
tblFleetMix	OBUS	2.3180e-003	1.6850e-003

tblFleetMix	OBUS	2.3180e-003	1.6850e-003
tblFleetMix	OBUS	2.3180e-003	1.6850e-003
tblFleetMix	OBUS	2.3180e-003	1.6850e-003
tblFleetMix	SBUS	1.1980e-003	1.8630e-003
tblFleetMix	SBUS	1.1980e-003	1.8630e-003
tblFleetMix	SBUS	1.1980e-003	1.8630e-003
tblFleetMix	SBUS	1.1980e-003	1.8630e-003
tblFleetMix	SBUS	1.1980e-003	1.8630e-003
tblFleetMix	UBUS	1.4170e-003	1.4970e-003
tblFleetMix	UBUS	1.4170e-003	1.4970e-003
tblFleetMix	UBUS	1.4170e-003	1.4970e-003
tblFleetMix	UBUS	1.4170e-003	1.4970e-003
tblFleetMix	UBUS	1.4170e-003	1.4970e-003
tblLandUse	LotAcreage	5.86	16.01
tblLandUse	LotAcreage	14.20	50.95
tblLandUse	LotAcreage	0.76	2.34
tblLandUse	LotAcreage	534.74	488.00
tblLandUse	LotAcreage	8.47	35.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	255.12
tblSolidWaste	SolidWasteGenerationRate	13.34	5.60
tblSolidWaste	SolidWasteGenerationRate	237.34	90.19
tblSolidWaste	SolidWasteGenerationRate	767.13	291.51
tblSolidWaste	SolidWasteGenerationRate	1,695.60	712.15
tblSolidWaste	SolidWasteGenerationRate	387.45	147.42
tblVehicleEF	HHD	2.26	0.02
tblVehicleEF	HHD	5.9230e-003	2.2340e-003

tblVehicleEF	HHD	0.06	0.00
tblVehicleEF	HHD	1.83	7.50
tblVehicleEF	HHD	0.50	0.21
tblVehicleEF	HHD	0.45	5.7900e-004
tblVehicleEF	HHD	5,420.44	1,007.75
tblVehicleEF	HHD	1,442.40	1,040.69
tblVehicleEF	HHD	1.35	4.2460e-003
tblVehicleEF	HHD	15.17	6.02
tblVehicleEF	HHD	1.35	2.16
tblVehicleEF	HHD	20.70	2.24
tblVehicleEF	HHD	1.8290e-003	2.1960e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.3490e-003	0.03
tblVehicleEF	HHD	1.4000e-005	0.00
tblVehicleEF	HHD	1.7500e-003	2.1010e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9730e-003	8.9820e-003
tblVehicleEF	HHD	5.1170e-003	0.02
tblVehicleEF	HHD	1.3000e-005	0.00
tblVehicleEF	HHD	1.9000e-005	0.00
tblVehicleEF	HHD	6.3800e-004	5.0000e-006
tblVehicleEF	HHD	0.49	0.51
tblVehicleEF	HHD	1.0000e-005	0.00
tblVehicleEF	HHD	0.08	0.02
tblVehicleEF	HHD	4.9000e-005	2.2000e-005
tblVehicleEF	HHD	7.7960e-003	0.00

tblVehicleEF	HHD	0.05	9.5170e-003
tblVehicleEF	HHD	0.01	9.8230e-003
tblVehicleEF	HHD	2.1000e-005	0.00
tblVehicleEF	HHD	1.9000e-005	0.00
tblVehicleEF	HHD	6.3800e-004	5.0000e-006
tblVehicleEF	HHD	0.56	0.58
tblVehicleEF	HHD	1.0000e-005	0.00
tblVehicleEF	HHD	0.09	0.02
tblVehicleEF	HHD	4.9000e-005	2.2000e-005
tblVehicleEF	HHD	8.5360e-003	0.00
tblVehicleEF	HHD	2.13	0.03
tblVehicleEF	HHD	5.9290e-003	2.2340e-003
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	1.33	7.41
tblVehicleEF	HHD	0.50	0.21
tblVehicleEF	HHD	0.41	5.3700e-004
tblVehicleEF	HHD	5,742.47	994.62
tblVehicleEF	HHD	1,442.40	1,040.69
tblVehicleEF	HHD	1.35	4.1790e-003
tblVehicleEF	HHD	15.66	5.72
tblVehicleEF	HHD	1.29	2.06
tblVehicleEF	HHD	20.70	2.24
tblVehicleEF	HHD	1.5420e-003	1.9500e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.3490e-003	0.03
tblVehicleEF	HHD	1.4000e-005	0.00

tblVehicleEF	HHD	1.4750e-003	1.8650e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9730e-003	8.9820e-003
tblVehicleEF	HHD	5.1170e-003	0.02
tblVehicleEF	HHD	1.3000e-005	0.00
tblVehicleEF	HHD	4.5000e-005	0.00
tblVehicleEF	HHD	7.0500e-004	5.0000e-006
tblVehicleEF	HHD	0.46	0.54
tblVehicleEF	HHD	1.9000e-005	0.00
tblVehicleEF	HHD	0.08	0.02
tblVehicleEF	HHD	4.9000e-005	2.2000e-005
tblVehicleEF	HHD	7.3640e-003	0.00
tblVehicleEF	HHD	0.05	9.3930e-003
tblVehicleEF	HHD	0.01	9.8230e-003
tblVehicleEF	HHD	2.0000e-005	0.00
tblVehicleEF	HHD	4.5000e-005	0.00
tblVehicleEF	HHD	7.0500e-004	5.0000e-006
tblVehicleEF	HHD	0.53	0.61
tblVehicleEF	HHD	1.9000e-005	0.00
tblVehicleEF	HHD	0.09	0.02
tblVehicleEF	HHD	4.9000e-005	2.2000e-005
tblVehicleEF	HHD	8.0630e-003	0.00
tblVehicleEF	HHD	2.44	0.02
tblVehicleEF	HHD	5.9160e-003	2.2330e-003
tblVehicleEF	HHD	0.06	0.00
tblVehicleEF	HHD	2.52	7.64
tblVehicleEF	HHD	0.50	0.21

tblVehicleEF	HHD	0.48	6.3000e-004
tblVehicleEF	HHD	4,975.72	1,025.89
tblVehicleEF	HHD	1,442.40	1,040.69
tblVehicleEF	HHD	1.35	4.3280e-003
tblVehicleEF	HHD	14.50	6.43
tblVehicleEF	HHD	1.38	2.20
tblVehicleEF	HHD	20.70	2.24
tblVehicleEF	HHD	2.2260e-003	2.5360e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.3490e-003	0.03
tblVehicleEF	HHD	1.4000e-005	0.00
tblVehicleEF	HHD	2.1290e-003	2.4260e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9730e-003	8.9820e-003
tblVehicleEF	HHD	5.1170e-003	0.02
tblVehicleEF	HHD	1.3000e-005	0.00
tblVehicleEF	HHD	7.0000e-006	0.00
tblVehicleEF	HHD	6.3500e-004	5.0000e-006
tblVehicleEF	HHD	0.53	0.47
tblVehicleEF	HHD	5.0000e-006	0.00
tblVehicleEF	HHD	0.08	0.02
tblVehicleEF	HHD	5.5000e-005	2.5000e-005
tblVehicleEF	HHD	8.2950e-003	0.00
tblVehicleEF	HHD	0.05	9.6890e-003
tblVehicleEF	HHD	0.01	9.8230e-003
tblVehicleEF	HHD	2.1000e-005	0.00

tblVehicleEF	HHD	7.0000e-006	0.00
tblVehicleEF	HHD	6.3500e-004	5.0000e-006
tblVehicleEF	HHD	0.61	0.53
tblVehicleEF	HHD	5.0000e-006	0.00
tblVehicleEF	HHD	0.09	0.02
tblVehicleEF	HHD	5.5000e-005	2.5000e-005
tblVehicleEF	HHD	9.0820e-003	0.00
tblVehicleEF	LDA	1.6980e-003	8.9200e-004
tblVehicleEF	LDA	1.2810e-003	0.02
tblVehicleEF	LDA	0.31	0.42
tblVehicleEF	LDA	0.47	1.54
tblVehicleEF	LDA	178.24	200.23
tblVehicleEF	LDA	38.17	39.46
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.12
tblVehicleEF	LDA	9.4600e-004	8.0800e-004
tblVehicleEF	LDA	1.4000e-003	1.0410e-003
tblVehicleEF	LDA	8.7000e-004	7.4400e-004
tblVehicleEF	LDA	1.2880e-003	9.5800e-004
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	4.2700e-003	2.7960e-003
tblVehicleEF	LDA	0.02	0.17
tblVehicleEF	LDA	0.02	0.09
tblVehicleEF	LDA	1.7830e-003	1.9810e-003
tblVehicleEF	LDA	3.8900e-004	3.9000e-004

tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	6.2060e-003	4.0610e-003
tblVehicleEF	LDA	0.02	0.17
tblVehicleEF	LDA	0.02	0.10
tblVehicleEF	LDA	1.9530e-003	1.0380e-003
tblVehicleEF	LDA	1.0560e-003	0.02
tblVehicleEF	LDA	0.38	0.52
tblVehicleEF	LDA	0.39	1.29
tblVehicleEF	LDA	195.64	219.28
tblVehicleEF	LDA	38.17	39.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.11
tblVehicleEF	LDA	9.4600e-004	8.0800e-004
tblVehicleEF	LDA	1.4000e-003	1.0410e-003
tblVehicleEF	LDA	8.7000e-004	7.4400e-004
tblVehicleEF	LDA	1.2880e-003	9.5800e-004
tblVehicleEF	LDA	0.05	0.08
tblVehicleEF	LDA	0.06	0.07
tblVehicleEF	LDA	0.03	0.05
tblVehicleEF	LDA	4.9000e-003	3.2010e-003
tblVehicleEF	LDA	0.02	0.17
tblVehicleEF	LDA	0.01	0.08
tblVehicleEF	LDA	1.9580e-003	2.1690e-003
tblVehicleEF	LDA	3.8800e-004	3.8600e-004
tblVehicleEF	LDA	0.05	0.08

tblVehicleEF	LDA	0.06	0.07
tblVehicleEF	LDA	0.03	0.05
tblVehicleEF	LDA	7.1260e-003	4.6530e-003
tblVehicleEF	LDA	0.02	0.17
tblVehicleEF	LDA	0.02	0.09
tblVehicleEF	LDA	1.5960e-003	8.2700e-004
tblVehicleEF	LDA	1.5000e-003	0.03
tblVehicleEF	LDA	0.28	0.39
tblVehicleEF	LDA	0.57	1.87
tblVehicleEF	LDA	172.00	193.41
tblVehicleEF	LDA	38.17	40.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.13
tblVehicleEF	LDA	9.4600e-004	8.0800e-004
tblVehicleEF	LDA	1.4000e-003	1.0410e-003
tblVehicleEF	LDA	8.7000e-004	7.4400e-004
tblVehicleEF	LDA	1.2880e-003	9.5800e-004
tblVehicleEF	LDA	6.6130e-003	0.01
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	5.6950e-003	9.6750e-003
tblVehicleEF	LDA	4.0170e-003	2.6330e-003
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.02	0.11
tblVehicleEF	LDA	1.7200e-003	1.9130e-003
tblVehicleEF	LDA	3.9100e-004	3.9600e-004
tblVehicleEF	LDA	6.6130e-003	0.01
tblVehicleEF	LDA	0.05	0.06

tblVehicleEF	LDA	5.6950e-003	9.6750e-003
tblVehicleEF	LDA	5.8370e-003	3.8230e-003
tblVehicleEF	LDA	0.03	0.21
tblVehicleEF	LDA	0.02	0.12
tblVehicleEF	LDT1	3.0530e-003	1.4300e-003
tblVehicleEF	LDT1	3.6040e-003	0.03
tblVehicleEF	LDT1	0.45	0.51
tblVehicleEF	LDT1	0.90	1.66
tblVehicleEF	LDT1	229.29	239.80
tblVehicleEF	LDT1	50.14	48.10
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.04	0.14
tblVehicleEF	LDT1	1.1950e-003	9.2400e-004
tblVehicleEF	LDT1	1.7740e-003	1.1910e-003
tblVehicleEF	LDT1	1.0990e-003	8.4900e-004
tblVehicleEF	LDT1	1.6310e-003	1.0950e-003
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.04	0.05
tblVehicleEF	LDT1	7.5680e-003	5.2150e-003
tblVehicleEF	LDT1	0.06	0.34
tblVehicleEF	LDT1	0.05	0.13
tblVehicleEF	LDT1	2.2960e-003	2.3730e-003
tblVehicleEF	LDT1	5.1600e-004	4.7600e-004
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.04	0.05

tblVehicleEF	LDT1	0.01	7.6240e-003
tblVehicleEF	LDT1	0.06	0.34
tblVehicleEF	LDT1	0.05	0.14
tblVehicleEF	LDT1	3.4960e-003	1.6560e-003
tblVehicleEF	LDT1	2.9720e-003	0.03
tblVehicleEF	LDT1	0.56	0.63
tblVehicleEF	LDT1	0.74	1.39
tblVehicleEF	LDT1	251.22	259.39
tblVehicleEF	LDT1	50.14	47.61
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.04	0.13
tblVehicleEF	LDT1	1.1950e-003	9.2400e-004
tblVehicleEF	LDT1	1.7740e-003	1.1910e-003
tblVehicleEF	LDT1	1.0990e-003	8.4900e-004
tblVehicleEF	LDT1	1.6310e-003	1.0950e-003
tblVehicleEF	LDT1	0.15	0.16
tblVehicleEF	LDT1	0.14	0.11
tblVehicleEF	LDT1	0.09	0.10
tblVehicleEF	LDT1	8.6640e-003	5.9660e-003
tblVehicleEF	LDT1	0.06	0.33
tblVehicleEF	LDT1	0.04	0.11
tblVehicleEF	LDT1	2.5170e-003	2.5670e-003
tblVehicleEF	LDT1	5.1300e-004	4.7100e-004
tblVehicleEF	LDT1	0.15	0.16
tblVehicleEF	LDT1	0.14	0.11
tblVehicleEF	LDT1	0.09	0.10
tblVehicleEF	LDT1	0.01	8.7210e-003

tblVehicleEF	LDT1	0.06	0.33
tblVehicleEF	LDT1	0.04	0.12
tblVehicleEF	LDT1	2.8750e-003	1.3290e-003
tblVehicleEF	LDT1	4.2230e-003	0.03
tblVehicleEF	LDT1	0.42	0.47
tblVehicleEF	LDT1	1.09	2.02
tblVehicleEF	LDT1	221.43	232.79
tblVehicleEF	LDT1	50.14	48.72
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.05	0.16
tblVehicleEF	LDT1	1.1950e-003	9.2400e-004
tblVehicleEF	LDT1	1.7740e-003	1.1910e-003
tblVehicleEF	LDT1	1.0990e-003	8.4900e-004
tblVehicleEF	LDT1	1.6310e-003	1.0950e-003
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	7.1250e-003	4.9120e-003
tblVehicleEF	LDT1	0.07	0.41
tblVehicleEF	LDT1	0.06	0.15
tblVehicleEF	LDT1	2.2170e-003	2.3040e-003
tblVehicleEF	LDT1	5.1900e-004	4.8200e-004
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.01	7.1800e-003
tblVehicleEF	LDT1	0.07	0.41

tblVehicleEF	LDT1	0.06	0.16
tblVehicleEF	LDT2	2.7600e-003	1.5570e-003
tblVehicleEF	LDT2	2.4660e-003	0.03
tblVehicleEF	LDT2	0.47	0.55
tblVehicleEF	LDT2	0.75	2.06
tblVehicleEF	LDT2	260.94	242.47
tblVehicleEF	LDT2	56.29	48.96
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.04	0.15
tblVehicleEF	LDT2	1.1130e-003	9.1200e-004
tblVehicleEF	LDT2	1.6240e-003	1.0960e-003
tblVehicleEF	LDT2	1.0240e-003	8.4000e-004
tblVehicleEF	LDT2	1.4940e-003	1.0080e-003
tblVehicleEF	LDT2	0.04	0.07
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	6.8660e-003	5.6520e-003
tblVehicleEF	LDT2	0.04	0.31
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	2.6120e-003	2.3990e-003
tblVehicleEF	LDT2	5.7500e-004	4.8500e-004
tblVehicleEF	LDT2	0.04	0.07
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.01	8.2050e-003
tblVehicleEF	LDT2	0.04	0.31
tblVehicleEF	LDT2	0.04	0.16

tblVehicleEF	LDT2	3.1650e-003	1.8040e-003
tblVehicleEF	LDT2	2.0740e-003	0.03
tblVehicleEF	LDT2	0.58	0.68
tblVehicleEF	LDT2	0.64	1.71
tblVehicleEF	LDT2	285.89	260.42
tblVehicleEF	LDT2	56.29	48.35
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.04	0.14
tblVehicleEF	LDT2	1.1130e-003	9.1200e-004
tblVehicleEF	LDT2	1.6240e-003	1.0960e-003
tblVehicleEF	LDT2	1.0240e-003	8.4000e-004
tblVehicleEF	LDT2	1.4940e-003	1.0080e-003
tblVehicleEF	LDT2	0.09	0.16
tblVehicleEF	LDT2	0.08	0.10
tblVehicleEF	LDT2	0.06	0.11
tblVehicleEF	LDT2	7.8700e-003	6.4460e-003
tblVehicleEF	LDT2	0.04	0.30
tblVehicleEF	LDT2	0.03	0.12
tblVehicleEF	LDT2	2.8630e-003	2.5760e-003
tblVehicleEF	LDT2	5.7300e-004	4.7800e-004
tblVehicleEF	LDT2	0.09	0.16
tblVehicleEF	LDT2	0.08	0.10
tblVehicleEF	LDT2	0.06	0.11
tblVehicleEF	LDT2	0.01	9.3670e-003
tblVehicleEF	LDT2	0.04	0.30
tblVehicleEF	LDT2	0.03	0.13
tblVehicleEF	LDT2	2.5960e-003	1.4450e-003

tblVehicleEF	LDT2	2.8470e-003	0.04
tblVehicleEF	LDT2	0.43	0.51
tblVehicleEF	LDT2	0.88	2.51
tblVehicleEF	LDT2	251.99	236.05
tblVehicleEF	LDT2	56.29	49.74
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.04	0.16
tblVehicleEF	LDT2	1.1130e-003	9.1200e-004
tblVehicleEF	LDT2	1.6240e-003	1.0960e-003
tblVehicleEF	LDT2	1.0240e-003	8.4000e-004
tblVehicleEF	LDT2	1.4940e-003	1.0080e-003
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	6.4620e-003	5.3310e-003
tblVehicleEF	LDT2	0.05	0.38
tblVehicleEF	LDT2	0.04	0.17
tblVehicleEF	LDT2	2.5220e-003	2.3350e-003
tblVehicleEF	LDT2	5.7700e-004	4.9200e-004
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	9.4150e-003	7.7360e-003
tblVehicleEF	LDT2	0.05	0.38
tblVehicleEF	LDT2	0.04	0.19
tblVehicleEF	LHD1	3.3030e-003	3.4300e-003
tblVehicleEF	LHD1	7.2730e-003	5.1120e-003

tblVehicleEF	LHD1	7.8940e-003	7.1800e-003
tblVehicleEF	LHD1	0.13	0.16
tblVehicleEF	LHD1	0.61	0.50
tblVehicleEF	LHD1	1.27	0.75
tblVehicleEF	LHD1	9.21	8.46
tblVehicleEF	LHD1	631.32	664.88
tblVehicleEF	LHD1	22.81	8.35
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.90	0.51
tblVehicleEF	LHD1	0.53	0.18
tblVehicleEF	LHD1	8.9900e-004	1.0850e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	9.8490e-003
tblVehicleEF	LHD1	4.8600e-004	1.6500e-004
tblVehicleEF	LHD1	8.6000e-004	1.0380e-003
tblVehicleEF	LHD1	2.6370e-003	2.5240e-003
tblVehicleEF	LHD1	0.01	9.3840e-003
tblVehicleEF	LHD1	4.4700e-004	1.5200e-004
tblVehicleEF	LHD1	2.0260e-003	1.7370e-003
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	9.4300e-004	7.9800e-004
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.11	0.03
tblVehicleEF	LHD1	9.1000e-005	8.2000e-005
tblVehicleEF	LHD1	6.1560e-003	6.4670e-003

tblVehicleEF	LHD1	2.5100e-004	8.3000e-005
tblVehicleEF	LHD1	2.0260e-003	1.7370e-003
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.4300e-004	7.9800e-004
tblVehicleEF	LHD1	0.12	0.10
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.12	0.04
tblVehicleEF	LHD1	3.3030e-003	3.4400e-003
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tblVehicleEF	LHD1	7.4550e-003	6.8040e-003
tblVehicleEF	LHD1	0.13	0.16
tblVehicleEF	LHD1	0.61	0.50
tblVehicleEF	LHD1	1.18	0.70
tblVehicleEF	LHD1	9.21	8.46
tblVehicleEF	LHD1	631.32	664.88
tblVehicleEF	LHD1	22.81	8.27
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.85	0.48
tblVehicleEF	LHD1	0.50	0.17
tblVehicleEF	LHD1	8.9900e-004	1.0850e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	9.8490e-003
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tblVehicleEF	LHD1	8.6000e-004	1.0380e-003
tblVehicleEF	LHD1	2.6370e-003	2.5240e-003
tblVehicleEF	LHD1	0.01	9.3840e-003

tblVehicleEF	LHD1	4.4700e-004	1.5200e-004
tblVehicleEF	LHD1	4.7920e-003	4.1240e-003
tblVehicleEF	LHD1	0.07	0.06
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	1.8750e-003	1.6030e-003
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.10	0.03
tblVehicleEF	LHD1	9.1000e-005	8.2000e-005
tblVehicleEF	LHD1	6.1560e-003	6.4670e-003
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tblVehicleEF	LHD1	4.7920e-003	4.1240e-003
tblVehicleEF	LHD1	0.07	0.06
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.8750e-003	1.6030e-003
tblVehicleEF	LHD1	0.12	0.10
tblVehicleEF	LHD1	0.13	0.26
tblVehicleEF	LHD1	0.11	0.04
tblVehicleEF	LHD1	3.3030e-003	3.4200e-003
tblVehicleEF	LHD1	7.1910e-003	5.0610e-003
tblVehicleEF	LHD1	8.3800e-003	7.5890e-003
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tblVehicleEF	LHD1	0.60	0.49
tblVehicleEF	LHD1	1.37	0.81
tblVehicleEF	LHD1	9.21	8.46
tblVehicleEF	LHD1	631.32	664.87
tblVehicleEF	LHD1	22.81	8.46

tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.92	0.52
tblVehicleEF	LHD1	0.57	0.19
tblVehicleEF	LHD1	8.9900e-004	1.0850e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	9.8490e-003
tblVehicleEF	LHD1	4.8600e-004	1.6500e-004
tblVehicleEF	LHD1	8.6000e-004	1.0380e-003
tblVehicleEF	LHD1	2.6370e-003	2.5240e-003
tblVehicleEF	LHD1	0.01	9.3840e-003
tblVehicleEF	LHD1	4.4700e-004	1.5200e-004
tblVehicleEF	LHD1	7.3900e-004	6.2300e-004
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tblVehicleEF	LHD1	4.3600e-004	3.6500e-004
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.15	0.29
tblVehicleEF	LHD1	0.11	0.04
tblVehicleEF	LHD1	9.1000e-005	8.2000e-005
tblVehicleEF	LHD1	6.1560e-003	6.4670e-003
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tblVehicleEF	LHD1	7.3900e-004	6.2300e-004
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	4.3600e-004	3.6500e-004
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.15	0.29

tblVehicleEF	LHD1	0.12	0.04
tblVehicleEF	LHD2	2.2910e-003	2.1400e-003
tblVehicleEF	LHD2	5.0030e-003	5.6170e-003
tblVehicleEF	LHD2	2.5640e-003	3.8460e-003
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tblVehicleEF	LHD2	0.45	0.56
tblVehicleEF	LHD2	0.82	0.40
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tblVehicleEF	LHD2	20.75	5.33
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.20	0.62
tblVehicleEF	LHD2	0.23	0.11
tblVehicleEF	LHD2	9.8100e-004	1.5680e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.7600e-003	0.02
tblVehicleEF	LHD2	3.5900e-004	8.3000e-005
tblVehicleEF	LHD2	9.3900e-004	1.5000e-003
tblVehicleEF	LHD2	2.7150e-003	2.7420e-003
tblVehicleEF	LHD2	8.3590e-003	0.02
tblVehicleEF	LHD2	3.3000e-004	7.7000e-005
tblVehicleEF	LHD2	6.8500e-004	8.3500e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.4000e-004	4.1400e-004
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tblVehicleEF	LHD2	0.03	0.11

tblVehicleEF	LHD2	0.03	0.02
tblVehicleEF	LHD2	1.3200e-004	1.2900e-004
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tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.4000e-004	4.1400e-004
tblVehicleEF	LHD2	0.10	0.12
tblVehicleEF	LHD2	0.03	0.11
tblVehicleEF	LHD2	0.04	0.02
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tblVehicleEF	LHD2	2.5020e-003	3.6460e-003
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tblVehicleEF	LHD2	0.45	0.56
tblVehicleEF	LHD2	0.77	0.37
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tblVehicleEF	LHD2	666.89	658.82
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tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.19	0.59
tblVehicleEF	LHD2	0.22	0.10
tblVehicleEF	LHD2	9.8100e-004	1.5680e-003
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tblVehicleEF	LHD2	8.7600e-003	0.02
tblVehicleEF	LHD2	3.5900e-004	8.3000e-005

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tblVehicleEF	LHD2	2.7150e-003	2.7420e-003
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tblVehicleEF	LHD2	0.02	0.03
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tblVehicleEF	LHD2	6.7700e-004	8.1500e-004
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tblVehicleEF	LHD2	1.6100e-003	1.9570e-003
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tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	6.7700e-004	8.1500e-004
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tblVehicleEF	LHD2	0.03	0.11
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tblVehicleEF	LHD2	2.6330e-003	4.0640e-003
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tblVehicleEF	LHD2	20.75	5.38
tblVehicleEF	LHD2	0.06	0.09
tblVehicleEF	LHD2	0.21	0.63
tblVehicleEF	LHD2	0.23	0.11
tblVehicleEF	LHD2	9.8100e-004	1.5680e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.7600e-003	0.02
tblVehicleEF	LHD2	3.5900e-004	8.3000e-005
tblVehicleEF	LHD2	9.3900e-004	1.5000e-003
tblVehicleEF	LHD2	2.7150e-003	2.7420e-003
tblVehicleEF	LHD2	8.3590e-003	0.02
tblVehicleEF	LHD2	3.3000e-004	7.7000e-005
tblVehicleEF	LHD2	2.4900e-004	3.0800e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	1.5600e-004	1.9300e-004
tblVehicleEF	LHD2	0.09	0.11
tblVehicleEF	LHD2	0.03	0.13
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	1.3200e-004	1.2900e-004
tblVehicleEF	LHD2	6.4770e-003	6.3420e-003
tblVehicleEF	LHD2	2.2200e-004	5.3000e-005
tblVehicleEF	LHD2	2.4900e-004	3.0800e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02

tblVehicleEF	LHD2	1.5600e-004	1.9300e-004
tblVehicleEF	LHD2	0.10	0.12
tblVehicleEF	LHD2	0.03	0.13
tblVehicleEF	LHD2	0.04	0.02
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tblVehicleEF	MCY	0.15	0.24
tblVehicleEF	MCY	18.22	18.20
tblVehicleEF	MCY	10.30	9.15
tblVehicleEF	MCY	179.23	217.41
tblVehicleEF	MCY	43.15	59.15
tblVehicleEF	MCY	1.15	1.15
tblVehicleEF	MCY	0.31	0.27
tblVehicleEF	MCY	2.3650e-003	2.3630e-003
tblVehicleEF	MCY	3.1050e-003	2.7270e-003
tblVehicleEF	MCY	2.2060e-003	2.2040e-003
tblVehicleEF	MCY	2.9020e-003	2.5480e-003
tblVehicleEF	MCY	1.51	1.51
tblVehicleEF	MCY	0.83	0.83
tblVehicleEF	MCY	0.70	0.70
tblVehicleEF	MCY	2.33	2.33
tblVehicleEF	MCY	0.26	1.39
tblVehicleEF	MCY	2.09	1.85
tblVehicleEF	MCY	2.1600e-003	2.1510e-003
tblVehicleEF	MCY	6.6100e-004	5.8500e-004
tblVehicleEF	MCY	1.51	1.51
tblVehicleEF	MCY	0.83	0.83
tblVehicleEF	MCY	0.70	0.70

tblVehicleEF	MCY	2.91	2.91
tblVehicleEF	MCY	0.26	1.39
tblVehicleEF	MCY	2.27	2.01
tblVehicleEF	MCY	0.49	0.34
tblVehicleEF	MCY	0.13	0.21
tblVehicleEF	MCY	18.42	18.40
tblVehicleEF	MCY	9.08	8.04
tblVehicleEF	MCY	179.23	217.59
tblVehicleEF	MCY	43.15	56.49
tblVehicleEF	MCY	1.00	1.00
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.3650e-003	2.3630e-003
tblVehicleEF	MCY	3.1050e-003	2.7270e-003
tblVehicleEF	MCY	2.2060e-003	2.2040e-003
tblVehicleEF	MCY	2.9020e-003	2.5480e-003
tblVehicleEF	MCY	3.87	3.87
tblVehicleEF	MCY	1.34	1.35
tblVehicleEF	MCY	1.80	1.80
tblVehicleEF	MCY	2.29	2.29
tblVehicleEF	MCY	0.25	1.35
tblVehicleEF	MCY	1.78	1.58
tblVehicleEF	MCY	2.1620e-003	2.1530e-003
tblVehicleEF	MCY	6.3200e-004	5.5900e-004
tblVehicleEF	MCY	3.87	3.87
tblVehicleEF	MCY	1.34	1.35
tblVehicleEF	MCY	1.80	1.80
tblVehicleEF	MCY	2.86	2.86

tblVehicleEF	MCY	0.25	1.35
tblVehicleEF	MCY	1.94	1.72
tblVehicleEF	MCY	0.51	0.36
tblVehicleEF	MCY	0.18	0.29
tblVehicleEF	MCY	19.46	19.44
tblVehicleEF	MCY	12.03	10.74
tblVehicleEF	MCY	179.23	219.68
tblVehicleEF	MCY	43.15	62.83
tblVehicleEF	MCY	1.25	1.25
tblVehicleEF	MCY	0.34	0.29
tblVehicleEF	MCY	2.3650e-003	2.3630e-003
tblVehicleEF	MCY	3.1050e-003	2.7270e-003
tblVehicleEF	MCY	2.2060e-003	2.2040e-003
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tblVehicleEF	MCY	0.42	0.42
tblVehicleEF	MCY	0.82	0.82
tblVehicleEF	MCY	0.20	0.20
tblVehicleEF	MCY	2.41	2.41
tblVehicleEF	MCY	0.31	1.67
tblVehicleEF	MCY	2.46	2.19
tblVehicleEF	MCY	2.1830e-003	2.1740e-003
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tblVehicleEF	MCY	0.42	0.42
tblVehicleEF	MCY	0.82	0.82
tblVehicleEF	MCY	0.20	0.20
tblVehicleEF	MCY	3.02	3.01
tblVehicleEF	MCY	0.31	1.67

tblVehicleEF	MCY	2.68	2.39
tblVehicleEF	MDV	5.0280e-003	2.0260e-003
tblVehicleEF	MDV	6.9270e-003	0.04
tblVehicleEF	MDV	0.65	0.60
tblVehicleEF	MDV	1.42	2.19
tblVehicleEF	MDV	356.48	301.56
tblVehicleEF	MDV	77.10	60.81
tblVehicleEF	MDV	0.06	0.04
tblVehicleEF	MDV	0.11	0.18
tblVehicleEF	MDV	1.2140e-003	9.4300e-004
tblVehicleEF	MDV	1.7640e-003	1.1630e-003
tblVehicleEF	MDV	1.1180e-003	8.6900e-004
tblVehicleEF	MDV	1.6220e-003	1.0700e-003
tblVehicleEF	MDV	0.09	0.10
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.07	0.09
tblVehicleEF	MDV	0.01	7.9330e-003
tblVehicleEF	MDV	0.08	0.40
tblVehicleEF	MDV	0.09	0.19
tblVehicleEF	MDV	3.5650e-003	2.9800e-003
tblVehicleEF	MDV	7.9500e-004	6.0200e-004
tblVehicleEF	MDV	0.09	0.10
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.07	0.09
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.08	0.40
tblVehicleEF	MDV	0.10	0.20

tblVehicleEF	MDV	5.7580e-003	2.3440e-003
tblVehicleEF	MDV	5.7450e-003	0.03
tblVehicleEF	MDV	0.81	0.74
tblVehicleEF	MDV	1.20	1.82
tblVehicleEF	MDV	389.59	319.93
tblVehicleEF	MDV	77.10	60.13
tblVehicleEF	MDV	0.06	0.04
tblVehicleEF	MDV	0.10	0.17
tblVehicleEF	MDV	1.2140e-003	9.4300e-004
tblVehicleEF	MDV	1.7640e-003	1.1630e-003
tblVehicleEF	MDV	1.1180e-003	8.6900e-004
tblVehicleEF	MDV	1.6220e-003	1.0700e-003
tblVehicleEF	MDV	0.21	0.25
tblVehicleEF	MDV	0.18	0.15
tblVehicleEF	MDV	0.14	0.17
tblVehicleEF	MDV	0.01	9.0380e-003
tblVehicleEF	MDV	0.07	0.38
tblVehicleEF	MDV	0.08	0.15
tblVehicleEF	MDV	3.8980e-003	3.1620e-003
tblVehicleEF	MDV	7.9100e-004	5.9500e-004
tblVehicleEF	MDV	0.21	0.25
tblVehicleEF	MDV	0.18	0.15
tblVehicleEF	MDV	0.14	0.17
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.07	0.38
tblVehicleEF	MDV	0.08	0.17
tblVehicleEF	MDV	4.7340e-003	1.8840e-003

tblVehicleEF	MDV	8.0820e-003	0.05
tblVehicleEF	MDV	0.61	0.56
tblVehicleEF	MDV	1.71	2.67
tblVehicleEF	MDV	344.61	294.99
tblVehicleEF	MDV	77.10	61.66
tblVehicleEF	MDV	0.07	0.04
tblVehicleEF	MDV	0.12	0.20
tblVehicleEF	MDV	1.2140e-003	9.4300e-004
tblVehicleEF	MDV	1.7640e-003	1.1630e-003
tblVehicleEF	MDV	1.1180e-003	8.6900e-004
tblVehicleEF	MDV	1.6220e-003	1.0700e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.01	7.4860e-003
tblVehicleEF	MDV	0.09	0.47
tblVehicleEF	MDV	0.11	0.22
tblVehicleEF	MDV	3.4460e-003	2.9150e-003
tblVehicleEF	MDV	8.0000e-004	6.1000e-004
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.15	0.13
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.09	0.47
tblVehicleEF	MDV	0.12	0.24
tblVehicleEF	MH	7.3410e-003	4.8240e-003
tblVehicleEF	MH	0.02	0.02

tblVehicleEF	MH	0.38	0.29
tblVehicleEF	MH	3.51	1.48
tblVehicleEF	MH	1,179.93	1,305.16
tblVehicleEF	MH	55.83	14.11
tblVehicleEF	MH	0.86	1.24
tblVehicleEF	MH	0.60	0.23
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.5600e-004	1.9400e-004
tblVehicleEF	MH	3.2250e-003	3.3190e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8700e-004	1.7800e-004
tblVehicleEF	MH	0.58	0.44
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.18	0.14
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	4.3760e-003	0.30
tblVehicleEF	MH	0.21	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.1900e-004	1.4000e-004
tblVehicleEF	MH	0.58	0.44
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.18	0.14
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	4.3760e-003	0.30
tblVehicleEF	MH	0.23	0.07
tblVehicleEF	MH	7.5280e-003	4.9090e-003

tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.39	0.29
tblVehicleEF	MH	3.18	1.34
tblVehicleEF	MH	1,179.93	1,305.17
tblVehicleEF	MH	55.83	13.88
tblVehicleEF	MH	0.80	1.17
tblVehicleEF	MH	0.57	0.22
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.5600e-004	1.9400e-004
tblVehicleEF	MH	3.2250e-003	3.3190e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8700e-004	1.7800e-004
tblVehicleEF	MH	1.38	1.04
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.35	0.27
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	4.3440e-003	0.30
tblVehicleEF	MH	0.20	0.06
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.1400e-004	1.3700e-004
tblVehicleEF	MH	1.38	1.04
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.35	0.27
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	4.3440e-003	0.30
tblVehicleEF	MH	0.21	0.07

tblVehicleEF	MH	7.1340e-003	4.7280e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.37	0.28
tblVehicleEF	MH	3.87	1.63
tblVehicleEF	MH	1,179.93	1,305.15
tblVehicleEF	MH	55.83	14.37
tblVehicleEF	MH	0.88	1.26
tblVehicleEF	MH	0.64	0.25
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.5600e-004	1.9400e-004
tblVehicleEF	MH	3.2250e-003	3.3190e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8700e-004	1.7800e-004
tblVehicleEF	MH	0.21	0.16
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.10	0.08
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	4.7590e-003	0.33
tblVehicleEF	MH	0.22	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.2500e-004	1.4200e-004
tblVehicleEF	MH	0.21	0.16
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.10	0.08
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	4.7590e-003	0.33

tblVehicleEF	MH	0.25	0.08
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tblVehicleEF	MHD	5.1000e-005	1.5300e-004
tblVehicleEF	MHD	3.0030e-003	8.3580e-003
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tblVehicleEF	MHD	5.7900e-004	2.7400e-004
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tblVehicleEF	MHD	2.8800e-004	1.3500e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	7.9930e-003	0.05
tblVehicleEF	MHD	0.14	0.03
tblVehicleEF	MHD	1.7120e-003	8.2500e-004

tblVehicleEF	MHD	0.01	9.3380e-003
tblVehicleEF	MHD	4.1000e-004	5.2000e-005
tblVehicleEF	MHD	5.7900e-004	2.7400e-004
tblVehicleEF	MHD	0.02	9.6370e-003
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	2.8800e-004	1.3500e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	7.9930e-003	0.05
tblVehicleEF	MHD	0.15	0.03
tblVehicleEF	MHD	0.02	2.6470e-003
tblVehicleEF	MHD	2.5620e-003	9.6800e-004
tblVehicleEF	MHD	0.03	5.3160e-003
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tblVehicleEF	MHD	0.24	0.16
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tblVehicleEF	MHD	0.49	0.45
tblVehicleEF	MHD	1.02	1.60
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tblVehicleEF	MHD	4.3000e-005	1.3400e-004
tblVehicleEF	MHD	3.0030e-003	8.3580e-003
tblVehicleEF	MHD	5.1500e-004	7.0000e-005
tblVehicleEF	MHD	4.1000e-005	1.2800e-004
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tblVehicleEF	MHD	4.7400e-004	6.4000e-005

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tblVehicleEF	MHD	7.9130e-003	0.05
tblVehicleEF	MHD	0.13	0.02
tblVehicleEF	MHD	1.8130e-003	8.1600e-004
tblVehicleEF	MHD	0.01	9.3380e-003
tblVehicleEF	MHD	4.0800e-004	5.1000e-005
tblVehicleEF	MHD	1.3600e-003	6.4500e-004
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	5.7300e-004	2.7000e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	7.9130e-003	0.05
tblVehicleEF	MHD	0.14	0.03
tblVehicleEF	MHD	0.02	2.9150e-003
tblVehicleEF	MHD	2.5200e-003	9.3800e-004
tblVehicleEF	MHD	0.03	5.9220e-003
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tblVehicleEF	MHD	0.24	0.16
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tblVehicleEF	MHD	0.45	0.50

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tblVehicleEF	MHD	6.2000e-005	1.8000e-004
tblVehicleEF	MHD	3.0030e-003	8.3580e-003
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tblVehicleEF	MHD	4.7400e-004	6.4000e-005
tblVehicleEF	MHD	2.1100e-004	9.9000e-005
tblVehicleEF	MHD	0.02	9.5680e-003
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	1.3300e-004	6.2000e-005
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	8.9260e-003	0.05
tblVehicleEF	MHD	0.14	0.03
tblVehicleEF	MHD	1.5740e-003	8.3600e-004
tblVehicleEF	MHD	0.01	9.3380e-003
tblVehicleEF	MHD	4.1400e-004	5.2000e-005
tblVehicleEF	MHD	2.1100e-004	9.9000e-005
tblVehicleEF	MHD	0.02	9.5680e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	1.3300e-004	6.2000e-005
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	8.9260e-003	0.05
tblVehicleEF	MHD	0.16	0.03
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tblVehicleEF	OBUS	3.6360e-003	1.9520e-003

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tblVehicleEF	OBUS	4.72	1.36
tblVehicleEF	OBUS	4.8000e-005	2.6100e-004
tblVehicleEF	OBUS	2.9060e-003	9.3820e-003
tblVehicleEF	OBUS	8.6900e-004	1.2000e-004
tblVehicleEF	OBUS	4.6000e-005	2.5000e-004
tblVehicleEF	OBUS	2.7600e-003	8.9620e-003
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tblVehicleEF	OBUS	1.5860e-003	1.4070e-003
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tblVehicleEF	OBUS	0.02	0.18
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tblVehicleEF	OBUS	0.02	0.18
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tblVehicleEF	OBUS	0.01	7.5720e-003
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tblVehicleEF	OBUS	4.0000e-005	2.3200e-004
tblVehicleEF	OBUS	2.9060e-003	9.3820e-003
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tblVehicleEF	OBUS	3.7340e-003	3.2900e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.08

tblVehicleEF	OBUS	1.0490e-003	9.2400e-004
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tblVehicleEF	OBUS	0.01	0.01
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tblVehicleEF	OBUS	0.04	0.07
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tblVehicleEF	OBUS	0.05	0.08
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tblVehicleEF	SBUS	3.7900e-004	1.8000e-005
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tblVehicleEF	SBUS	4.9470e-003	0.02
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tblVehicleEF	SBUS	2.7610e-003	2.8110e-003
tblVehicleEF	SBUS	4.7220e-003	0.02
tblVehicleEF	SBUS	3.7900e-004	1.8000e-005
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tblVehicleEF	SBUS	5.9680e-003	0.01
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tblVehicleEF	SBUS	1,167.08	284.65
tblVehicleEF	SBUS	1,105.32	919.77
tblVehicleEF	SBUS	23.82	1.48
tblVehicleEF	SBUS	4.13	2.13
tblVehicleEF	SBUS	1.38	2.24
tblVehicleEF	SBUS	16.96	1.63

tblVehicleEF	SBUS	1.0740e-003	1.3270e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	4.9470e-003	0.02
tblVehicleEF	SBUS	4.1200e-004	2.0000e-005
tblVehicleEF	SBUS	1.0270e-003	1.2700e-003
tblVehicleEF	SBUS	2.7610e-003	2.8110e-003
tblVehicleEF	SBUS	4.7220e-003	0.02
tblVehicleEF	SBUS	3.7900e-004	1.8000e-005
tblVehicleEF	SBUS	9.8900e-004	1.5500e-004
tblVehicleEF	SBUS	0.02	2.5120e-003
tblVehicleEF	SBUS	0.44	0.11
tblVehicleEF	SBUS	5.0800e-004	8.0000e-005
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	8.5910e-003	0.02
tblVehicleEF	SBUS	0.17	0.01
tblVehicleEF	SBUS	0.01	2.6980e-003
tblVehicleEF	SBUS	0.01	8.7550e-003
tblVehicleEF	SBUS	2.9700e-004	1.5000e-005
tblVehicleEF	SBUS	9.8900e-004	1.5500e-004
tblVehicleEF	SBUS	0.02	2.5120e-003
tblVehicleEF	SBUS	0.63	0.15
tblVehicleEF	SBUS	5.0800e-004	8.0000e-005
tblVehicleEF	SBUS	0.07	0.05
tblVehicleEF	SBUS	8.5910e-003	0.02
tblVehicleEF	SBUS	0.18	0.01
tblVehicleEF	UBUS	0.72	1.89
tblVehicleEF	UBUS	0.06	0.05

tblVehicleEF	UBUS	3.92	13.88
tblVehicleEF	UBUS	8.69	3.39
tblVehicleEF	UBUS	1,790.75	1,467.43
tblVehicleEF	UBUS	146.64	32.98
tblVehicleEF	UBUS	2.28	0.32
tblVehicleEF	UBUS	11.97	0.35
tblVehicleEF	UBUS	0.49	0.11
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.04	2.6450e-003
tblVehicleEF	UBUS	1.4640e-003	4.4000e-004
tblVehicleEF	UBUS	0.21	0.05
tblVehicleEF	UBUS	3.0000e-003	3.7370e-003
tblVehicleEF	UBUS	0.04	2.4940e-003
tblVehicleEF	UBUS	1.3470e-003	4.0500e-004
tblVehicleEF	UBUS	6.0860e-003	2.8280e-003
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	2.7610e-003	1.2900e-003
tblVehicleEF	UBUS	0.14	0.03
tblVehicleEF	UBUS	0.01	0.14
tblVehicleEF	UBUS	0.82	0.19
tblVehicleEF	UBUS	0.01	7.4950e-003
tblVehicleEF	UBUS	1.6270e-003	3.2600e-004
tblVehicleEF	UBUS	6.0860e-003	2.8280e-003
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	2.7610e-003	1.2900e-003
tblVehicleEF	UBUS	0.87	1.93
tblVehicleEF	UBUS	0.01	0.14

tblVehicleEF	UBUS	0.89	0.21
tblVehicleEF	UBUS	0.72	1.89
tblVehicleEF	UBUS	0.05	0.04
tblVehicleEF	UBUS	3.93	13.88
tblVehicleEF	UBUS	7.04	2.75
tblVehicleEF	UBUS	1,790.75	1,467.44
tblVehicleEF	UBUS	146.64	31.90
tblVehicleEF	UBUS	2.16	0.31
tblVehicleEF	UBUS	11.88	0.33
tblVehicleEF	UBUS	0.49	0.11
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.04	2.6450e-003
tblVehicleEF	UBUS	1.4640e-003	4.4000e-004
tblVehicleEF	UBUS	0.21	0.05
tblVehicleEF	UBUS	3.0000e-003	3.7370e-003
tblVehicleEF	UBUS	0.04	2.4940e-003
tblVehicleEF	UBUS	1.3470e-003	4.0500e-004
tblVehicleEF	UBUS	0.01	6.8100e-003
tblVehicleEF	UBUS	0.08	0.03
tblVehicleEF	UBUS	5.3930e-003	2.7060e-003
tblVehicleEF	UBUS	0.14	0.03
tblVehicleEF	UBUS	0.01	0.13
tblVehicleEF	UBUS	0.72	0.17
tblVehicleEF	UBUS	0.01	7.4950e-003
tblVehicleEF	UBUS	1.5980e-003	3.1600e-004
tblVehicleEF	UBUS	0.01	6.8100e-003
tblVehicleEF	UBUS	0.08	0.03

tblVehicleEF	UBUS	5.3930e-003	2.7060e-003
tblVehicleEF	UBUS	0.87	1.93
tblVehicleEF	UBUS	0.01	0.13
tblVehicleEF	UBUS	0.79	0.18
tblVehicleEF	UBUS	0.72	1.89
tblVehicleEF	UBUS	0.07	0.05
tblVehicleEF	UBUS	3.90	13.87
tblVehicleEF	UBUS	10.53	4.09
tblVehicleEF	UBUS	1,790.75	1,467.42
tblVehicleEF	UBUS	146.64	34.18
tblVehicleEF	UBUS	2.34	0.33
tblVehicleEF	UBUS	12.07	0.38
tblVehicleEF	UBUS	0.49	0.11
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.04	2.6450e-003
tblVehicleEF	UBUS	1.4640e-003	4.4000e-004
tblVehicleEF	UBUS	0.21	0.05
tblVehicleEF	UBUS	3.0000e-003	3.7370e-003
tblVehicleEF	UBUS	0.04	2.4940e-003
tblVehicleEF	UBUS	1.3470e-003	4.0500e-004
tblVehicleEF	UBUS	2.3130e-003	9.8700e-004
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	1.4800e-003	6.1500e-004
tblVehicleEF	UBUS	0.14	0.03
tblVehicleEF	UBUS	0.01	0.17
tblVehicleEF	UBUS	0.92	0.21
tblVehicleEF	UBUS	0.01	7.4950e-003

tblVehicleEF	UBUS	1.6590e-003	3.3800e-004
tblVehicleEF	UBUS	2.3130e-003	9.8700e-004
tblVehicleEF	UBUS	0.06	0.02
tblVehicleEF	UBUS	1.4800e-003	6.1500e-004
tblVehicleEF	UBUS	0.87	1.93
tblVehicleEF	UBUS	0.01	0.17
tblVehicleEF	UBUS	1.00	0.23
tblVehicleTrips	CC_TL	7.30	7.89
tblVehicleTrips	CC_TL	7.30	7.88
tblVehicleTrips	CC_TL	7.30	7.89
tblVehicleTrips	CC_TTP	48.00	100.00
tblVehicleTrips	CC_TTP	28.00	100.00
tblVehicleTrips	CC_TTP	64.40	100.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00

tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	7.50	0.00
tblVehicleTrips	HO_TL	7.50	0.00
tblVehicleTrips	HO_TTP	35.70	0.00
tblVehicleTrips	HO_TTP	35.70	0.00
tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HS_TTP	17.40	0.00
tblVehicleTrips	HS_TTP	17.40	0.00
tblVehicleTrips	HW_TL	10.80	11.67
tblVehicleTrips	HW_TL	10.80	11.67
tblVehicleTrips	HW_TTP	46.90	100.00
tblVehicleTrips	HW_TTP	46.90	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	79.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	6.39	7.02
tblVehicleTrips	ST_TR	2.46	2.36

tblVehicleTrips	ST_TR	2.49	2.20
tblVehicleTrips	ST_TR	9.91	10.08
tblVehicleTrips	ST_TR	42.04	23.63
tblVehicleTrips	SU_TR	5.86	6.44
tblVehicleTrips	SU_TR	1.05	1.01
tblVehicleTrips	SU_TR	0.73	0.64
tblVehicleTrips	SU_TR	8.62	8.65
tblVehicleTrips	SU_TR	20.43	11.48
tblVehicleTrips	WD_TR	6.65	7.31
tblVehicleTrips	WD_TR	11.03	10.59
tblVehicleTrips	WD_TR	6.83	6.02
tblVehicleTrips	WD_TR	9.52	11.40
tblVehicleTrips	WD_TR	44.32	24.91
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	2.34	0.00
tblWoodstoves	NumberCatalytic	488.00	0.00
tblWoodstoves	NumberNoncatalytic	2.34	0.00
tblWoodstoves	NumberNoncatalytic	488.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

'- Construction Modeled Separately

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	20.6645	0.7701	12.6789	4.6600e-003		0.1197	0.1197		0.1197	0.1197	0.0000	746.4057	746.4057	0.0333	0.0133	751.2055
Energy	0.2528	2.1781	1.0502	0.0138		0.1747	0.1747		0.1747	0.1747	0.0000	5,336.1696	5,336.1696	0.3701	0.1125	5,378.9560
Mobile	9.0026	20.3755	95.0013	0.3397	43.1155	0.2407	43.3562	11.5551	0.2261	11.7812	0.0000	31,534.3573	31,534.3573	1.0118	0.0000	31,559.6517
Waste						0.0000	0.0000		0.0000	0.0000	253.1033	0.0000	253.1033	14.9580	0.0000	627.0528
Water						0.0000	0.0000		0.0000	0.0000	114.9683	249.3999	364.3682	3.3290	0.2559	523.8466
Total	**29.9198**	**23.3237**	**108.7304**	**0.3582**	**43.1155**	**0.5351**	**43.6506**	**11.5551**	**0.5205**	**12.0756**	**368.0716**	**37,866.3326**	**38,234.4042**	**19.7022**	**0.3817**	**38,840.7126**

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	20.0744	0.1404	12.1272	6.4000e-004		0.0673	0.0673		0.0673	0.0673	0.0000	19.7717	19.7717	0.0188	0.0000	20.2406
Energy	0.1780	1.5338	0.7400	9.7100e-003		0.1230	0.1230		0.1230	0.1230	0.0000	821.9709	821.9709	-0.0731	0.0102	823.1836
Mobile	9.0026	20.3755	95.0013	0.3397	43.1155	0.2407	43.3562	11.5551	0.2261	11.7812	0.0000	31,534.3573	31,534.3573	1.0118	0.0000	31,559.6517
Waste						0.0000	0.0000		0.0000	0.0000	253.1033	0.0000	253.1033	14.9580	0.0000	627.0528
Water						0.0000	0.0000		0.0000	0.0000	91.9746	199.5200	291.4946	2.6632	0.2047	419.0773
Total	**29.2550**	**22.0497**	**107.8685**	**0.3501**	**43.1155**	**0.4310**	**43.5465**	**11.5551**	**0.4164**	**11.9715**	**345.0780**	**32,575.6199**	**32,920.6979**	**18.5787**	**0.2149**	**33,449.2060**

	ROG	**NOx**	**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	**2.22**	**5.46**	**0.79**	**2.26**	**0.00**	**19.45**	**0.24**	**0.00**	**20.00**	**0.86**	**6.25**	**13.97**	**13.90**	**5.70**	**43.70**	**13.88**

3.0 Construction Detail

'- Construction Modeled Separately

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.0026	20.3755	95.0013	0.3397	43.1155	0.2407	43.3562	11.5551	0.2261	11.7812	0.0000	31,534.3573	31,534.3573	1.0118	0.0000	31,559.6517
Unmitigated	9.0026	20.3755	95.0013	0.3397	43.1155	0.2407	43.3562	11.5551	0.2261	11.7812	0.0000	31,534.3573	31,534.3573	1.0118	0.0000	31,559.6517

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	211.99	203.58	186.76	880,094	880,094
General Office Building	2,702.57	602.27	257.75	5,896,899	5,896,899
Industrial Park	3,724.27	1,361.03	395.94	8,350,225	8,350,225
Single Family Housing	18,775.80	16,601.76	14246.55	75,689,521	75,689,521
Strip Mall	9,191.79	8,719.47	4236.12	24,171,457	24,171,457
Total	34,606.42	27,488.11	19,323.12	114,988,196	114,988,196

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
Apartments Mid Rise	11.67	0.00	0.00	100.00	0.00	0.00	100	0	0
General Office Building	0.00	7.89	0.00	0.00	100.00	0.00	100	0	0
Industrial Park	0.00	7.88	0.00	0.00	100.00	0.00	100	0	0
Single Family Housing	11.67	0.00	0.00	100.00	0.00	0.00	100	0	0
Strip Mall	0.00	7.89	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
General Office Building	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
Industrial Park	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
Single Family Housing	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539
Strip Mall	0.624147	0.046996	0.149531	0.104852	0.017592	0.004672	0.021098	0.020000	0.001685	0.001497	0.005527	0.001863	0.000539

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable 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	-939.6299	-939.6299	-0.1068	-0.0221	-948.8855
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,834.394 6	2,834.394 6	0.3222	0.0667	2,862.314 1
NaturalGas Mitigated	0.1780	1.5338	0.7400	9.7100e-003		0.1230	0.1230		0.1230	0.1230	0.0000	1,761.600 8	1,761.600 8	0.0338	0.0323	1,772.069 1
NaturalGas Unmitigated	0.2528	2.1781	1.0502	0.0138		0.1747	0.1747		0.1747	0.1747	0.0000	2,501.775 1	2,501.775 1	0.0480	0.0459	2,516.641 9

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					
Apartments Mid Rise	335995	1.8100e-003	0.0155	6.5900e-003	1.0000e-004		1.2500e-003	1.2500e-003		1.2500e-003	1.2500e-003	0.0000	17.9300	17.9300	3.4000e-004	3.3000e-004	18.0365
General Office Building	2.35294e+006	0.0127	0.1153	0.0969	6.9000e-004		8.7700e-003	8.7700e-003		8.7700e-003	8.7700e-003	0.0000	125.5621	125.5621	2.4100e-003	2.3000e-003	126.3082
Industrial Park	723821	3.9000e-003	0.0355	0.0298	2.1000e-004		2.7000e-003	2.7000e-003		2.7000e-003	2.7000e-003	0.0000	38.6258	38.6258	7.4000e-004	7.1000e-004	38.8554
Single Family Housing	4.04761e+007	0.2183	1.8651	0.7937	0.0119		0.1508	0.1508		0.1508	0.1508	0.0000	2,159.9612	2,159.9612	0.0414	0.0396	2,172.7968
Strip Mall	2.99259e+006	0.0161	0.1467	0.1232	8.8000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	159.6960	159.6960	3.0600e-003	2.9300e-003	160.6450
Total		**0.2528**	**2.1781**	**1.0502**	**0.0138**		**0.1747**	**0.1747**		**0.1747**	**0.1747**	**0.0000**	**2,501.7751**	**2,501.7751**	**0.0480**	**0.0459**	**2,516.6419**

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					
Apartments Mid Rise	256185	1.3800e-003	0.0118	5.0200e-003	8.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	13.6710	13.6710	2.6000e-004	2.5000e-004	13.7522
General Office Building	1.55442e+006	8.3800e-003	0.0762	0.0640	4.6000e-004		5.7900e-003	5.7900e-003		5.7900e-003	5.7900e-003	0.0000	82.9499	82.9499	1.5900e-003	1.5200e-003	83.4429
Industrial Park	531111	2.8600e-003	0.0260	0.0219	1.6000e-004		1.9800e-003	1.9800e-003		1.9800e-003	1.9800e-003	0.0000	28.3421	28.3421	5.4000e-004	5.2000e-004	28.5105
Single Family Housing	2.84556e+007	0.1534	1.3112	0.5580	8.3700e-003		0.1060	0.1060		0.1060	0.1060	0.0000	1,518.5001	1,518.5001	0.0291	0.0278	1,527.5238
Strip Mall	2.21382e+006	0.0119	0.1085	0.0912	6.5000e-004		8.2500e-003	8.2500e-003		8.2500e-003	8.2500e-003	0.0000	118.1376	118.1376	2.2600e-003	2.1700e-003	118.8397
Total		**0.1780**	**1.5337**	**0.7400**	**9.7200e-003**		**0.1230**	**0.1230**		**0.1230**	**0.1230**	**0.0000**	**1,761.6008**	**1,761.6008**	**0.0338**	**0.0323**	**1,772.0691**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	128969	14.9243	1.7000e-003	3.5000e-004	15.0713
General Office Building	2.12582e+006	246.0005	0.0280	5.7900e-003	248.4236
Industrial Park	5.15335e+006	596.3487	0.0678	0.0140	602.2229
Single Family Housing	1.43141e+007	1,656.4377	0.1883	0.0390	1,672.7540
Strip Mall	2.77119e+006	320.6835	0.0365	7.5400e-003	323.8423
Total		**2,834.3946**	**0.3222**	**0.0667**	**2,862.3141**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	-42824.1	-4.9556	-0.0006	-0.0001	-5.0044
General Office Building	-686826	-79.4799	-0.0090	-0.0019	-80.2628
Industrial Park	-1.66499e +006	-192.6732	-0.0219	-0.0045	-194.5711
Single Family Housing	-4.82307e +006	-558.1283	-0.0634	-0.0131	-563.6260
Strip Mall	-902113	-104.3929	-0.0119	-0.0025	-105.4212
Total		**-939.6299**	**-0.1068**	**-0.0221**	**-948.8855**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	20.0744	0.1404	12.1272	6.4000e-004		0.0673	0.0673		0.0673	0.0673	0.0000	19.7717	19.7717	0.0188	0.0000	20.2406
Unmitigated	20.6645	0.7701	12.6789	4.6600e-003		0.1197	0.1197		0.1197	0.1197	0.0000	746.4057	746.4057	0.0333	0.0133	751.2055

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	3.6739					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	16.5455					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0734	0.6269	0.2668	4.0000e-003		0.0507	0.0507		0.0507	0.0507	0.0000	726.0556	726.0556	0.0139	0.0133	730.3702
Landscaping	0.3718	0.1432	12.4121	6.6000e-004		0.0691	0.0691		0.0691	0.0691	0.0000	20.3501	20.3501	0.0194	0.0000	20.8353
Total	**20.6645**	**0.7701**	**12.6789**	**4.6600e-003**		**0.1197**	**0.1197**		**0.1197**	**0.1197**	**0.0000**	**746.4057**	**746.4057**	**0.0333**	**0.0133**	**751.2055**

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	3.1698					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	16.5455					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.3592	0.1404	12.1272	6.4000e-004		0.0673	0.0673		0.0673	0.0673	0.0000	19.7717	19.7717	0.0188	0.0000	20.2406
Total	**20.0744**	**0.1404**	**12.1272**	**6.4000e-004**		**0.0673**	**0.0673**		**0.0673**	**0.0673**	**0.0000**	**19.7717**	**19.7717**	**0.0188**	**0.0000**	**20.2406**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	291.4946	2.6632	0.2047	419.0773
Unmitigated	364.3682	3.3290	0.2559	523.8466

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.88947 / 1.19119	2.3341	0.0194	1.4900e-003	3.2635
General Office Building	45.3577 / 27.7999	55.7085	0.4652	0.0358	78.0167
Industrial Park	143.063 / 0	140.1966	1.4633	0.1122	210.2092
Single Family Housing	107.309 / 67.6511	132.5589	1.1007	0.0848	185.3440
Strip Mall	27.3328 / 16.7523	33.5702	0.2804	0.0216	47.0133
Total		**364.3683**	**3.3290**	**0.2559**	**523.8466**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.51157 / 0.952948	1.8673	0.0155	1.1900e-003	2.6108
General Office Building	36.2861 / 22.2399	44.5668	0.3722	0.0287	62.4133
Industrial Park	114.45 / 0	112.1573	1.1707	0.0897	168.1674
Single Family Housing	85.8469 / 54.1209	106.0472	0.8806	0.0678	148.2752
Strip Mall	21.8662 / 13.4019	26.8562	0.2243	0.0173	37.6106
Total		**291.4946**	**2.6632**	**0.2047**	**419.0773**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	253.1033	14.9580	0.0000	627.0528
Unmitigated	253.1033	14.9580	0.0000	627.0528

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	5.6	1.1368	0.0672	0.0000	2.8163
General Office Building	90.19	18.3078	1.0820	0.0000	45.3567
Industrial Park	291.51	59.1739	3.4971	0.0000	146.6008
Single Family Housing	712.15	144.5600	8.5433	0.0000	358.1413
Strip Mall	147.42	29.9249	1.7685	0.0000	74.1377
Total		**253.1033**	**14.9580**	**0.0000**	**627.0528**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	5.6	1.1368	0.0672	0.0000	2.8163
General Office Building	90.19	18.3078	1.0820	0.0000	45.3567
Industrial Park	291.51	59.1739	3.4971	0.0000	146.6008
Single Family Housing	712.15	144.5600	8.5433	0.0000	358.1413
Strip Mall	147.42	29.9249	1.7685	0.0000	74.1377
Total		**253.1033**	**14.9580**	**0.0000**	**627.0528**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Greenhouse Gas Appendix

D. Threshold Determination

ATTACHMENT A
Unincorporated Merced County Threshold Determination

	2020 GHG Target	2020 Population	2020 Employment	2020 Threshold
BAAQMD/SCAQMD[1]	295,530,000	44,135,923	20,194,661	4.6
SCAQMD[1]	295,530,000	44,135,923	17,064,489	4.8
Unincorporated Merced with Ag[2]	2,260,000	127,884	37,300	13.7
Unincorporated Merced with Ag[3]	2,260,000	121,800	37,300	14.2
	2030 GHG Target	**2030 Population**	**2030 Employment**	**2030 Threshold**
Unincorporated Merced[4]	1,657,333	166,600	95,600	6.3
Unincorporated Merced[5]	1,657,333	152,500	95,600	6.7

Emissions Target	2020	2030	2035	
	2,260,000	1,657,333	1,356,000	
Population	2000	2010	2020	2030
2030 General Plan	78,123	89,167	127,884	166,600

1 Source: SCAQMD, 2010. *Minutes for the GHG CEQA Significance Threshold Working Group # 15.* September 28.

2 Target from:
Source: Merced County 2012b. *Merced County General Plan Revised Draft Background Report.* November 30. Chapter 12 *Climate Change.*
Employment & Population from:
Source: Merced County 2012a. *2030 Merced County General Plan Draft PEIR.* November. Chapter 16 *Population and Housing.*

3 Target from: Merced County 2012b
Population From:
Source: Merced County 2012c. *Merced County General Plan Revised Draft Background Report.* November 30. Chapter 2 *Demographics and Economics*
Employment From: Merced County 2012a.

4 Target From: Merced County 2012b
Population & Employment from: Merced County 2012a

5 Target from: Merced County 2012b.
Population from: Merced County 2012c.
Employment From: Merced County 2012a.

APPENDIX F: NOISE REPORT AND APPENDIX

Environmental Noise and Vibration Assessment

Winton Community Plan

Merced County, California

BAC Job # 2011-017

Prepared For:

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Bollard Acoustical Consultants, Inc.

Dario Gotchet, Consultant

February 21, 2020

BOLLARD
Acoustical Consultants

Introduction

Winton is an unincorporated community located in Merced County, approximately 8 miles northwest of the City of Merced. The community's western boundary is defined by the Livingston Canal, and its southern edge is shared with the City of Atwater. The Burlington Northern Santa Fe (BNSF) railroad bisects the town, while State Highway 99 (SR 99) is located two miles to the south. Figure 1 shows the Winton Community Plan Area and land use designations.

The following section discusses the existing noise and vibration environment in the project vicinity and identifies potential impacts and mitigation measures related to development within the Winton Community Plan (project) area in Merced County, California. Specifically, this section analyzes potential noise and vibration impacts due to and upon development of mixed uses within the project area relative to applicable noise criteria and to the existing ambient noise environment.

Environmental Setting

Noise Fundamentals and Terminology

Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard, and thus are called sound. Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB. Another useful aspect of the decibel scale is that changes in levels (dB) correspond closely to human perception of relative loudness. Appendix A contains definitions of Acoustical Terminology. Figure 2 shows common noise levels associated with various sources.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by weighing the frequency response of a sound level meter by means of the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels in decibels.

Community noise is commonly described in terms of the "ambient" noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}) over a given time period (usually one hour). The L_{eq} is the foundation of the Day-Night Average Level noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The Day-Night Average Level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10 decibel weighting applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a

24-hour average, it tends to disguise short-term variations in the noise environment. L_{dn}-based noise standards are commonly used to assess noise impacts associated with traffic, railroad, and aircraft noise sources.

Noise Attenuation over Distance

Stationary "point" sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate of approximately 6+ dBA per doubling of distance from the source, depending upon environmental conditions (i.e., atmospheric conditions and noise barriers, either vegetative or manufactured, etc.). Widely distributed noises, such as a large industrial facility, spread over many acres or a street with moving vehicles (a "line" or "moving point" source), would typically attenuate at a lower rate, approximately 4 to 6 dBA per doubling distance from the source (also dependent upon environmental conditions) (Caltrans, 2013). Noise from large construction sites (with heavy equipment moving dirt and trucks entering and exiting the site daily) would have characteristics of both "point" and "line" sources, so attenuation would generally range between 4.5 and 7.5 dBA per doubling of distance. Atmospheric absorption of sound varies depending on temperature and relative humidity, as well as the frequency content of the noise source. In general, "average day" atmospheric conditions result in attenuation at a rate of approximately 1.5 dB per thousand feet of distance (SAE ARP 866A, 1975).

Vibration

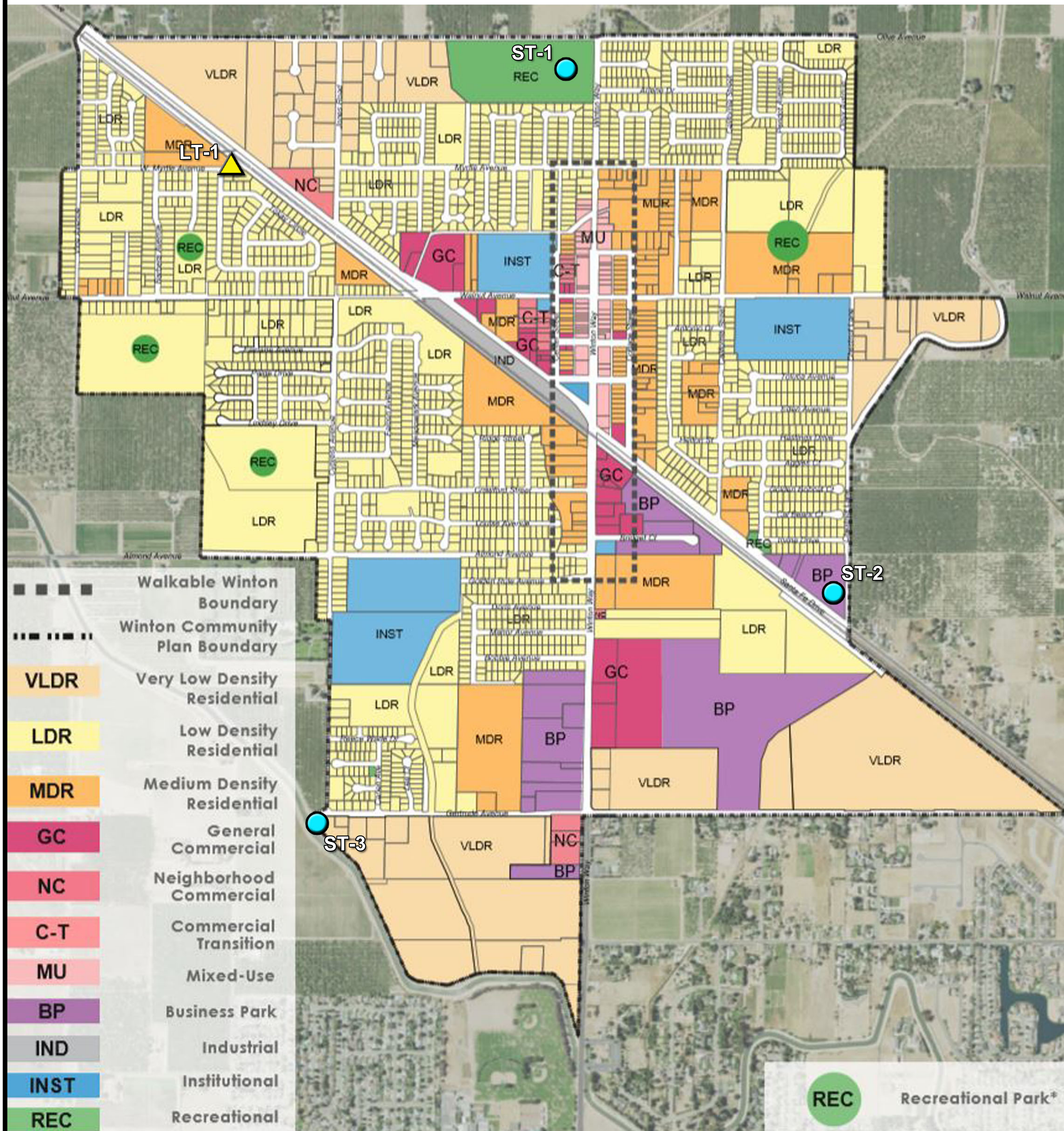
According to the Federal Transit Administration Noise and Vibration Impact Assessment Guidelines (FTA-VA-90-06), ground-borne vibration can be a serious concern for nearby neighbors of a transit system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard. In contrast to airborne noise, ground-borne vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of ground-borne vibration are trains, buses on rough roads, and construction activities such as blasting, pile-driving and operating heavy earth-moving equipment.

The effects of ground-borne vibration include detectable movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings. Building damage is not a factor for normal transportation projects, with the occasional exception of blasting and pile-driving during construction. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by only a small margin. A vibration level that causes annoyance will be well below the damage threshold for normal buildings.

Train wheels rolling on rails create vibration energy that is transmitted through the track support system into the ground, creating vibration waves that propagate through the various soil and rock strata to the foundations of nearby buildings. The vibration propagates from the foundation throughout the remainder of the building structure. The maximum vibration amplitudes of the floors and walls of a building often will be at the resonance frequencies of various components of the building.

The vibration of floors and walls may cause perceptible vibration, rattling of items such as windows or dishes on shelves, or a rumble noise. The rumble is the noise radiated from the motion of the room surfaces. In essence, the room surfaces act like a giant loudspeaker causing what is called ground-borne noise.

Ground-borne vibration is almost never annoying to people who are outdoors. Although the motion of the ground may be perceived, without the effects associated with the shaking of a building, the motion does not provoke the same adverse human reaction. In addition, the rumble noise that usually accompanies the building vibration is perceptible only inside buildings. Vibration can be described in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities (inches/second).



Legend

- Short-Term Noise Measurement Locations
- Long-Term Noise Measurement Location

N

Scale (feet)

0 500 1000

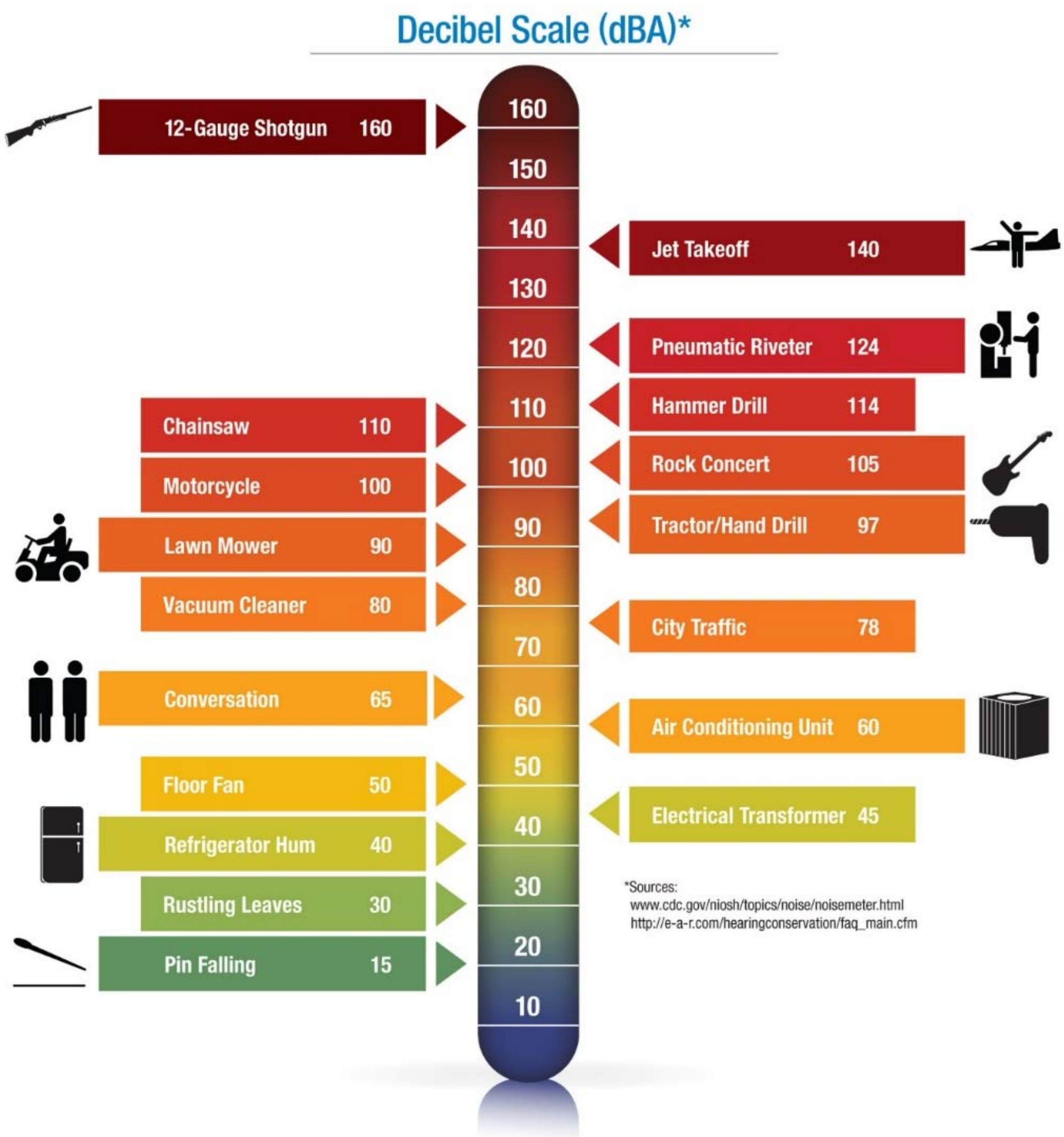
Winton Community Plan
Winton, California

Plan Area and Land Use Desginations

Figure 1

BOLLARD Acoustical

Figure 2
Typical A-Weighted Sound Levels of Common Noise Sources



Environmental Setting – Existing Ambient Noise and Vibration Environment within the Plan Area

The community of Winton is relatively small, with existing land uses consisting primarily of low- and medium-density residential uses surrounded by rural agricultural operations. There is a total of four schools – Winfield Elementary, Sybil N. Crookham Elementary, Frank Sparkes Elementary and Winton Middle. The community contains a limited amount of commercial uses, which mainly consist of local retail business and government-related services. The existing ambient noise environment within the Plan Area is defined primarily by local traffic and by railroad operations on the Burlington Northern Santa Fe (BNSF) railroad tracks.

Existing Traffic Noise Levels within the Plan Area Roadway Network

The FHWA Traffic Noise Model (FHWA-RD-77-108) was used to develop existing noise contours expressed in terms of L_{dn} for major roadways within the project study area. The FHWA Model predicts hourly L_{eq} values for free-flowing traffic conditions. Estimates of the hourly distribution of traffic for a typical 24-hour period were used to develop L_{dn} values from L_{eq} values.

Traffic data in the form of average traffic daily volumes (ADT's) for existing conditions were prepared by the project transportation consultant (KD Anderson & Associates, Inc.). Using these data and the FHWA Model, traffic noise levels were calculated. The traffic noise level at 100 feet from the roadway centerline and distances from the centerlines of selected roadways to the 60 dB, 65 dB, and 70 dB L_{dn} contours are summarized in Table 1.

In many cases, the actual distances to noise level contours may vary from the distances predicted by the FHWA Model. Factors such as roadway curvature, roadway grade, shielding from local topography or structures, elevated roadways, or elevated receivers may affect actual sound propagation.

It is also recognized that existing sensitive land uses within the project vicinity are located varying distances from the centerlines of the local roadway network. The 100-foot reference distance is utilized in this assessment to provide a reference position at which changes in existing and future traffic noise levels resulting from the project can be evaluated. Appendix B contains the FWHA Model inputs for existing conditions.

Table 1
Existing Traffic Noise Modeling Results

Roadway	Segment	L_{dn} at 100 Feet (dB)	Distance to Contour (ft) 70 dB L_{dn}	65 dB L_{dn}	60 dB L_{dn}
Winton Way	Fruitland Avenue to Gertrude Avenue	64	37	81	174
Winton Way	Gertrude Avenue to Santa Fe Drive	63	33	72	154
Winton Way	Santa Fe Drive to Olive Avenue	55	11	23	50
Santa Fe Drive	Winton Way to Shaffer Road	61	24	52	113
Walnut Avenue	Vine Avenue to Santa Fe Drive	59	18	39	84
Walnut Avenue	Santa Fe Drive to Winton Way	54	9	19	40
Walnut Avenue	Winton Way to California Avenue	53	8	16	35
Almond Avenue	Cypress Avenue to Winton Way	52	6	13	28
California Street	Santa Fe Drive to Walnut Avenue	52	7	14	31
Shaffer Road	Walnut Avenue to Santa Fe Drive	60	21	45	98
Shaffer Road	Santa Fe Drive to Gertrude Avenue	61	24	51	109

Source: FHWA-RD-77-108 with inputs prepared by KD Anderson & Associates, Inc.

Existing Overall Ambient Noise Environment

To generally quantify the existing ambient noise environment within the Plan Area, short-term (15-minute) ambient noise surveys were conducted at three locations on May 13, 2011. In addition, long-term (24-hour) noise monitoring was conducted at one location on May 12, 2011 near the railroad tracks to document noise railroad activity noise in the community. The locations of the short- and long-term noise measurement sites are shown on Figure 1. Photographs of the noise survey locations are provided in Appendix C.

Larson Davis Laboratories (LDL) Model 820 precision integrating sound level meters were used for the ambient noise level measurement surveys. The meters were calibrated before and after use with an LDL Model CA200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

The short- and long-term noise level measurement survey results are summarized in Table 2. The detailed results of the long-term ambient noise level survey are contained in Appendix D in tabular format and graphically in Appendix E.

Table 2
Summary of Ambient Noise Survey Measurement Results – May 2011

	Average Measured Sound Levels, dBA[2]		
	Average	Maximum	Day-Night
Site[1]	(L_{eq})	(L_{max})	(L_{dn})
ST-1: Winton community park	46	55	--
ST-2: Undeveloped land – future residential	47	63	--
ST-3: Farmland – corner of Gertrude Ave and Cypress Ave	46	63	--
LT-1: Near train tracks – W Myrtle Ave	69 D / 67 N	93 D / 89 N	77

[1] Noise survey locations are identified on Figure 1. Sites ST-1 through ST-3 were monitored on a short-term basis (15-minute samples). Site LT-1 was monitored continuously for a 24-hour period.
[2] Daytime hours: 7:00 a.m. to 10:00 p.m. Nighttime hours: 10:00 p.m. to 7:00 a.m.
Source: Bollard Acoustical Consultants, Inc. (2011)

As indicated in Table 2, measured short-term ambient noise levels during daytime hours within the Plan Area were very similar at sites ST-1 through ST-3. Table 2 also indicates, however, the long-term measurement site LT-1 registered very high average (L_{eq}), maximum (L_{max}), and day-night (L_{dn}) ambient noise levels. The elevated noise levels were due to the nearby train passbys. The ambient conditions in the Winton area are consistent with those typically found in smaller towns which contain major traffic or railroad corridors.

Existing Agricultural Noise Environment

There are active agricultural uses adjacent to the Plan Area, and agricultural operations will continue to occur on adjacent properties into the foreseeable future. As a result, agricultural-related equipment and processes contribute to the existing ambient noise environment in the Plan Area. Due to the wide array of equipment types and conditions under which that equipment is used in the agriculture industry, noise generated by agricultural processes varies substantially.

Maximum noise levels generated by farm-related tractors typically range from 77 to 85 dB at a distance of 50 feet from the tractor, depending on the horsepower of the tractor and the operating conditions.

Due to the seasonal nature of the agricultural industry, there are often extended periods of time when no noise is generated on properties which are actively being farmed, followed by short-term periods of intensive mechanical equipment usage and corresponding noise generation. Due to this high degree of variability of agricultural activities, it is not feasible to reliably quantify the noise generation of agricultural uses in terms of noise standards commonly utilized to assess impacts of other noise sources. However, these uses generate short-term periods of elevated noise during all hours of the day and night and possess the potential to generate adverse public reaction during intensive farm-related activities.

Existing Industrial and Other Noise Sources

A single 9-acre parcel is designated for industrial use within the Plan Area. This parcel includes a segment of the BNSF railroad right-of-way located south of Santa Fe Drive in between Walnut Avenue and Winton Way. Existing uses within this designation include a wireless telecommunications facility, commercial advertising (billboard), and truck loading and storage. Relative to the adjacent railroad operations, noise generated by these uses are considered inconsequential at the nearest existing noise-sensitive land uses.

Existing Railroad Noise Environment

The Burlington Northern Santa Fe railroad tracks bisect the Plan Area, as shown on Figure 1. Observations of railroad activity at the project site indicate that railroad warning horns are used as trains approach the at-grade crossings in the Plan Area.

To quantify railroad noise exposure at the project site, BAC conducted continuous noise level measurements at the location denoted site LT-1 on Figure 1 on May 12, 2011. The purposes of the noise level measurements were to determine the approximate number of daily railroad operations on these tracks, to quantify typical sound exposure levels (SEL) for railroad passages, and to calculate railroad noise levels in terms of day/night average levels (L_{dn}).

The results of the railroad noise measurements are shown in Table 3. The Table 3 data also shows the computed L_{dn} for the 24-hour period monitored. A detailed analysis of the single-event data indicated that there was an average of approximately 36 trains per day on these railroad tracks. In addition, the railroad operations were essentially randomly distributed throughout the day and nighttime hours (70% daytime/30% nighttime). The approximate distances to the 60 and 65 dB L_{dn} railroad noise contours were computed from the measurement results and those distances are shown in Table 3.

Table 3
Summary of BNSF Railroad Noise Survey Measurement Results – May 2011

				Distance to Existing L_{dn} Contours (feet)	
Date	# Trains per Day	Mean SEL @ 50 ft. (dB)	Computed L_{dn} @ 100 ft. (dB)	60 dB	65 dB
May 12, 2011	36	105	79	1,750	812

1 The noise level measurement site is shown on Figure 1. The site was approximately 50 feet from the center of railroad tracks.
2 The number of apparent railroad operations was estimated from an analysis of single-event noise level data collected over the monitoring period. Events were considered to be railroad operations if they met criteria for event duration, maximum level, and SEL.

Source: Bollard Acoustical Consultants, Inc. (2011)

Existing Ambient Vibration Environment

The only substantive source of vibration identified within the community Plan Area is the BNSF railroad. The nearest existing sensitive land uses (residences) are located approximately 75 feet from those railroad tracks. At that distance, railroad vibration levels were subjectively evaluated as being imperceptible to very faint by BAC staff.

Regulatory Setting: Criteria for Acceptable Noise and Vibration Exposure

Merced County General Plan

The Health and Safety Element of the 2030 Merced County General Plan Noise Element provides acceptable noise environment guidelines for a variety of land use types. The following noise level standards have been developed in order to quantify noise impacts in the County. Table 4 (GP Table HS-1), shows the noise level standards for noise-sensitive areas affected by traffic, railroad, or airport noise sources in the County. Table 5 (GP Table HS-2), shows the interior and exterior noise level standards for noise-sensitive areas affected by existing non-transportation noise sources in the county.

GOAL HS-7 Protect residents, employees, and visitors from the harmful and annoying effects of exposure to excessive noise.

Policy HS-7.1: Noise Standards for New Land Uses (RDR)

Require new development projects to meet the standards shown in Tables HS-1 & HS-2, at the property line of the proposed use, through either project design or other noise mitigation techniques.

Table 4
Noise Standards for New Uses Affected by Traffic, Railroad, and Airport Noise

New Land Use	Sensitive[1] Outdoor Area - L_{dn}	Sensitive Interior[2] Area - L_{dn}	Notes
All Residential	65	45	3
Transient Lodging	65	45	3,4
Hospitals & Nursing Homes	65	45	3,4,5
Theaters & Auditoriums	----	35	4
Churches, Meeting Halls,	65	40	4
Schools, Libraries, etc.	65	40	4
Office Buildings	65	45	4
Commercial Buildings	----	50	4
Playgrounds, Parks, etc.	70	----	
Industry	65	50	4

[1] Sensitive Outdoor Areas include primary outdoor activity areas associated with any given land use at which noise-sensitivity exists and the location at which the County's exterior noise level standards are applied.

[2] Sensitive Interior Areas includes any interior area associated with any given land use at which noise-sensitivity exists and the location at which the County's interior noise level standards are applied. Examples of sensitive interior spaces include, but are not limited to, all habitable rooms of residential and transient lodging facilities, hospital rooms, classrooms, library interiors, offices, worship spaces, theaters. Interior noise level standards are applied within noise-sensitive areas of the various land uses with windows and doors in the closed positions.

[3] Railroad warning horn usage shall not be included in the computation of Ldn.

[4] Only the interior noise level standard shall apply if there are no sensitive exterior spaces proposed for these uses.

[5] Since hospitals are often noise-generating uses, the exterior noise level standards are applicable only to clearly identified areas designated for outdoor relaxation by either hospital staff or patients.

Table 5
Non-Transportation Noise Standards – Median (L_{50})/Maximum (L_{max})[1]

Outdoor Area[2]			Interior[3]	
Receiving Land Use	**Daytime**	**Nighttime**	**Day or Night**	**Notes**
All Residential	55 / 75	50 / 70	35 / 55	
Transient Lodging	55 / 75	---	35 / 55	4
Hospitals & Nursing Homes	55 / 75	---	35 / 55	5,6
Theaters & Auditoriums	---	---	30 / 50	6
Churches, Meeting Halls, Schools, Libraries, etc.	55 / 75	---	35 / 60	6
Office Buildings	60 / 75	---	45 / 65	6
Commercial Buildings	---	---	45 / 65	6
Playgrounds, Parks, etc.	65 / 75	---	---	6
Industry	60 / 80	---	50 70	6

[1] These standards shall be reduced by 5 dB for sounds consisting primarily of speech or music, and for recurring impulsive sounds. If the existing ambient noise level exceeds the standards in this table, then the noise level standards shall be increased at 5 dB increments to encompass the ambient.
[2] Sensitive Outdoor Areas include primary outdoor activity areas associated with any given land use at which noise-sensitivity exists and the location at which the County's exterior noise level standards are applied.
[3] Sensitive Interior Areas includes any interior area associated with any given land use at which noise-sensitivity exists and the location at which the County's interior noise level standards are applied. Examples of sensitive interior spaces include, but are not limited to, all habitable rooms of residential and transient lodging facilities, hospital rooms, classrooms, library interiors, offices, worship spaces, theaters. Interior noise level standards are applied within noise-sensitive areas of the various land uses with windows and doors in the closed positions.
[4] Outdoor activity areas of transient lodging facilities are not commonly used during nighttime hours.
[5] Since hospitals are often noise-generating uses, the exterior noise level standards are applicable only to clearly identified areas designated for outdoor relaxation by either hospital staff or patients.
[6] The outdoor activity areas of these uses (if any), are not typically used during nighttime hours.
[7] Where median (L_{50}) noise level data is not available for a particular noise source, average (Leq) values may be substituted for the standards of this table provided the noise source in question operates for at least 30 minutes of an hour. If the source operates for at least 30 minutes. If the source operates less than 30 minutes the maximum noise level standards shown shall apply.

Policy HS-7.2: Acoustical and Groundborne Vibration Analysis Requirements (RDR)

Require development project applicants to prepare an acoustical analysis as part of the environmental review process when noise-sensitive land uses are proposed in areas exposed to existing or projected exterior noise levels exceeding the levels shown in Table HS-1 & HS-2. Require an analysis of groundborne vibration for proposed residential and other sensitive projects (including but not limited to hospitals and schools) located within 1,000 feet of a rail line with at least 30 operations per day or an existing industrial groundborne vibration source. The acoustical and groundborne vibration analysis shall:

a) Be the responsibility of the applicant;

b) Be prepared by qualified persons experienced in the fields of environmental noise and groundborne vibration assessment and architectural acoustics;

c) Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions;

d) Estimate projected future (20 year) noise levels relative to the standards shown in Table HS-1 & HS-2 at the property line of the proposed use, and, as applicable, estimate project future groundborne vibration levels using a maximum vibration standard of 70 VdB;

e) Recommend appropriate mitigation to achieve compliance with the adopted policies and standards in this element, including setbacks from groundborne vibration sources causing adverse levels of vibration; and

f) Estimate interior and exterior noise, and groundborne vibration exposure after the prescribe mitigation measures have been implemented at the property line.

Policy HS-7.3: Existing Rural Sources (RDR)

Discourage new noise sensitive land uses in rural areas with authorized existing noise generating land uses.

Policy HS-7.4: New Noise or Groundborne Vibration Generating Uses (RDR)

Require new commercial and industrial uses to minimize encroachment on incompatible noise or groundborne vibration sensitive land uses. Also consider the potential for encroachment by residential and other noise or groundborne vibration sensitive land uses on adjacent lands that could significantly impact the viability of the commercial or industrial areas.

Policy HS-7.5: Noise Generating Activities (RDR)

Limit noise generating activities, such as construction, to hours of normal business operation.

Policy HS-7.6: Multi-Family Residential Noise Analysis (RDR)

Require noise analyses be prepared for proposed multi-family, town homes, mixed-use, condominiums, or other residential projects where floor ceiling assemblies or party walls shall be common to different owners/occupants to assure compliance with the State of California Noise Insulation Standards.

Policy HS-7.7: Noise or Vibration Impacted Residential Area Monitoring (RDR)

Consider any existing residential area “noise or vibration impacted” if the exposure to exterior noise exceeds the standards shown in Table HS-2 or if groundborne vibration levels exceed 70VdB. Identify and evaluate potential noise or groundborne vibration impacted areas and identify possible means to correct the identified noise/land use incompatibilities.

Policy HS-7.8: Project Design (RDR)

Require land use projects to comply with adopted noise and vibration standards through proper site and building design, such as building orientation, setbacks, natural barriers (e.g., earthen berms, vegetation), and building construction practices. Only consider the use of soundwalls after all design-related noise mitigation measures have been evaluated or integrated into the project or found infeasible.

Policy HS-7.9: Transportation Project Construction/Improvements (RDR)

Require transportation project proponents to prepare all acoustical analysis for all roadway and railway construction projects in accordance with Policy HS-7.2; additionally, rail projects shall require the preparation of a groundborne vibration analysis in accordance with Policy HS-7.2. Consider noise mitigation measures to reduce traffic and/or rail noise levels to comply with Table HS-1 standards if pre-project noise levels already exceed the noise standards of Table HS-1 and the increase is significant.

The County defines a significant increase as follows:

Pre-Project Noise Environment (L_{dn})	Significant Increase
Less than 60 dB	5+ dB
60-65 dB	3+ dB
Greater than 65 dB	1.5+ dB

Policy HS-7.10: Aircraft Noise (RDR)

Prohibit new noise-sensitive development within the projected future 60 dB L_{dn} noise contours of any public or private airports.

Policy HS-7.11: Train Whistle Noise (IGC)

Support improvements to at-grade crossings in urban areas in order to eliminate the need for train whistle blasts near or within communities.

Policy HS-7.12: New Project Noise Mitigation Requirements (RDR)

Require new projects to include appropriate noise mitigation measures to reduce noise levels in compliance with the Table HS-2 standards within sensitive areas. If a project includes the creation of new non-transportation noise sources, require the noise generation of those sources to be mitigated so they do not exceed the interior and exterior noise level standards of Table HS-2 at existing noise-sensitive areas in the project vicinity. However, if a noise-generating use is proposed adjacent to lands zoned for residential uses, then the noise generating use shall be responsible for mitigating its noise generation to a state of compliance with the standards shown in Table HS-2 at the property line of the generating use in anticipation of the future residential development.

Policy HS-7.13: Noise Exemptions (RDR)

Support the exemption of the following noise sources from the standards in this element:

a) Emergency warning devices and equipment operated in conjunction with emergency situations, such as sirens and generators which are activated during power outages. The routine testing of such warning devices and equipment shall also be exempt provided such testing occurs during daytime hours.

b) Activities at schools, parks, or playgrounds, provided such activities occur during daytime hours.

c) Activities associated with County-permitted temporary events and festivals.

Policy HS-7.14: Transportation Noise Mitigation Program (MPSP/SO) Adopt a countywide transportation noise mitigation program to reduce transportation noise levels at existing sensitive land uses.

Policy HS-7.15: New Project Groundborne Vibration Mitigation Requirements (RDR) For residential projects within 1,000 feet of a rail line with at least 30 operations per day, or an existing industrial or commercial groundborne vibration source, require new residential projects to include appropriate groundborne vibration mitigation measures to reduce groundborne vibration levels to less than 70 VdB within structures. However, if a groundborne vibration-generating use is proposed adjacent to lands zoned for residential uses, then the groundborne vibration-generating use shall be responsible for mitigating its groundborne vibration generation to a state of compliance with the 70 VdB standard at the property line of the generating use in anticipation of the future residential development.

Winton Community Plan

Chapter 7 (Noise) of the Winton Community Plan (draft) provides information and a policy framework to address existing noise conflicts and to minimize future noise conflicts within the Plan Area.

GOAL N-1 NOISE LEVELS
Avoid siting noise-generating uses and/or activities near noise-sensitive land uses.

Policy N-1.1 Commercial Site Design
Site design techniques shall be utilized to reduce effects of noise from new commercial operation and uses to protect residents from excessive noise.

Policy N-1.2 Residential Development Design
New residential development shall provide a noise study demonstrating that they have incorporated site design and noise attenuation measures to meet County standards.

Implementing Actions:

N-1: Work with Law Enforcement to enforce vehicle code regulations regarding excessive exhaust and engine noise.

N-2: Work with commercial owners and operators within Winton to develop operational strategies and practices that minimize excessive noise during late night and early morning hours.

N-3: A noise study shall be required with new residential development to verify that County noise standards will be achieved by using setbacks, barriers, construction techniques (for interior noise levels) and/or other noise attenuation measures.

Impacts and Mitigation Measures

Thresholds of Significance

The California Environmental Quality Act checklist for noise and vibration indicates a project would result in significant noise or vibration impacts if the following were to result from the project:

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 other applicable standards of other agencies?

   For this project, the noise level standards contained within the Merced County General Plan are utilized to assess noise impacts (Tables 4 and 5). In addition, General Plan Policy HS-7.9 defines ambient noise level increases of 1.5 to 5 dB as being significant (depending on pre-project noise exposure).

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

   Pursuant to Policy HS-7.15 of the Merced County General Plan, excessive groundborne vibration is defined as levels exceeding 70 VdB.

C. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

   The Plan Area is located approximately 1 mile west of the Merced County Castle Airport (public airport). As a result, the noise level criteria contained in Table 4 and General Plan Policy HS-7.10 are utilized to assess aircraft noise impacts.

Methodology

Traffic Noise Impact Assessment Methodology

In order to assess noise impacts due to project-related traffic increases on the local roadway network resulting from development within the Plan Area, traffic noise levels are predicted at a representative distance for both existing and future, project and no-project conditions. Noise impacts are identified at existing sensitive areas if the noise level increases which result from the project exceed the 1.5 to 5 dB significance threshold, as identified in the Merced County General Plan (Policy HS-7.9).

Traffic data were provided by KD Anderson & Associates, Inc., which prepared the traffic impact analysis for the Winton Community Plan (draft). To describe existing and projected noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The FHWA Model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The

FHWA Model was developed to predict hourly L_{eq} values for free-flowing traffic conditions. To predict traffic noise levels in terms of L_{dn}, it is necessary to adjust the input volume to account for the day/night distribution of traffic.

Tables 6 and 7 show the predicted increases in traffic noise levels on the local roadway network for existing and future (cumulative) conditions which would result from the project. These tables are provided in terms of L_{dn} at a standard distance of 100 feet from the centerlines of the roadways in the project vicinity. The data from Tables 6 and 7 was used to determine the project-related increase in noise which is anticipated to result from the increase in traffic volumes on the local roadways which would occur under development of the Winton Community Plan. Appendix B contains the FWHA Model inputs.

To assess traffic noise impacts at new proposed sensitive land uses, the noise contour distances shown in Table 8 for cumulative plus project conditions are used.

Table 6
Traffic Noise Modeling Results and Project-Related Traffic Noise Increases
Existing vs. Existing Plus Project Conditions

		Traffic Noise Level at 100 feet, dB L_{dn}			
Roadway	**Segment**	**E**	**E+P**	**Increase**	**Substantial Increase?**
Winton Way	Fruitland Avenue to Gertrude Avenue	63.6	65.2	1.6	No
Winton Way	Gertrude Avenue to Santa Fe Drive	62.8	65.3	2.5	No
Winton Way	Santa Fe Drive to Olive Avenue	55.5	57.0	1.5	No
Santa Fe Drive	Winton Way to Shaffer Road	60.8	62.4	1.6	No
Walnut Drive	Vine Avenue to Santa Fe Drive	58.8	60.5	1.7	No
Walnut Drive	Santa Fe Drive to Winton Way	54.1	55.8	1.7	No
Walnut Drive	Winton Way to California Avenue	53.2	55.7	2.5	No
Almond Avenue	Cypress Avenue to Winton Way	51.8	56.4	4.6	No
California Street	Santa Fe Drive to Walnut Avenue	52.3	52.9	0.6	No
Shaffer Road	Walnut Avenue to Santa Fe Drive	59.9	60.2	0.3	No
Shaffer Road	Santa Fe Drive to Gertrude Avenue	60.6	62.0	1.4	No

Sources: FHWA-RD-77-108 and KD Anderson & Associates, Inc.

Table 7
Traffic Noise Modeling Results and Project-Related Traffic Noise Increases
Cumulative vs. Cumulative Plus Project Conditions

Roadway	Segment	Traffic Noise Level at 100 feet, dB L_{dn}			Substantial Increase?
		C	C+P	Increase	
Winton Way	Fruitland Avenue to Gertrude Avenue	64.8	65.8	1.0	No
Winton Way	Gertrude Avenue to Santa Fe Drive	64.5	65.8	1.3	No
Winton Way	Santa Fe Drive to Olive Avenue	57.6	57.2	-0.4	No
Santa Fe Drive	Winton Way to Shaffer Road	63.0	62.7	-0.3	No
Walnut Drive	Vine Avenue to Santa Fe Drive	63.1	62.3	-0.8	No
Walnut Drive	Santa Fe Drive to Winton Way	55.2	57.9	2.7	No
Walnut Drive	Winton Way to California Avenue	56.7	57.6	0.9	No
Almond Avenue	Cypress Avenue to Winton Way	57.3	57.5	0.2	No
California Street	Santa Fe Drive to Walnut Avenue	53.4	53.0	-0.4	No
Shaffer Road	Walnut Avenue to Santa Fe Drive	64.3	62.9	-1.4	No
Shaffer Road	Santa Fe Drive to Gertrude Avenue	63.2	63.2	0.0	No

Sources: FHWA-RD-77-108 and KD Anderson & Associates, Inc.

Table 8
Distances to Cumulative Plus Project Noise Contours

Roadway	Segment	Distance from Roadway Centerline to Noise Contour (feet)		
		70 dB L_{dn}	65 dB L_{dn}	60 dB L_{dn}
Winton Way	Fruitland Avenue to Gertrude Avenue	52	113	243
Winton Way	Gertrude Avenue to Santa Fe Drive	52	113	243
Winton Way	Santa Fe Drive to Olive Avenue	14	30	65
Santa Fe Drive	Winton Way to Shaffer Road	33	71	152
Walnut Drive	Vine Avenue to Santa Fe Drive	31	66	142
Walnut Drive	Santa Fe Drive to Winton Way	16	33	72
Walnut Drive	Winton Way to California Avenue	15	32	69
Almond Avenue	Cypress Avenue to Winton Way	15	32	68
California Street	Santa Fe Drive to Walnut Avenue	7	16	34
Shaffer Road	Walnut Avenue to Santa Fe Drive	33	72	155
Shaffer Road	Santa Fe Drive to Gertrude Avenue	35	75	162

Sources: FHWA-RD-77-108 and KD Anderson & Associates, Inc.

Railroad Noise Impact Evaluation Methodology

Railroad noise impacts were evaluated by comparing calculated railroad noise contours in Table 3 with the applicable Merced County General Plan noise criteria. Specifically, where residential uses are proposed within the 65 dB L_{dn} railroad noise contour distance shown in Table 3, noise impacts were identified.

Construction Noise Impact Evaluation Methodology

During the construction phases of the project, noise from construction activities would add to the noise environment in the immediate project vicinity. Activities involved in construction would generate maximum noise levels, as indicated in Table 9, ranging from 70 to 95 dB at a distance of 50 feet. Pile driving activities would generate even higher noise levels.

Table 9
Typical Construction Equipment Reference Noise Levels

Equipment Description	Maximum Noise Level at 50 Feet, dBA
Auger drill rig	85
Air compressor	80
Backhoe	80
Ballast equalizer	82
Ballast tamper	83
Compactor	82
Concrete mixer	85
Concrete pump	82
Concrete vibrator	76
Crane, mobile	83
Dozer	85
Generator	82
Grader	85
Impact pile driver	95
Impact wrench	85
Jack hammer	88
Loader	80
Paver	85
Pneumatic tool	85
Pump	77
Rail saw	90
Saw	76
Scarifier	83
Scraper	85
Shovel	82
Spike driver	77
Tie cutter	84
Tie handler	80
Tie inserter	85
Tractor	84
Truck	84
Vibratory pile driver	95
Source: Federal Transit Administration, Noise and Vibration Impact Assessment Manual, Table 7-1 (2018)	

Project-Specific Impacts and Mitigation Measures

Impact 1: Increases in Existing Project-Generated Traffic Noise Levels with the Plan Area

With development of the Plan Area, traffic volumes on the local roadway network will increase. Those increases in daily traffic volumes will result in a corresponding increase in traffic noise levels at existing uses located along those roadways. Pursuant to Policy HS-7.9 of the Merced County General Plan, the criteria for determination of a substantial project-related increase in traffic noise levels is as follows:

- 5 dB increase where pre-project noise levels are below 60 dB L_{dn}.
- 3 dB increase where pre-project noise levels are between 60 to 65 dB L_{dn}.
- 1.5 dB increase where pre-project noise levels exceed 65 dB L_{dn}.

The results from the analysis of 11 roadway segments shown in Table 6 indicate that the project-related increases in traffic noise levels on the local roadway network (Existing Plus Project Conditions) would not exceed the standards of significance identified in General Plan Policy HS-7.9. As a result, noise impacts related to project-generated increases in traffic within the Plan Area (Existing Plus Project Conditions) are identified as being ***less than significant***.

Impact 2: Traffic and Railroad Noise Impacts at Sensitive Uses within the Plan Area

The future (Cumulative Plus Project Conditions) 65 dB L_{dn} contours for Plan Area roadways are provided in Table 8. The 65 dB L_{dn} railroad noise contours are presented in Table 3. Any proposed residential uses located within the 65 dB L_{dn} noise contours shown in Tables 3 or 8, or any other proposed noise-sensitive land uses located within the critical noise contours for that use, could be exposed to noise levels that exceed Merced County General Plan noise level criteria. The sensitive areas that could be exposed to noise levels above 65 dB L_{dn}, from either train or traffic noise, include:

- General Commercial, Neighborhood Commercial, Business Park, Very Low-Density Residential, Low-Density Residential, and Medium-Density Residential parcels adjacent to Winton Way from Fruitland Avenue to Olive Avenue;
- Industrial, General Commercial, Neighborhood Commercial, Commercial Transition, Business Park, Institutional, Recreational, Mixed-Use, Very Low-Density Residential, Low-Density Residential, and Medium-Density Residential parcels adjacent to Santa Fe Drive from Olive Avenue to Gertrude Avenue;
- Low-Density Residential and Medium-Density Residential parcels adjacent to Walnut Avenue from Vine Avenue to Santa Fe Drive;

- General Commercial, Commercial Transition, Mixed-Use, Institutional, Low-Density Residential, and Medium-Density Residential parcels adjacent to Walnut Avenue from Vine Avenue to California Avenue;
- Institutional and Low-Density Residential parcels adjacent to Almond Avenue from Cypress Avenue to Winton Way;
- Low-Density Residential and Medium-Density Residential parcels adjacent to California Avenue south of Walnut; and
- Very Low-Density Residential parcels east of Shaffer Road from Santa Fe Drive to Gertrude Avenue.

In some cases, such as California Street, the 65 dB L_{dn} traffic contour would be located within the road right-of-way. More specifically, the 65 dB L_{dn} contour for California Street is located at 16 feet of the roadway centerline, which would be within the travel lane or sidewalk. Therefore, noise levels outside of the right-of-way would be below 65 dB L_{dn} and would meet County standards.

Policy HS-7.2 of the Merced County General Plan requires development project applicants to prepare an acoustical analysis as part of the environmental review process when noise-sensitive land uses are proposed in areas exposed to existing or projected exterior noise levels exceeding General Plan noise level limits. Similarly, Policy N-1.2 of the Winton Community Plan states that new residential development shall provide a noise study demonstrating that they have incorporated site design and noise attenuation measures to meet County standards. These policies would ensure that new residential uses are designed to meet Merced County General Plan noise level standards. Therefore, the impact is identified as being ***less than significant***.

Impact 3: Construction Noise Impacts at Sensitive Uses within the Plan Area

Activities associated with construction within the Plan Area will result in elevated noise levels in the immediate area of the construction. Activities involved in construction will typically generate maximum noise levels ranging from 70 to 95 dB L_{max} at a distance of 50 feet, as indicated in Table 9. Although construction activities are temporary in nature and typically occur during normal daytime working hours, substantial short-term increases in ambient noise levels could result at existing noise-sensitive land uses during construction activities. As a result, noise impacts associated with project construction activities are identified as being **potentially significant**.

<u>Mitigation for Impact 3</u>

MM 3: To the maximum extent practical, the following measures should be incorporated into the project construction operations within the Winton Community Plan Area near noise-sensitive receptors:

- Project construction activities shall be limited to daytime hours unless conditions warrant that certain construction activities occur during evening or early morning hours (i.e., extreme heat).

- All noise-producing project equipment and vehicles using internal-combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications. Mobile or fixed “package” equipment (e.g., arc welders, air compressors) shall be equipped with shrouds and noise-control features that are readily available for that type of equipment.
- All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity.
- Electrically powered equipment shall be used instead of pneumatic or internal-combustion-powered equipment, where feasible.
- Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors.
- The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.
- No project-related public address or music system shall be audible at any adjacent receptor.

Significance of Impact 3 after Mitigation: ***Less than Significant***

Impact 4: Vibration Impacts at Sensitive Uses within the Plan Area

Policy HS-7.15 of the Merced County General Plan states that, for residential projects within 1,000 feet of a rail line with at least 30 operations per day, or an existing industrial or commercial groundborne vibration source, new residential projects are required to include appropriate groundborne vibration mitigation measures to reduce groundborne vibration levels to less than 70 VdB within structures. However, if a groundborne vibration-generating use is proposed adjacent to lands zoned for residential uses, then the groundborne vibration-generating use shall be responsible for mitigating its groundborne vibration generation to a state of compliance with the 70 VdB standard at the property line of the generating use in anticipation of the future residential development. Although there are locations within 100 feet of the BNSF tracks zoned for future residential and other sensitive land uses, Policy HS-7.15 ensures that adequate study and mitigation measures will be incorporated into the design of either new vibration-sensitive or vibration-generating uses to minimize vibration levels within sensitive areas. Therefore, this impact is identified as being ***less than significant***.

Impact 5: Industrial and Commercial Noise Impacts at Sensitive Uses within Plan Area

Noise-producing aspects of certain land uses developed within the Plan Area such as schools, industry, commercial loading docks, could generate elevated noise levels in the vicinity of existing or proposed sensitive land uses.

Noise sources associated with schools are commonly related to outdoor activities that occur at playgrounds and/or playing fields. The school sites within the Plan Area are surrounded primarily by existing residential development. The proposed project would increase the number of students at these schools, which could increase noise. The existing elementary and middle schools would need to be expanded, but within the existing sites. The types of noise at these schools would be related to outdoor play and daytime sports activities; such noise would occur intermittently during the daytime, when it would not be considered a nuisance. In addition, playground and daytime outdoor school activities are exempt from Merced County General Plan noise policies (Policy HS-7.13). The existing and schools do not have football stadiums, amphitheaters or other outdoor facilities with extensive lights and amplified sound. These types of facilities are more typical of high schools, and there are no existing or planned high schools in the Winton Community. For these reasons, noise impacts associated with schools are identified as being ***less than significant***.

The Plan Area is surrounded by orchards and agricultural fields – which can also be sources of noise generation. The proposed project designates residential land uses adjacent to active agricultural operations in several locations. However, the Merced County Right-to-Farm ordinance specifically states that residents moving into areas where there are existing agricultural activities, “should be prepared to accept inconvenience or discomfort from normal, necessary agricultural operations.” Further, the Merced County Confined Animal Ordinance states that new single-family residences, not a part of an existing animal confinement facility, are prohibited within 1,000 feet of an existing facility. Based on the above measures, noise impacts associated with agricultural operations are identified as being ***less than significant***.

As discussed previously, a single 9-acre parcel is designated for industrial use within the Plan Area. This parcel includes a segment of the BNSF railroad right-of-way located south of Santa Fe Drive in between Walnut Avenue and Winton Way. Although residential designations are located adjacent to this industrially zoned parcel, relative to the adjacent railroad operations, noise generated by uses on this parcel are considered to be inconsequential at those uses. However, General Commercial land uses (which could potentially have loading docks and delivery trucks) are located adjacent to residential designations. Business Professional and Neighborhood Commercial uses would be less likely to have loading docks but could have HVAC systems and other noise generating components. According to the Plan Area map, Business Professional and Neighborhood Commercial land uses are located adjacent to residential designations. The Mixed-Use designation allows a combination of residential and non-residential uses. Because noise associated with these types of uses have been frequently cited as potential sources of annoyance at sensitive uses, and because such noise from those uses could exceed applicable Merced County General Plan noise level standards, this impact is identified as being **potentially significant.**

Mitigation Impact 5

In order to satisfy the Merced County General Plan noise level criteria at sensitive uses adjacent to noise-producing land uses, the following noise mitigation measures are recommended for this project:

MM 5A: The County shall make a determination upon review of applications for new businesses operating within the General Commercial, Neighborhood Commercial, Commercial Transition, Mixed-Use, Business Park, or any other noise-producing land use as to whether or not the proposed use would potentially impact existing or proposed noise-sensitive land uses in the vicinity of the proposed use. Where the County estimates that a project may generate significant levels of on-site noise, a noise analysis should be required to ensure that appropriate noise mitigation is included in the project design to achieve satisfaction with applicable Merced County General Plan noise level standards contained in Table 5.

MM 5B: New businesses operating within the General Commercial, Neighborhood Commercial, Commercial Transition, Mixed-Use, Business Park or any other noise-producing land use that are adjacent to residential designations shall demonstrate that residential outdoor areas will be protected from noise by one or a combination of the following and/or equally effective measures:

i) Mechanical equipment associated with the above uses shall be shielded from view of adjacent residential uses by building parapets or located within mechanical equipment rooms.

AND/OR

ii) Commercial loading docks located within 300 feet of existing or proposed residential uses shall be positioned in areas shielded from view of those residences by intervening commercial buildings.

AND/OR

iii) Solid noise barriers shall be constructed at the boundary of the commercial uses of sufficient heights to intercept line of sight between heavy trucks and the affected area of the residential use.

AND/OR

iv) Truck deliveries shall be limited to daytime hours (7:00 a.m. to 10:00 p.m.).

AND/OR

v) Signs shall be posted prohibiting idling of delivery trucks to 10 minutes or less.

Significance of Impact 5 after Mitigation: ***Less than Significant***

Impact 6: Aircraft Noise Impacts at Sensitive Uses within the Plan Area

The Winton Community Plan Area is located approximately 1 mile west of the Merced County Castle Airport. Policy HS-7.10 of the Merced County General Plan prohibits new noise-sensitive development within the projected future 60 dB L_{dn} noise contours of any public or private airports. According to the 2035 Castle Airport Map Noise Contours map provided in the Castle Airport Master Plan, the Plan Area is located outside of the future (2035) 60 dB CNEL/L_{dn} airport noise contour. Because the Plan Area is located outside of the future 60 dB L_{dn} noise contour, it is expected that normal operations at the Castle Airport would not expose people residing or working within the Plan Area to excessive noise levels, and would not exceed appliable Merced County General Plan noise level standards of Table 4. Based on the information above, this impact is identified as being ***less than significant***.

Cumulative Impacts and Mitigation Measures

The primary factor for the cumulative noise impact analysis is the consideration of future traffic volumes. Non-transportation noise sources and construction noise impacts are typically project-specific and highly localized. Construction activities associated with anticipated development within the area would contribute to cumulative noise levels, but in a highly localized and transient manner.

Impact 7: Increases in Future (Cumulative) Project-Generated Traffic Noise Levels within the Plan Area

With development of the Plan Area, traffic volumes on the local roadway network will increase. Those increases in daily traffic volumes will result in a corresponding increase in traffic noise levels at existing uses located along those roadways. Pursuant to Policy HS-7.9 of the Merced County General Plan, the criteria for determination of a substantial project-related increase in traffic noise levels is as follows:

- 5 dB increase where pre-project noise levels are below 60 dB L_{dn}.
- 3 dB increase where pre-project noise levels are between 60 to 65 dB L_{dn}.
- 1.5 dB increase where pre-project noise levels exceed 65 dB L_{dn}.

The results from the analysis of 11 roadway segments shown in Table 7 indicate that the project-related increases in traffic noise levels on the local roadway network (Cumulative Plus Project Conditions) would not exceed the standards of significance identified in General Plan Policy HS-7.9. As a result, noise impacts related to project-generated increases in traffic within the Plan Area (Cumulative Plus Project Conditions) are identified as being ***less than significant***.

Appendix A
Acoustical Terminology

Acoustics The science of sound.

Ambient Noise The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.

Attenuation The reduction of an acoustic signal.

A-Weighting A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.

Decibel or dB Fundamental unit of sound. A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.

CNEL Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.

Frequency The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz.

IIC Impact Insulation Class (IIC): A single-number representation of a floor/ceiling partition’s impact generated noise insulation performance. The field-measured version of this number is the FIIC.

L_{dn} Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.

L_{eq} Equivalent or energy-averaged sound level.

L_{max} The highest root-mean-square (RMS) sound level measured over a given period of time.

Loudness A subjective term for the sensation of the magnitude of sound.

Masking The amount (or the process) by which the threshold of audibility is for one sound is raised by the presence of another (masking) sound.

Noise Unwanted sound.

Peak Noise The level corresponding to the highest (not RMS) sound pressure measured over a given period of time. This term is often confused with the “Maximum” level, which is the highest RMS level.

RT_{60} The time it takes reverberant sound to decay by 60 dB once the source has been removed.

STC Sound Transmission Class (STC): A single-number representation of a partition’s noise insulation performance. This number is based on laboratory-measured, 16-band (1/3-octave) transmission loss (TL) data of the subject partition. The field-measured version of this number is the FSTC.

Appendix B-1

FHWA-RD-77-108 Highway Traffic Noise Prediction Model
Data Input Sheet

Project #: 2011-017 Winton Community Plan
Description: Existing
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	Winton Way	Fruitland Ave to Gertrude Ave	13,634	80		20	2	1	40	100	
2	Winton Way	Gertrude to Santa Fe Dr	11,401	80		20	2	1	40	100	
3	Winton Way	Santa Fe Dr to Olive Ave	5,281	80		20	2	1	25	100	
4	Santa Fe Dr	Winton Way to Shaffer Road	9,738	80		20	2	1	35	100	
5	Walnut Ave	Vine Ave to Santa Fe Dr	6,251	80		20	2	1	35	100	
6	Walnut Ave	Santa Fe Dr to Winton Way	3,849	80		20	2	1	25	100	
7	Walnut Ave	Winton Way to California Ave	3,139	80		20	2	1	25	100	
8	Almond Ave	Cypress Ave to Winton Way	2,271	80		20	2	1	25	100	
9	California St	Santa Fe Dr to Walnut Ave	2,558	80		20	2	1	25	100	
10	Shaffer Rd	Walnut Ave to Santa Fe Dr	4,334	80		20	2	1	45	100	
11	Shaffer Rd	Santa Fe Dr to Gertrude Ave	9,313	80		20	2	1	35	100	

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Appendix B-2

FHWA-RD-77-108 Highway Traffic Noise Prediction Model
Data Input Sheet

Project #: 2011-017 Winton Community Plan
Description: Existing Plus Project
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	Winton Way	Fruitland Ave to Gertrude Ave	19,559	80		20	2	1	40	100	
2	Winton Way	Gertrude to Santa Fe Dr	20,211	80		20	2	1	40	100	
3	Winton Way	Santa Fe Dr to Olive Ave	7,536	80		20	2	1	25	100	
4	Santa Fe Dr	Winton Way to Shaffer Road	14,073	80		20	2	1	35	100	
5	Walnut Ave	Vine Ave to Santa Fe Dr	9,216	80		20	2	1	35	100	
6	Walnut Ave	Santa Fe Dr to Winton Way	5,664	80		20	2	1	25	100	
7	Walnut Ave	Winton Way to California Ave	5,504	80		20	2	1	25	100	
8	Almond Ave	Cypress Ave to Winton Way	6,541	80		20	2	1	25	100	
9	California St	Santa Fe Dr to Walnut Ave	2,888	80		20	2	1	25	100	
10	Shaffer Rd	Walnut Ave to Santa Fe Dr	4,669	80		20	2	1	45	100	
11	Shaffer Rd	Santa Fe Dr to Gertrude Ave	12,828	80		20	2	1	35	100	

Appendix B-3

FHWA-RD-77-108 Highway Traffic Noise Prediction Model
Data Input Sheet

Project #: 2011-017 Winton Community Plan
Description: Cumulative
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	Winton Way	Fruitland Ave to Gertrude Ave	18,060	80		20	2	1	40	100	
2	Winton Way	Gertrude to Santa Fe Dr	16,960	80		20	2	1	40	100	
3	Winton Way	Santa Fe Dr to Olive Ave	8,590	80		20	2	1	25	100	
4	Santa Fe Dr	Winton Way to Shaffer Road	16,220	80		20	2	1	35	100	
5	Walnut Ave	Vine Ave to Santa Fe Dr	16,520	80		20	2	1	35	100	
6	Walnut Ave	Santa Fe Dr to Winton Way	4,970	80		20	2	1	25	100	
7	Walnut Ave	Winton Way to California Ave	7,050	80		20	2	1	25	100	
8	Almond Ave	Cypress Ave to Winton Way	8,010	80		20	2	1	25	100	
9	California St	Santa Fe Dr to Walnut Ave	3,300	80		20	2	1	25	100	
10	Shaffer Rd	Walnut Ave to Santa Fe Dr	12,070	80		20	2	1	45	100	
11	Shaffer Rd	Santa Fe Dr to Gertrude Ave	17,040	80		20	2	1	35	100	

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Appendix B-4

FHWA-RD-77-108 Highway Traffic Noise Prediction Model
Data Input Sheet

Project #: 2011-017 Winton Community Plan
Description: Cumulative Plus Project
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway Name	Segment Description	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	Winton Way	Fruitland Ave to Gertrude Ave	22,620	80		20	2	1	40	100	
2	Winton Way	Gertrude to Santa Fe Dr	22,580	80		20	2	1	40	100	
3	Winton Way	Santa Fe Dr to Olive Ave	7,850	80		20	2	1	25	100	
4	Santa Fe Dr	Winton Way to Shaffer Road	15,280	80		20	2	1	35	100	
5	Walnut Ave	Vine Ave to Santa Fe Dr	13,870	80		20	2	1	35	100	
6	Walnut Ave	Santa Fe Dr to Winton Way	9,140	80		20	2	1	25	100	
7	Walnut Ave	Winton Way to California Ave	8,640	80		20	2	1	25	100	
8	Almond Ave	Cypress Ave to Winton Way	8,400	80		20	2	1	25	100	
9	California St	Santa Fe Dr to Walnut Ave	2,990	80		20	2	1	25	100	
10	Shaffer Rd	Walnut Ave to Santa Fe Dr	8,670	80		20	2	1	45	100	
11	Shaffer Rd	Santa Fe Dr to Gertrude Ave	16,850	80		20	2	1	35	100	

Appendix C-1
Photographs of Noise Survey Locations
Winton Community Plan – Winton, California

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Appendix C-2
Photographs of Noise Survey Locations
Winton Community Plan – Winton, California

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Appendix C-3
Photographs of Noise Survey Locations
Winton Community Plan – Winton, California

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Appendix C-4

Photographs of Noise Survey Locations

Winton Community Plan – Winton, California

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Appendix D
Ambient Noise Monitoring Results - Site LT-1
Winton Community Plan
Thursday, May 12, 2011

Hour	Leq	Lmax	Lmin	L02	L08	L25	L50	L90
12:00 AM	69	95	34	62	55	43	39	36
1:00 AM	48	66	34	59	51	42	38	36
2:00 AM	74	98	33	67	55	42	38	35
3:00 AM	71	92	33	67	55	43	39	36
4:00 AM	70	94	33	74	58	47	41	36
5:00 AM	74	98	35	86	64	60	54	42
6:00 AM	57	67	40	64	62	59	54	45
7:00 AM	71	94	41	82	63	60	55	45
8:00 AM	75	97	38	88	63	58	52	44
9:00 AM	78	96	39	90	65	58	53	44
10:00 AM	72	97	37	83	61	57	52	44
11:00 AM	69	92	38	74	61	57	52	44
12:00 PM	71	96	39	77	60	56	52	45
1:00 PM	71	95	39	66	60	57	52	45
2:00 PM	56	73	39	63	60	57	54	46
3:00 PM	71	92	40	84	61	57	53	45
4:00 PM	62	88	35	64	61	58	54	45
5:00 PM	71	94	41	67	62	60	56	48
6:00 PM	65	95	36	67	62	59	55	45
7:00 PM	62	92	37	64	61	58	53	43
8:00 PM	64	93	38	65	62	59	55	47
9:00 PM	72	96	40	83	62	58	52	45
10:00 PM	71	95	38	66	59	53	46	41
11:00 PM	72	94	40	85	58	48	44	41

Daytime	Leq	Lmax	Lmin	L02	L08	L25	L50	L90
Average	69	93	39	74	62	58	53	45
High	78	97	41	90	65	60	56	48
Low	56	73	33	63	60	56	52	43

Nighttime	Leq	Lmax	Lmin	L02	L08	L25	L50	L90
Average	67	89	35	70	57	49	44	39
High	74	98	40	86	64	60	54	45
Low	48	66	33	59	51	42	38	35

Ldn:	77	% Daytime Energy:	65%	% Nighttime Energy:	35%

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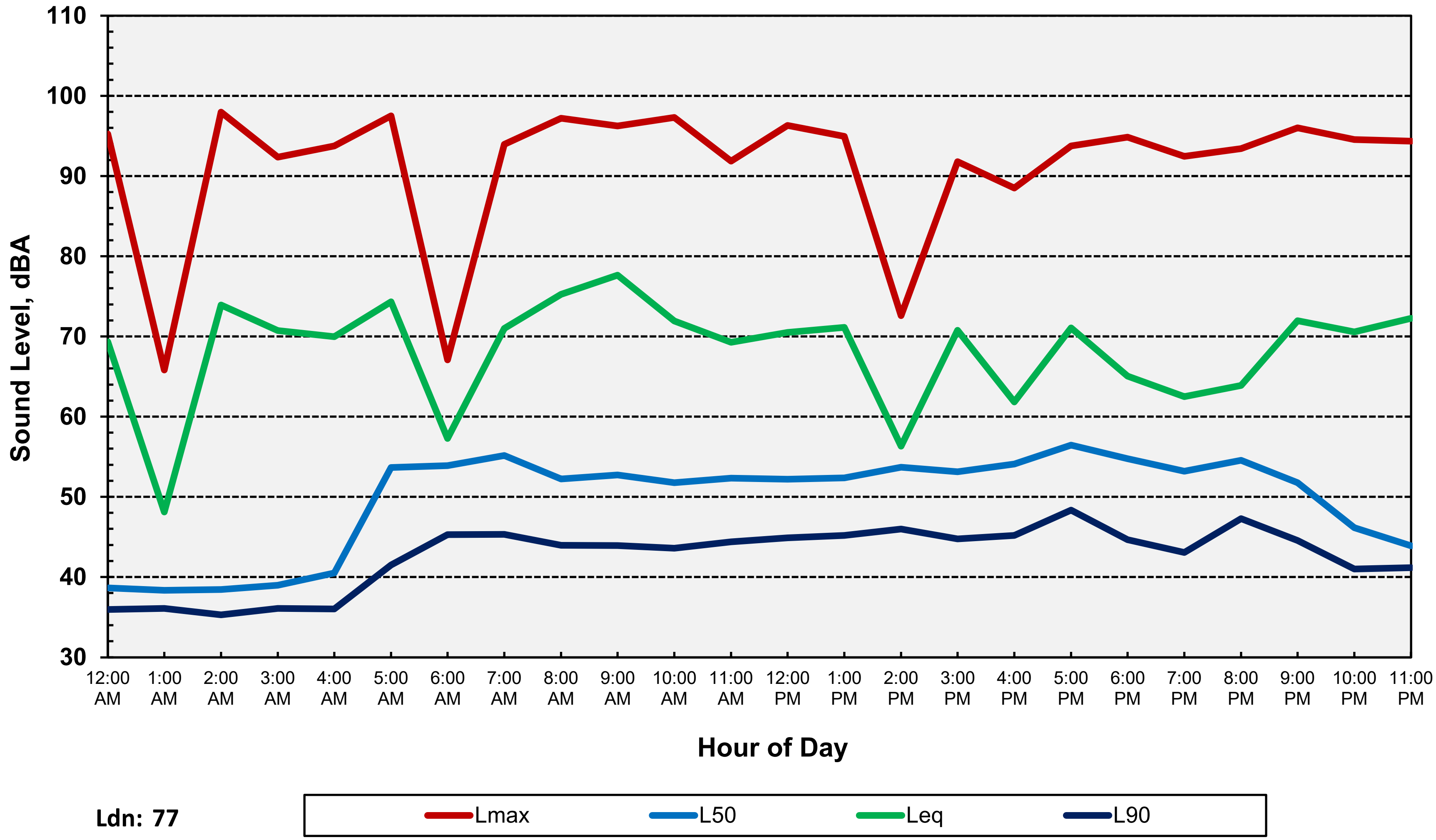
Appendix E
Ambient Noise Monitoring Results - Site LT-1
Winton Community Plan
Thursday, May 12, 2011



Ldn: 77

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APPENDIX G: TRAFFIC REPORT AND APPENDIX

TRANSPORTATION IMPACT ANALYSIS

FOR

WINTON COMMUNITY PLAN

Merced County, CA

Prepared For:

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September 30, 2020

3490-05

Winton CP.rpt

TRANSPORTATION IMPACT ANALYSIS FOR
WINTON COMMUNITY PLAN
Merced County, CA

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September 30, 2020

KDA

TRANSPORTATION IMPACT ANALYSIS FOR
WINTON COMMUNITY PLAN EIR
Merced County, CA

INTRODUCTION

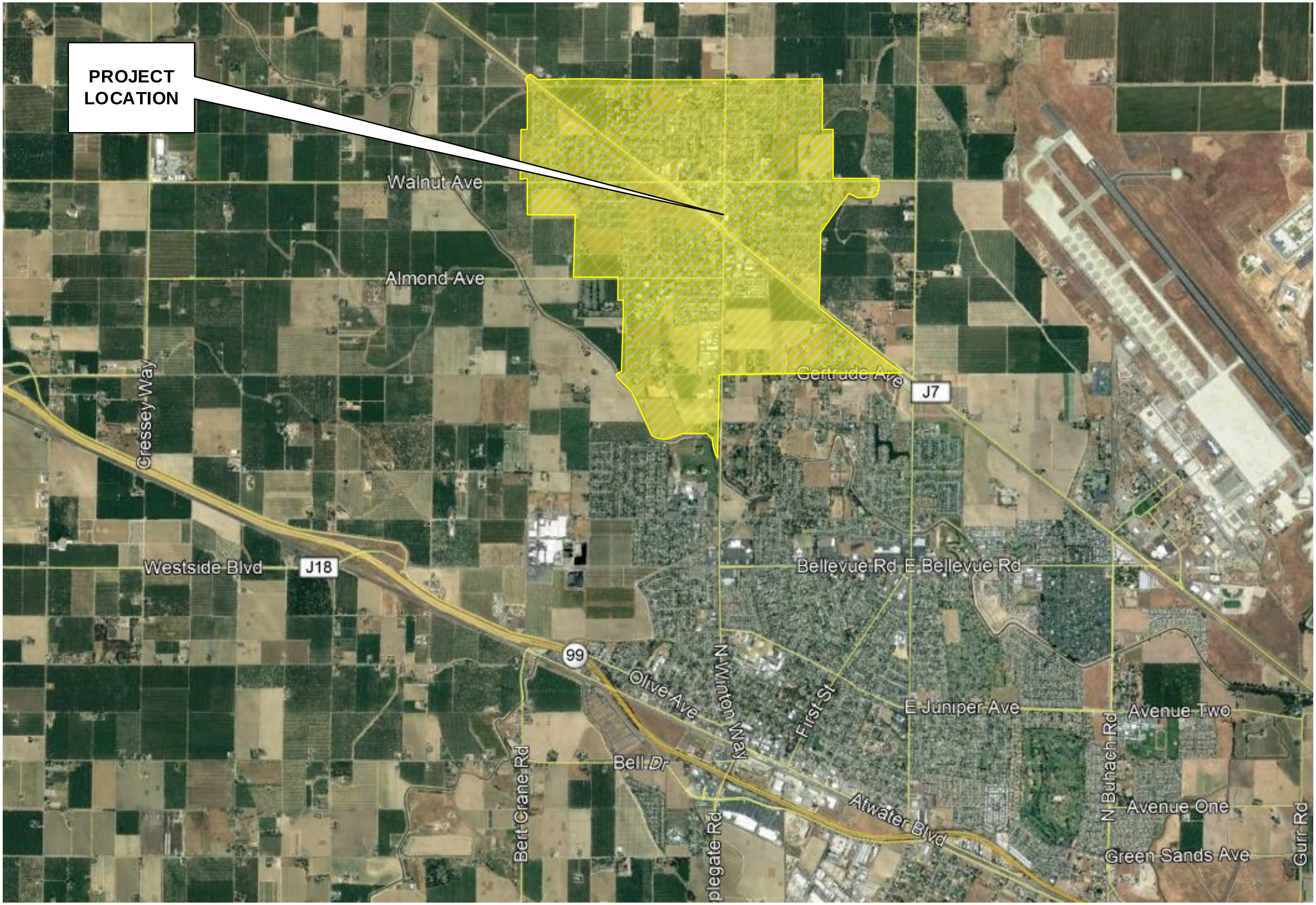
This report summarizes **KD Anderson & Associates, Inc.** analysis of the potential short term and long-term traffic conditions associated with development of the **Winton Community Plan (WCP)** in Merced County, California. The Winton community is located in central Merced County between the Cities of Livingston and Merced and north of the City of Atwater, as noted in Figure 1 (Vicinity map). The WCP boundaries are shown in Figure 2 (Community Plan Area).

Study Scope

Overview. The purpose of this analysis is to present an assessment of potential project specific and cumulative transportation impacts associated with the project and to suggest feasible measures for mitigating identified impacts. As mandated under the California Environmental Quality Act (CEQA), project impacts have been described based on regional Vehicle Miles Traveled (VMT). Project weekday VMT has been estimated using a "tour-based" approach using the regional modeling tool created for this purpose as required by SB 743. The project's impacts to alternative transportation modes, including pedestrian, bicycle and transit, as well as safety, have also been assessed.

The evaluation of traffic operating conditions contained herein based on Level of Service on study area roads is not a part of the CEQA transportation impact analysis and is presented for informational purposes only. Traffic operational analysis may be needed to support subsequent development of a local Bridge and Thoroughfare Program, to design improvements to the area circulation system or to consider consistency with the Merced County General Plan. With the implementation of SB 743, CEQA transportation impact analysis moved from a capacity-based Level of Service metric to analysis based on Vehicle Miles Traveled (VMT).

The traffic operational analysis includes evaluation of existing circulation conditions in the area based on current weekday peak hour and daily traffic conditions. The characteristics of future development enabled under the Winton Community Plan have been determined, including the estimated trip generation, the directional distribution, and assignment of the project area traffic. By superimposing project trips onto existing traffic volumes, the effects of project traffic on the operating conditions of key roads and intersections in the area of the project have been identified. This report also considers the effects of the project within the context of cumulative traffic conditions based on the forecasts created by the Year 2035 Merced County Association of Governments (MCAG) regional travel demand forecasting model.



VICINITY MAP

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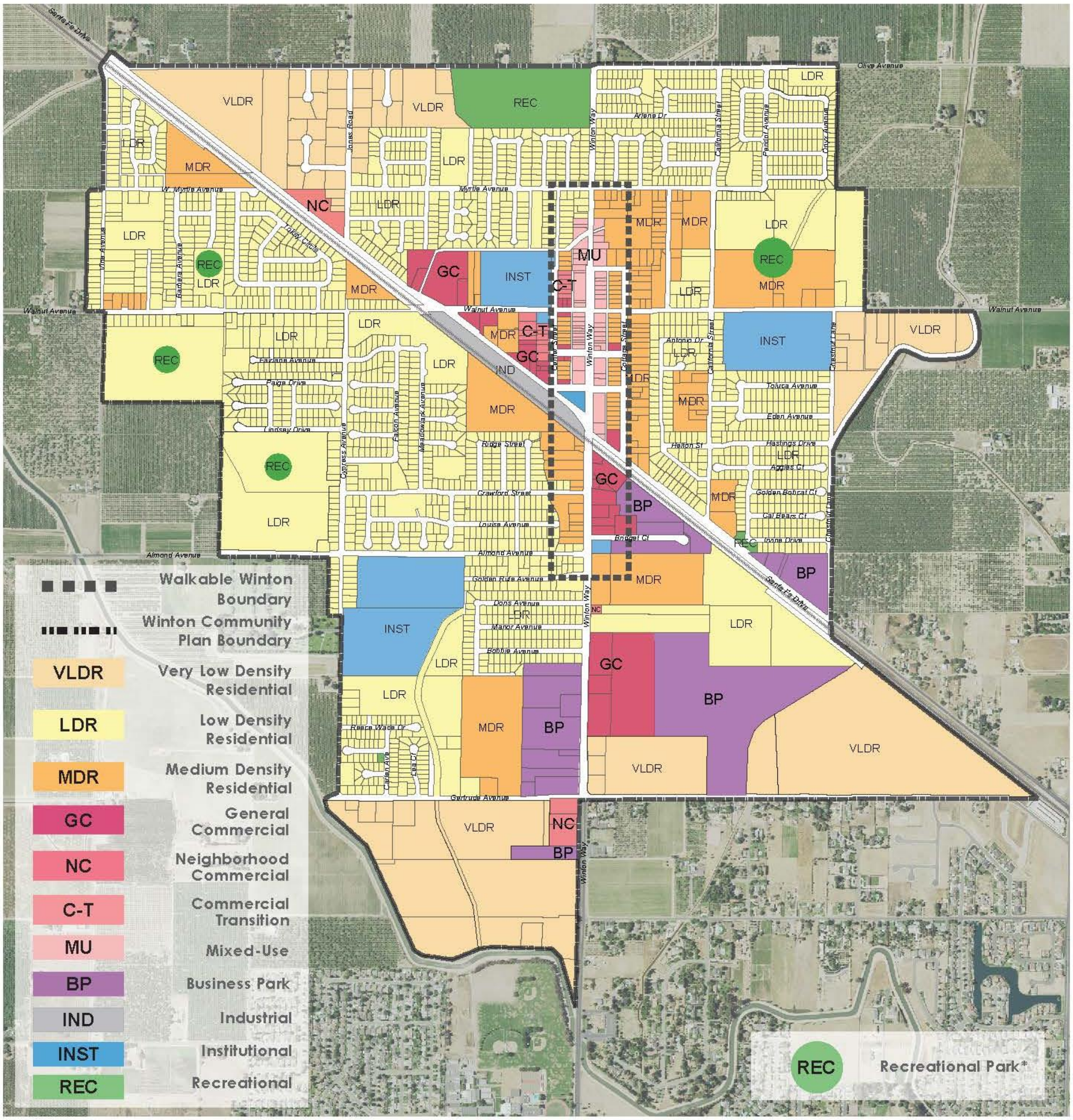
figure 1



*Circular symbol represents the general vicinity of a park that has not been specifically located.

FIGURE 4.1 LAND USE PLAN

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SITE PLAN

3490-05 RA 7/27/2020

figure 2

EXISTING CONDITIONS

This report section describes existing conditions on the circulation system in the Winton area in terms of facilities for motor vehicles, pedestrians, bicyclists and transit riders. Current traffic volumes have been identified and accompanying traffic operations on the roadways and intersections within the study area have been described in terms of operating Level of Service as described under the Merced County General Plan.

Existing Street System

Regional access to Winton is available through major roadways that link the community with state highway and with other Merced County cities. The text that follows describes these facilities as well as the local streets that complete the study area circulation system. Regional access routes include:

State Route 99. State Route 99 (SR 99) is a state highway that traverses Merced County from Stanislaus County on the north to Madera County on the south. In Merced County SR 99 is a controlled access freeway with four-six travel lanes. Access to SR 99 is limited to grade separated interchanges. The Winton Community Plan area is roughly 2½ miles north of SR 99 via Winton Way, five miles east of SR 99 via Walnut Avenue and five miles west of SR 99 via Buhach Road to the Atwater Merced Expressway interchange.

The volume of traffic on SR 99 varies along its length. Today the California Department of Transportation (Caltrans) reports that in 2018 SR 99 carried an *Average Annual Daily Traffic (AADT)* volume of 41,000 vehicles per day at Madera County line, 59,000 AADT between the City of Merced and Atwater and 74,500 AADT as the highway approaches the Stanislaus County line. Trucks comprise more than 20% of the daily traffic on SR 99 through Merced County.

State Route 59. State Route 59 (SR 59) is a state highway and the primary north-south transportation route through central Merced County. This route extends north from an interchange on SR 152 through the City of Merced to the Snelling area of Merced County. SR 59 is a two-lane conventional highway in the area north of SR 99 and is roughly 6 miles from Winton via Santa Fe Drive. Caltrans reports that SR 108 carried 12,000 to 14,000 AADT in the area of its intersection with Santa Fe Drive. Trucks comprise 6% of the daily traffic in this area.

Winton Way. Winton Way links the WCP area with Atwater and SR 99 to the south. Winton Way originates at the SR 99 / Applegate Road / Winton Way interchange and continues northly through Atwater and Winton to its northern terminus on Meadow Drive about two miles beyond the WCP area. Winton Way is not designated in the Merced County General Plan because the route falls within the City of Atwater and the WCP. The portion of Winton Way within the City of Atwater is designated a four-lane Urban Major Arterial. The WCP identifies Winton Way as a four lane Urban Minor Arterial south of Santa Fe Drive, and the posted speed limit is 40 mph. Daily traffic volumes in this area are reported later in this report, and trucks comprised 11% of the daily volume south of Santa Fe Drive. The roadway is a two-lane Urban Minor Arterial north of Santa Fe Drive, and the speed limits is 25 mph in that area.

Santa Fe Drive. Santa Fe Drive is an important route that runs generally north of and parallel to SR 99 along the BN&SF railroad from an intersection on SR 132 in Modesto into Merced County through Winton and across the Atwater Sphere of Influence to the intersection of SR 59 / Olive Avenue in western Merced. The WCP indicates that Santa Fe Drive is an Urban Minor Arterial north of Walnut Avenue and an Urban Principal Arterial east of Walnut Avenue. The Merced County General Plan designates the roadway a two-lane Minor Arterial west of Winton and a four lane Principal Arterial east of Winton. The roadway is a four lane Urban Major Arterial in the Atwater General Plan.

Today Santa Fe Drive has four travel lanes in the area from Buhach Road in Atwater easterly and two travel lanes westerly from that point through Winton. The posted speed limit on Santa Fe Drive is 35 mph through the downtown Winton area and 55 mph elsewhere. Daily traffic volumes on Santa Fe Drive are presented later in this report, and trucks comprised 7% of the daily volume east of Winton Way.

Shaffer Road. Shaffer Road is a north-south route that falls outside of the WCP but links the community with the City of Atwater. Shaffer Road extends northerly from an intersection on Atwater Blvd near SR 99 across Santa Fe Drive to its northern terminus on Oakdale Road about three miles beyond the WCP. Shaffer Road is designated a four-lane Major Urban Arterial in the Atwater General Plan, and the roadway has been improved to that width to a point just south of the BN&SF crossing near Santa Fe Drive. North of Santa Fe Drive Shaffer Road is designated a two-lane Major Collector in the Merced County General Plan.

Walnut Avenue. Walnut Avenue is a two-lane east-west road that extends from the City of Livingston easterly for about six miles through Winton to Shaffer Road. Walnut Avenue is designated a Major Collector in the Merced County General Plan between Livingston and Winton and a Minor Collector east of Livingston.

Other east-west streets that provide circulation in the Winton area include:

Olive Avenue. Olive Avenue is a two-lane road that extends from Livingston easterly across northern Winton to Shaffer Road. The WCP identified Olive Avenue as an Urban Major Collector west of Winton Way and an Urban Minor Collector east of Winton Way. Olive Avenue is a Minor Collector in the Merced County General Plan.

Myrtle Avenue. Myrtle Avenue is a two-lane street that extends from Vine Avenue to the BN&SFS railroad and from Jones Road to Peridot Avenue. The western segment is designated an Urban Major Collector. The eastern segment is designated as an Urban Major Collector west of Winton Way and an Urban Minor Collector east of Winton Way.

Almond Avenue. Almond Avenue is a two-lane road that extends east from an intersection on Cressey Road to Winton Way. The Merced County General Plan designates Almond Avenue a Minor Collector. The WCP identifies Almond Avenue as an Urban Minor Collector west of Cypress Avenue and an Urban Major Collector from that point to Winton Way.

Gertrude Avenue. Gertrude Avenue is a two-lane road that runs from Cypress Avenue to Shaffer Road. The WCP indicates that this road is an Urban Major Collector.

Camelia Drive. Camelia Drive is local two-lane Merced County road that links Winton Way and Shaffer Road in the area south of the WCP.

North-south roads providing WCP area circulation include:

Vine Avenue. Vine Avenue is a two-lane Urban Minor Collector that extends south from an intersection on Olive Avenue to Almond Avenue.

Jones Road. Jones Road is a two-lane Urban Major Collector that runs from Olive Avenue to Santa Fe Drive.

Cypress Avenue. Cypress Avenue is a two-lane Urban Major Collector that runs from Walnut Avenue to Gertrude Avenue.

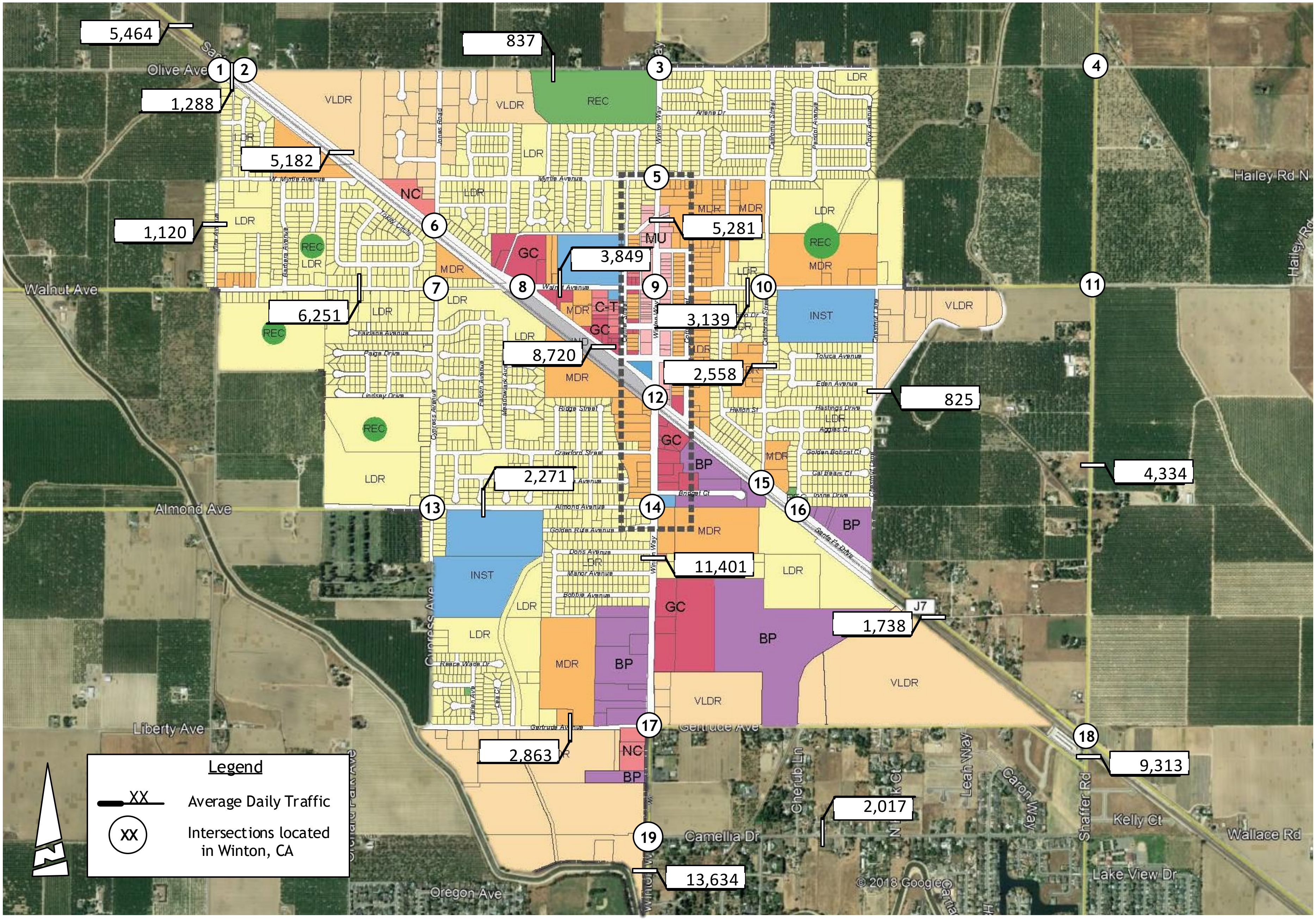
California Street. California Street extends from Santa Fe Avenue to Olive Avenue. This two-lane road is designated an Urban Major Collector.

Chestnut Lane. Chestnut Lane is an Urban Major Collector that runs north from Santa Fe Avenue to Walnut Avenue. The roadway will extend to Olive Avenue in the future.

Study Area Intersections

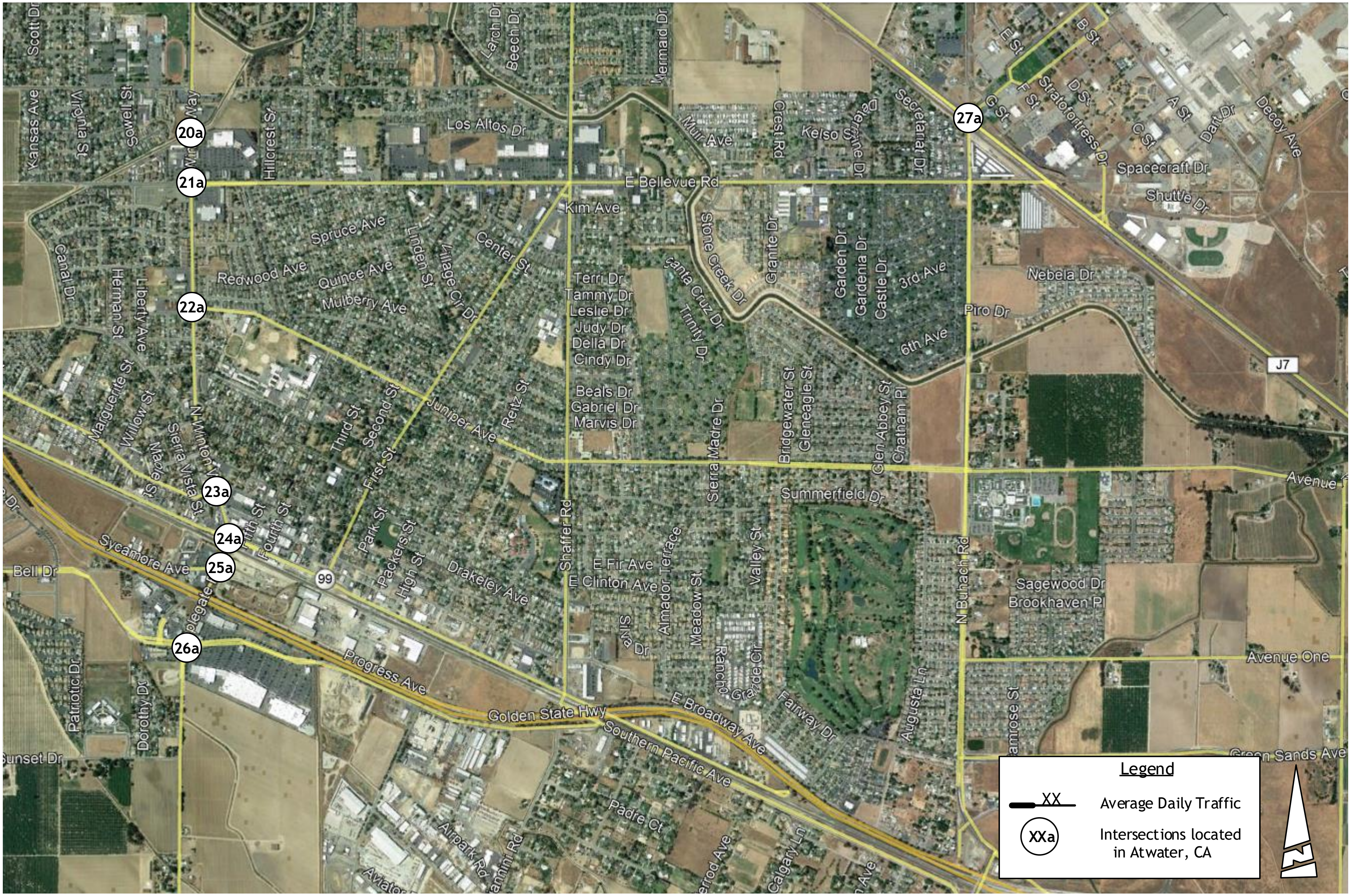
Based on direction from Merced County and comments from review agencies, this analysis addresses conditions at intersections within the WCP, in adjoining Merced County and in the City of Atwater, as listed in Table 1 and noted in Figures 3a and 3b.

TABLE 1 STUDY AREA INTERSECTIONS		
Intersection	**Jurisdiction**	**Control**
Santa Fe Drive / Olive Avenue (N)	Merced County	Side Street Stop
Santa Fe Drive / Olive Avenue (S)		Side Street Stop
Winton Way / Olive Avenue		All-Way-Stop
Shaffer Road / Olive Avenue		All-Way Stop
Winton Way / Myrtle Avenue		All-Way Stop
Sant Fe Avenue / Jones Road		Side Street Stop
Cypress Avenue / Walnut Avenue		Side Street Stop
Santa Fe Drive / Walnut Avenue		All-Way Stop
Winton Way / Walnut Avenue		All-Way Stop
California Street / Walnut Avenue		All-Way Stop
Shaffer Road / Walnut Avenue		All-Way Stop
Santa Fe Drive / Winton Way		Signal
Cypress Avenue / Almond Avenue		All-Way Stop
Winton Avenue / Almond Avenue		Signal
Santa Fe Drive / California Street		Signal
Santa Fe Drive / Chestnut Lane		Side Street Stop
Winton Way / Gertrude Avenue		Signal
Santa Fe Drive / Shaffer Road		Signal
Winton Way / Camelia Avenue		Side Street Stop
Winton Way / Fruitland Avenue	City of Atwater	Signal
Winton Way / Bellevue Road		Signal
Winton Way / Juniper Avenue		Signal
Winton Way / Olive Avenue		All-Way Stop
Winton Way / Atwater Blvd		Signal
Winton Way / Sycamore Avenue		Signal
Applegate Road / Commerce Lane		Signal
Santa Fe Drive / Buhach Road	Merced County	Signal



ROADWAY NETWORK AND STUDY LOCATIONS
WITH AVERAGE DAILY TRAFFIC VOLUMES

figure 3a



ROADWAY NETWORK AND STUDY LOCATIONS

KD Anderson & Associates, Inc.
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3490-05 RA 7/27/2020

figure 3b

Alternative Transportation Modes

Pedestrians Facilities. The nature of pedestrian facilities in the WCP was identified through the Community Plan update, and Figure 4 presents the location of sidewalks in Winton. As indicated sidewalks are absent on these major streets:

- Winton Way north of Hall Blvd and south of Santa Fe Drive
- Santa Fe Drive
- Myrtle Avenue between Jones Road and California Street
- Walnut Avenue west Santa Fe Drive and east of Cottage Street
- Almond Avenue west of Winton Way

Pedestrian crossings are marked at these locations on major roads:

- Crosswalks on Santa Fe Drive at Walnut Avenue
- Crosswalks on Santa Fe Drive at Winton Way signal
- Crosswalks on Santa Fe Drive at Shaffer Road signal
- Crosswalks on Winton Way at Almond Avenue signal
- Crosswalks on Winton Way at Gertrude Avenue signal

Bicycle Facilities. Chapter 10 of the Caltrans Highway Design Manual (HDM) presents information that classifies various types of bicycle facilities.

Class I Bikeway (Bike Path). Generally, bike paths should be used to serve corridors not served by streets and highways or where wide right of way exists, permitting such facilities to be constructed away from the influence of parallel streets. Bike paths should offer opportunities not provided by the road system. They can either provide a recreational opportunity, or in some instances, can serve as direct high-speed commute routes if cross flow by motor vehicles and pedestrian conflicts can be minimized. The most common applications are along rivers, ocean fronts, canals, utility right of way, abandoned railroad right of way, within school campuses, or within and between parks. There may also be situations where such facilities can be provided as part of planned developments. Another common application of Class I facilities is to close gaps to bicycle travel caused by construction of freeways or because of the existence of natural barriers (rivers, mountains, etc.).

Class II Bikeway (Bike Lane). Bike lanes are established along streets in corridors where there is significant bicycle demand, and where there are distinct needs that can be served by them. The purpose should be to improve conditions for bicyclists in the corridors. Bike lanes are intended to delineate the right of way assigned to bicyclists and motorists and to provide for more predictable movements by each. But a more important reason for constructing bike lanes is to better accommodate bicyclists through corridors where insufficient room exists for side-by-side sharing of existing streets by motorists and bicyclists. This can be accomplished by reducing the number of lanes, reducing lane width, or prohibiting or reconfiguring parking on given streets in order to delineate bike lanes. In addition, other things can be done on bike lane streets to improve the situation for bicyclists that might not be possible on all streets (e.g., improvements to the surface, augmented sweeping programs, special signal facilities, etc.). Generally, pavement markings alone will not measurably enhance bicycling. If bicycle travel is to be provided by delineation, attention should be made to assure that high levels of service are provided with these lanes. It is important to meet bicyclist expectations and increase bicyclist perception of service quality, where capacity analysis demonstrates service quality measures are improved from the bicyclist's point of view. Design guidance that addresses the mobility needs of bicyclists on Class II bikeways (bike lanes) is also distributed throughout this manual where appropriate.

Class III Bikeway (Bike Route). Bike routes are shared facilities which serve either to: (a) Provide continuity to other bicycle facilities (usually Class II bikeways); or (b) Designate preferred routes through high demand corridors. As with bike lanes, designation of bike routes should indicate to bicyclists that there are particular advantages to using these routes as compared with alternative routes. This means that responsible agencies have taken actions to assure that these routes are suitable as shared routes and will be maintained in a manner consistent with the needs of bicyclists. Normally, bike routes are shared with motor vehicles. The use of sidewalks as Class III bikeways is strongly discouraged.

Class IV Bikeways (Separated Bikeways). A Class IV bikeway (separated bikeway) is a bikeway for the exclusive use of bicycles and includes a separation required between the separated bikeway and the through vehicular traffic. The separation may include, but is not limited to, grade separation, flexible posts, inflexible posts, inflexible barriers, or on-street parking.

Figure 5 identifies existing bicycle facilities. As shown:

- Class II bike lanes exist on Winton Way south of the BN&SF railroad crossing
- Class II bike lanes exist on Walnut Avenue from Santa Fe Drive to Cottage Street

Public Transportation. Public transportation in the Winton area is provided by **The Bus**. The Bus, Merced's Regional Transit System, was formed from the consolidation of four former local public transit service providers in July 1996. Today "The Bus" is the single public transportation service provider for all of Merced County. Currently, The Bus operates 15 fixed routes and two deviated fixed routes throughout the region and provides paratransit service for qualifying individuals who cannot access the fixed-route service. The Bus carries approximately 1,000,000 passengers per year. https://www.mercedthebus.com/128/Bus-Routes-Schedules. Paratransit service is also available to all Merced County communities.

Figure 6 identifies transit routes through Winton.

W-1 Winton Commuter runs on hourly headways from Winton through Castle Center to the Merced Transportation Center. Designated stops in Winton are at the Dollar General and at the VFW.

W-2 Winton Commuter – North runs from Winton through Atwater to Olive Avenue in Merced and to Merced College. The same stops in Winton are visited on one-hour headways.

A-2 Atwater – Winton follows Winton Way from Atwater to the Walmart on Commerce Lane in Atwater. Designated stops in Winton are at the Dollar General and at the VFW.

L Livingston Commuter follows Walnut Avenue from Livingston through Winton to Santa Fe Avenue and on to Merced College. This route also stops at the VFW.

BN&SF Railroad Crossings. The Burlington Northern Railway Company maintains 43 miles of track within Merced County, including the line through Winton along the south side of Santa Fe Drive. There are four public road crossings on the BN&SF line in the area of the WCP.

The ***Olive Avenue crossing*** is located immediately adjacent to the stop-controlled Santa Fe Drive / Olive Avenue (N) intersection, and Olive Avenue intersects Vine Avenue just west of the railroad. The crossing is gated. Motorist crossing the tracks are stopped at the Santa Fe Drive intersection, but westbound traffic is not stopped at the Vine Avenue intersection.

The ***Walnut Avenue crossing*** is located about 240 feet west of the Santa Fe Drive / Walnut Avenue intersection. The crossing is gated, and eastbound traffic over the crossing would be stopped at the Santa Fe Drive intersection.

The ***Winton Way crossing*** is adjacent to the signalized Santa Fe Drive / Winton Way intersection. Merced County is implementing an intersection improvement project that will install a Pre-signal on the northbound approach, improve coordination between trains and the intersection and install pedestrian pathways.

The ***Shaffer Road crossing*** is adjacent to the signalized Santa Fe Drive / Shaffer Road intersection. The crossing is gated, and traffic signal preemption for approaching trains is provided.

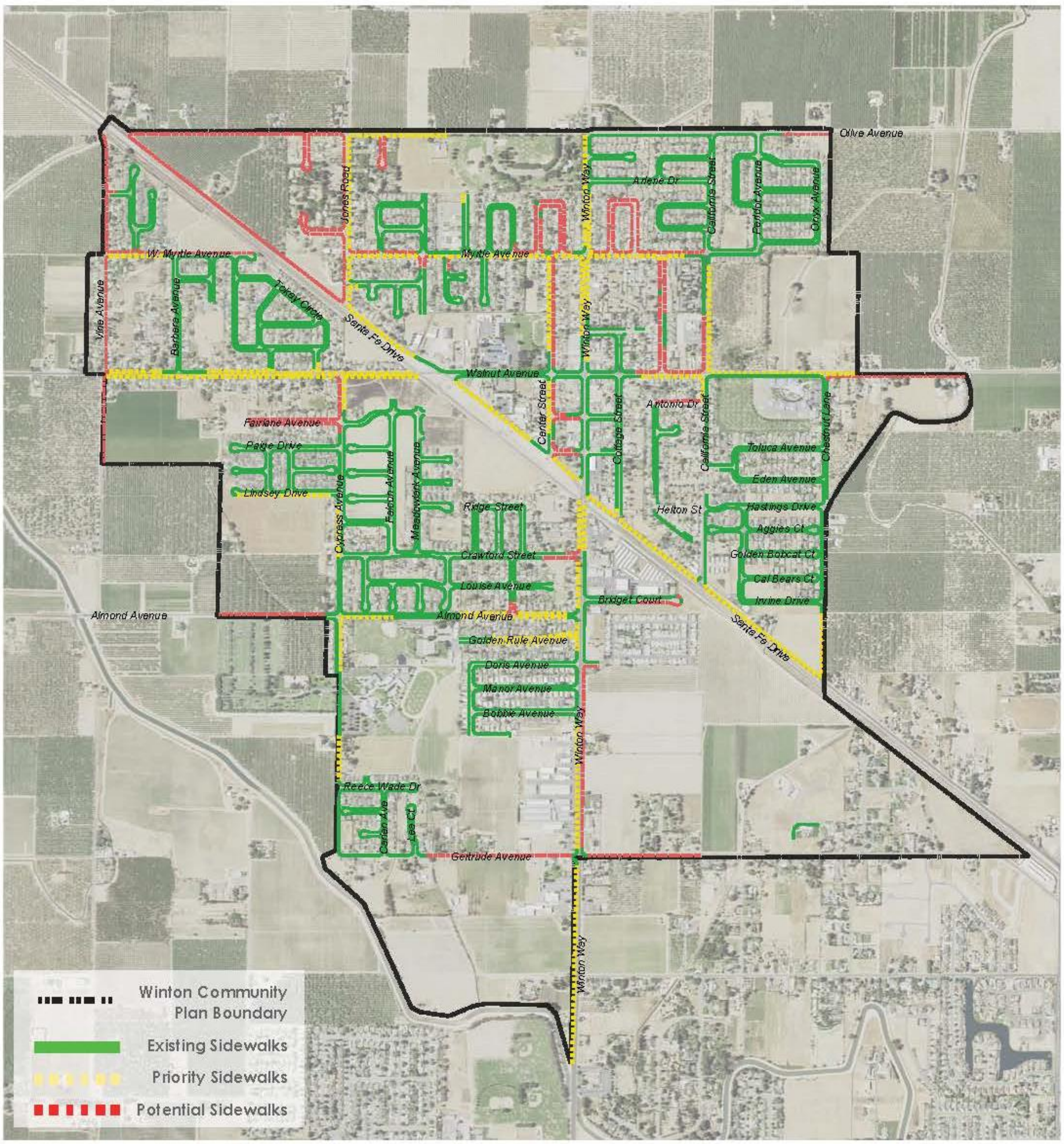

FIGURE 5.10: EXISTING AND PROPOSED SIDEWALKS

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WCP SIDEWALK PLAN

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figure 4

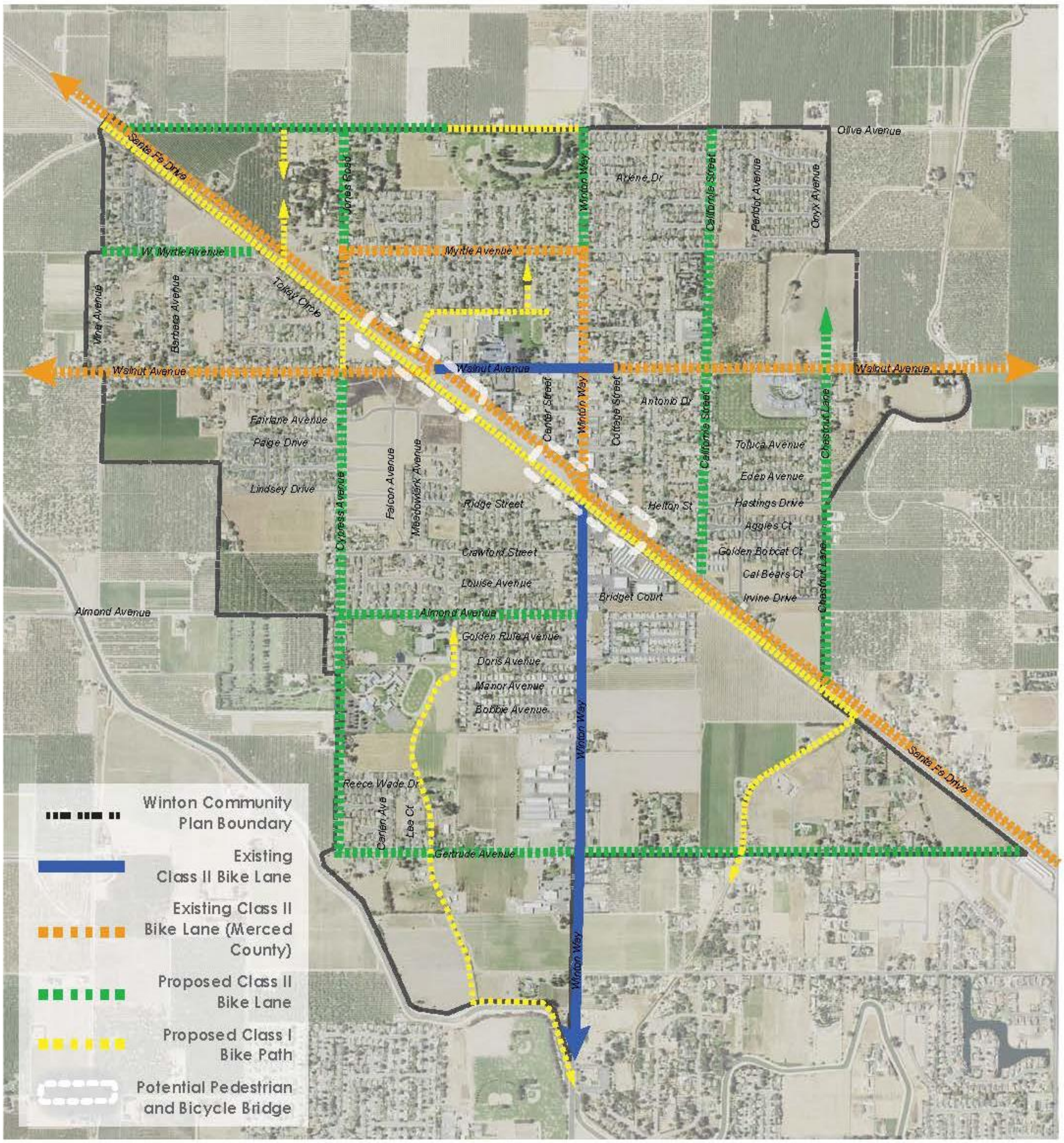

FIGURE 5.11: EXISTING AND PROPOSED BICYCLE FACILITIES

WCP BICYCLE PLAN

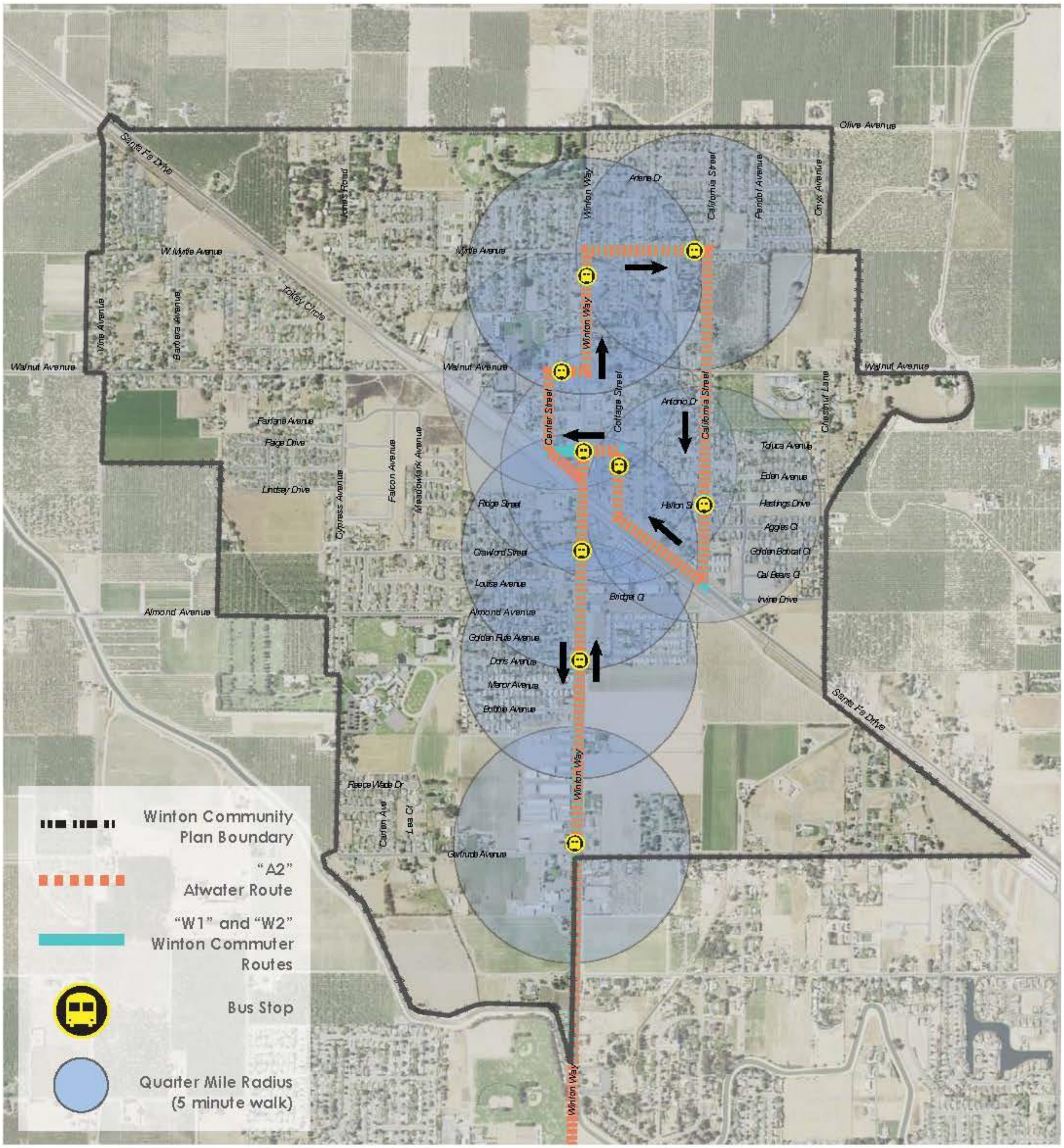

FIGURE 5.12: MERCED COUNTY TRANSIT AUTHORITY BUS ROUTE

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WCP TRANSIT ROUTES

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figure 6

TRAFFIC OPERATIONAL ANALYSIS

Level of Service Methodology

The quality of traffic flow in Winton and the impact of implementing the Community Plan has been quantitatively evaluated based on intersection and roadway segment Level of Service. *Level of Service* is a qualitative measure of traffic operating conditions using letter grades "A" through "F", corresponding to progressively worsening operating conditions.

Intersection Analysis Methodology. Levels of Service were calculated for this study using the methodology contained in the Transportation Research Board's *Highway Capacity Manual 2010 (HCM 2010).* At signalized intersections and intersections controlled by stop signs on all approaches, the overall LOS for intersections is based on the average length of delays for all motorists at the intersections. Table 2 presents the ranges of average vehicle delay associated with each Level of Service for signalized intersections.

TABLE 2
LEVEL OF SERVICE DEFINITIONS

Level of Service	Signalized Intersection	Unsignalized Intersection	Roadway (Daily)
"A"	Uncongested operations, all queues clear in a single-signal cycle. Delay ≤ 10.0 sec	Little or no delay. Delay ≤ 10.0 sec/veh	Completely free flow.
"B"	Uncongested operations, all queues clear in a single cycle. Delay > 10.0 sec and ≤ 20.0 sec	Short traffic delays. Delay > 10 sec/veh and ≤ 15 sec/veh	Free flow, presence of other vehicles noticeable.
"C"	Light congestion, occasional backups on critical approaches. Delay > 20.0 sec and ≤ 35.0 sec	Average traffic delays. Delay > 15 sec/veh and ≤ 25 sec/veh	Ability to maneuver and select operating speed affected.
"D"	Significant congestions of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. Delay > 35.0 sec and ≤ 55.0 sec	Long traffic delays. Delay > 25 sec/veh and ≤ 35 sec/veh	Unstable flow, speeds and ability to maneuver restricted.
"E"	Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach (es). Delay > 55.0 sec and ≤ 80.0 sec	Very long traffic delays, failure, extreme congestion. Delay > 35 sec/veh and ≤ 50 sec/veh	At or near capacity, flow quite unstable.
"F"	Total breakdown, stop-and-go operation. Delay > 80.0 sec	Intersection blocked by external causes. Delay > 50 sec/veh	Forced flow, breakdown.
Sources: 2010 Highway Capacity Manual, Transportation Research Board (TRB) Special Report 209.			

Different methodology is employed for assessing Level of Service at un-signalized intersections where some approaches are not controlled. At stop-sign-controlled un-signalized intersections (side street stop or one-way stop T intersections), the average delay and LOS can be determined for each individual movement that must yield the right of way. Impact analysis is based on the length of the average delay for the movements where motorists experience the longest delay, which is typically a left turn made from the stop-sign-controlled approach to the intersection. It should be noted that overall intersection average LOS at un-signalized intersections is better, often much better, than LOS on the worst single movement.

Roadway Segment Analysis Methodology. The Level of Service on study area roadway segments can be determined based on daily traffic volume using applicable thresholds adopted by local agencies. The Merced County General Plan Update EIR provides information for County Roads and state highways. Table 3 identifies the applicable standards for the roads evaluated in this analysis. The arterial standard is applicable to Minor and Primary Arterials streets. The collector standard is applicable to the community's Minor and Major and Collector streets.

TABLE 3
ROADWAY SEGMENT LEVEL OF SERVICE THRESHOLDS

				Maximum Daily Volume at Level of Service				
Road	**Area**	**Facility**	**Median**	**A**	**B**	**C**	**D**	**E**
Arterial	Urban	4-lanes	undivided	-	-	15,600	27,800	29,400
Arterial	Urban	2-lanes	undivided	-	-	7,000	13,600	14,600
Collector	Urban	2-lanes	undivided	-	-	4,800	10,000	12,600

Source: Merced County General Plan EIR Table 19-1

Traffic Signal Warrants. The extent to which traffic signals may be needed has been determined through application of traffic signal warrants contained in the Manual of Uniform Traffic Control Devices (MUTCD). Warrant No. 4 (peak hour traffic volume) was used to determine whether existing traffic volumes may justify signalization. Warrant No. 9 (Intersection Near a Grade Crossing) was reviewed to consider the need to signalize an intersection in close proximity to a railroad crossing based on the potential for stopped traffic queuing back over the tracks when a train approaches. The warrant can be applicable to intersections that are within 140 feet of the railroad track, measured from stop bar to center of track.

Existing Levels of Service

Traffic Volumes. To determine existing traffic volumes and obtain more information about traffic conditions in the study area, traffic counts were taken during the morning and evening peak traffic periods at the study intersections. Daily traffic volume counts were also conducted on study area roadways. These counts were made on September 25, 2018 when the Community

Plan process began, and local schools were in regular session at that time. Figures 7 and 7b identify the a.m. and p.m. peak hour traffic volumes used for this analysis.

Intersection Level of Service. Existing Levels of Service at each intersection are shown on Table 4. As shown, with one exception the Levels of Service at all intersections meet Merced County and City of Atwater LOS D minimum standards. The exception is the Santa Fe Drive / Shaffer Road intersection, which operates at LOS E in the p.m. peak hour.

TABLE 4
EXISTING INTERSECTION LEVEL OF SERVICE

Intersection	Jurisdiction	Control	Existing				Traffic Signal Warrants Met?
			AM Peak Hour		PM Peak Hour		
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	
Santa Fe Dr / N. Olive Ave	Merced County	SSS[1]	12	B	11	B	Yes[3]
Santa Fe Dr / S. Olive Ave		SSS	10	B	10	B	Yes[3]
Winton Way / Olive Ave		AWS[2]	7	A	8	A	No
Schaffer Rd / Olive Ave		AWS	8	A	10	B	No
Winton Way / Myrtle Ave		AWS	8	A	9	A	No
Santa Fe Dr / Jones Road		SSS	12	B	14	B	No
Cypress Ave / Walnut / Ave		SSS	16	C	14	B	No
Santa Fe Dr / Walnut Ave		AWS	26	D	22	C	No
Winton Way / Walnut Ave		AWS	11	B	12	B	No
California St / Walnut Ave		AWS	11	B	9	A	No
Schaffer Rd / Walnut Ave		AWS	9	A	10	B	No
Santa Fe Dr / Winton Way		Signal	21	C	20	C	-
Cypress Ave / Almond Ave		AWS	16	C	9	A	No
Winton Way / Almond Ave		Signal	9	A	8	A	-
Santa Fe Dr / California St		Signal	11	B	10	B	-
Santa Fe Dr / Chestnut Lane		SSS	17	C	18	C	No
Winton Way / Gertrude Ave		Signal	20	B	18	B	-
Santa Fe Dr / Shaffer Road		Signal	**59**	**E**	43	D	-
Winton Way / Camelia Ave		SSS	19	C	16	C	No
Winton Way / Fruitland Ave	City of Atwater	Signal	33	C	11	B	-
Winton Way / Bellevue Road		Signal	27	C	23	C	-
Winton Way / Juniper Ave		Signal	16	B	14	B	-
Winton Way / Olive Avenue		AWS	14	B	25	D	No
Winton Way / Atwater Blvd		Signal	23	C	32	C	-
Winton Way / Sycamore Ave		Signal	16	B	44	D	-
Applegate Rd / Commerce Dr		Signal	17	B	25	C	-
Santa Fe Dr / Buhach Rd	Merced County	Signal	21	C	18	B	-

[1] Side Street Stop control. [2] All-Way Stop Control [3] Warrant 9 Intersection Near a Grade Crossing
Highlighted values exceed minimum LOS D

Traffic Signal Warrants. The quality of current traffic flows through unsignalized intersections can also be determined based on the need for traffic signals. Warrant No. 4 (peak hour traffic volume) was used to determine whether existing traffic volumes may justify signalization. Review of these traffic volumes indicates that current traffic volumes do not reach the level that reach warrant levels during the a.m. peak hour or p.m. peak hour.

The applicability of Warrant No. 9 (Intersection Near a Grade Crossing) was considered for the two BN&SF crossings near stop-controlled intersections. The distance from the Walnut Avenue crossing is 240 feet. Because this distance exceeds the 140 foot threshold identified by MUTCD, this warrant is not applicable. The Olive Avenue crossing is 60 feet from Santa Fe Drive intersection limit line, and the warrant could apply.

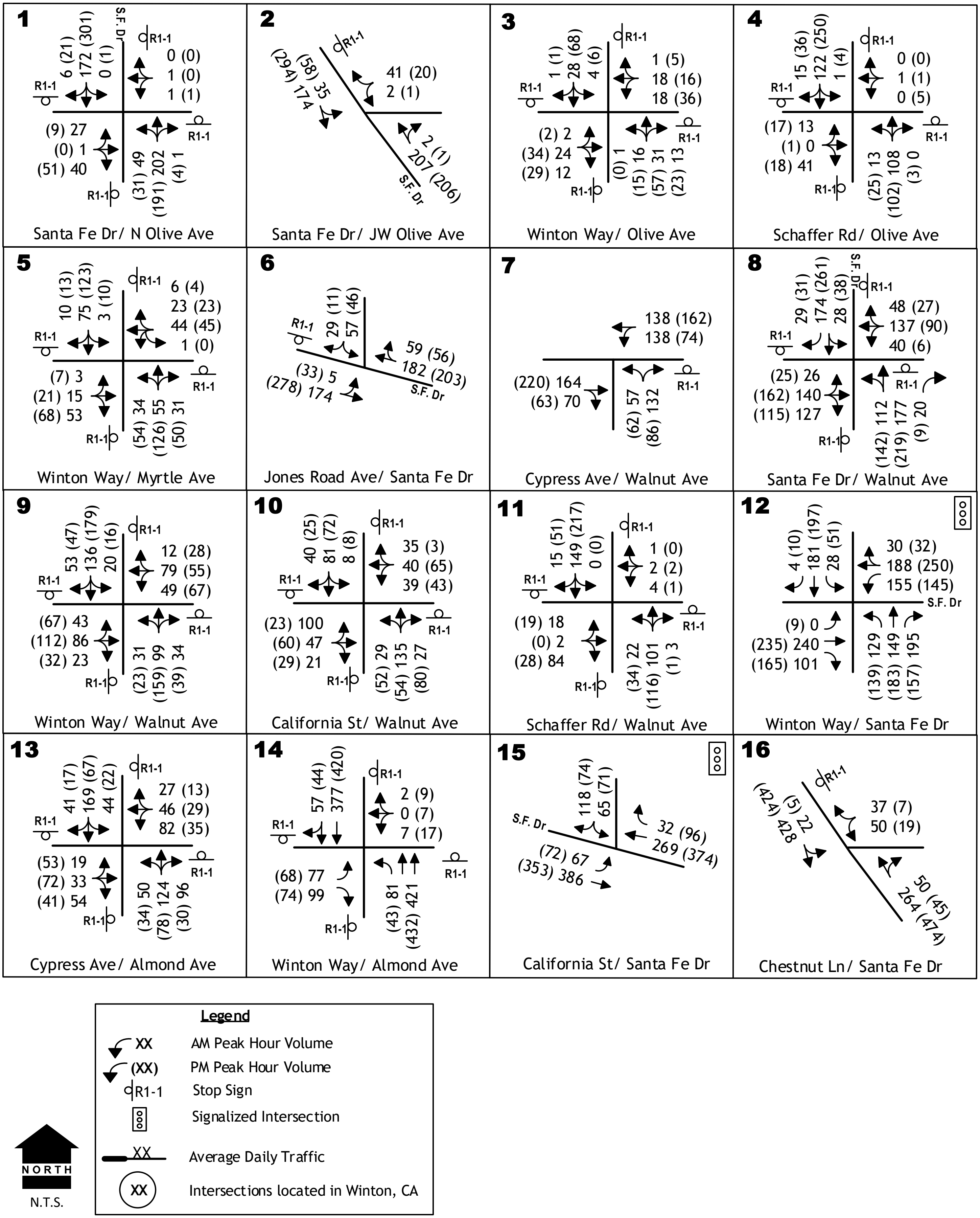
While the peak hour volumes on the eastbound Olive Avenue approach are relatively low 60 to 68 (vph), the higher volumes on Santa Fe Drive (i.e., 430 to 538 vph) indicate that current conditions likely satisfy the minimum requirements under this warrant.

Daily Traffic Volume Level of Service. The volume of traffic on study area roads was compared to adopted Level of Service thresholds, and the results are noted Table 5. As indicated current volumes are generally indicative of LOS C or better conditions. While the 2-lane segment of Shaffer Road south of Santa Fe Drive operates at LOS D, the minimum standard of the City of Atwater is met.

TABLE 5
ROADWAY SEGMENT LEVEL OF SERVICE

Street	Location	Jurisdiction	Class	Lanes	Existing Daily Volume (ADT)	Existing LOS
Winton Way	Fruitland Ave to Gertrude Ave	Atwater	Minor Art	4	13,634	C
Winton Way	Gertrude Ave to Santa Fe Dr	Merced Co	Minor Art	4	11,401	C
Winton Way	Santa Fe Dr to Olive Ave		Minor Art	2	5,281	C
Santa Fe Dr	Winton Way to Shaffer Rd		Principal Art	2	9,738	D
Walnut Ave	Vine Ave to Santa Fe Dr		Major Col	2	6,251	D
Walnut Ave	Santa Fe Dr to Winton Way		Major Col	2	3,849	C
Walnut Ave	Winton Way to California Ave		Major Col	2	3,139	C
Almond Ave	Cypress Ave to Winton Way		Major Col	2	2,271	C
California St	Santa Fe Dr to Walnut Ave		Major Col	2	2,558	C
Shaffer Rd	Walnut Ave to Santa Fe Dr		Minor Col	2	4,334	C
Shaffer Rd	Santa Fe Dr to Gertrude Ave	Atwater	Major Art	2	9,313	D

2-lane COLLECTOR LOS D threshold is 10,000 ADT, 2-lane ARTERIAL is 13,600, 4-lane ARTERIAL is 27,800



EXISTING TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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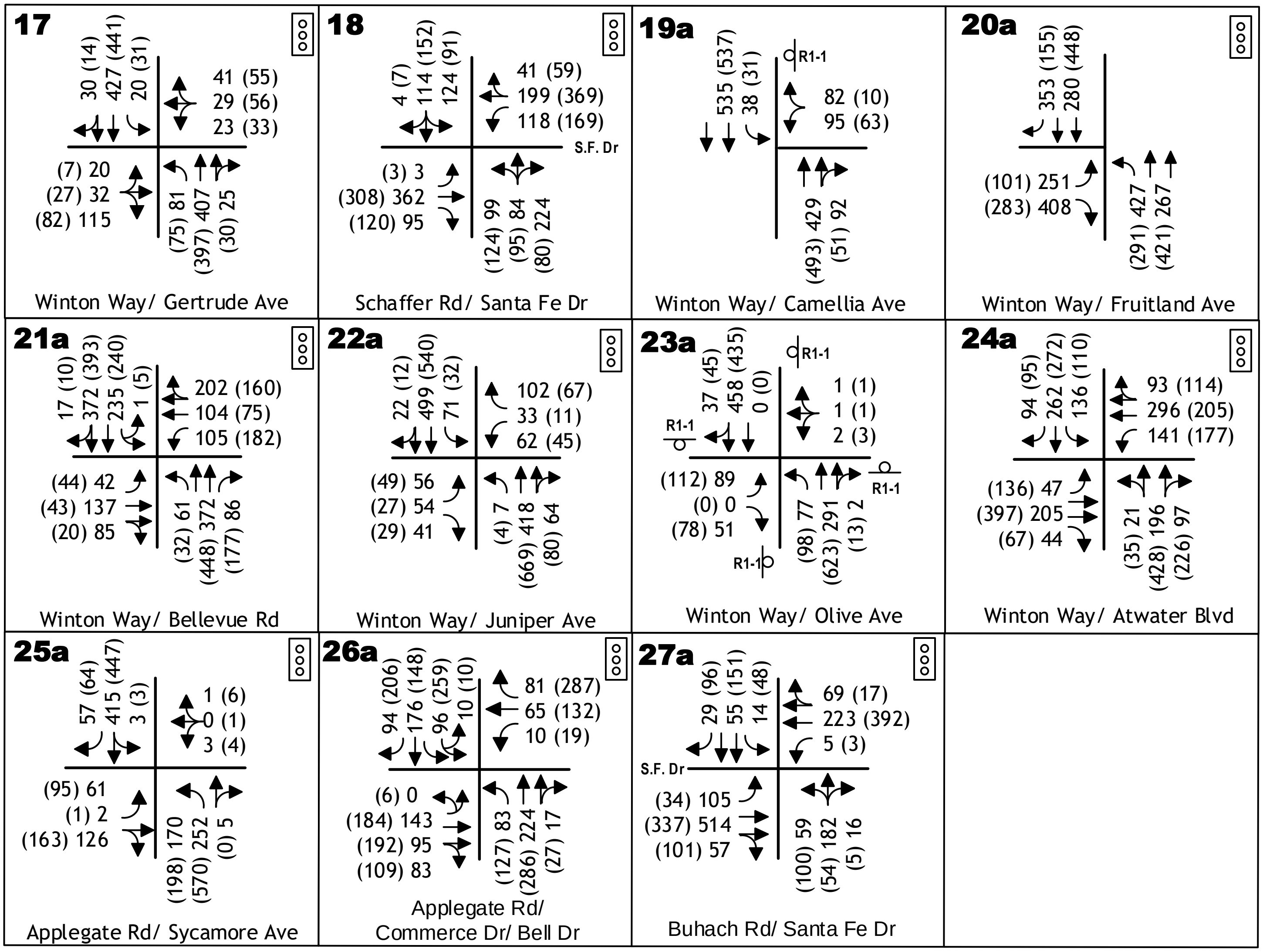
figure 7a



Legend

- XX AM Peak Hour Volume
- (XX) PM Peak Hour Volume
- R1-1 Stop Sign
- Signalized Intersection
- XX Average Daily Traffic
- XXa Intersections located in Atwater, CA

NORTH

N.T.S.

EXISTING TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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figure 7b

CHARACTERISTICS OF IMPLEMENTING THE WINTON COMMUNITY PLAN

For the purpose of this transportation impact study, the project is defined as the development of the future land uses and circulation system that are anticipated to be developed under the Winton Community Plan.

Planned WCP Circulation System

The Circulation Element of the Winton Community Plan identities multi-modal circulation system improvements to be considered or implemented as the community develops.

Santa Fe Drive south of Walnut Avenue

- 4-foot Class II bike lanes on east side
- Potential 8-foot multi-use trail on west side
- Study of Santa Fe Drive / Winton Way realignment

Santa Fe Drive west of Walnut Avenue

- 5-foot sidewalks
- 4-foot Class II bike lanes on east side
- Potential 8-foot multi-use trail
- Study of Santa Fe Drive / Walnut Avenue re-alignment

Winton Way

- 4.5-foot sidewalks
- 4-foot Class II bike lanes
- Enhanced pedestrian crossing near the Doris Avenue / Winton Way bus stop
- Study of Santa Fe Drive / Winton Way realignment

Almond Avenue, Gertrude Avenue

- Sidewalks
- Potential 4-foot Class II bike lanes

California Street, Jones Road

- 4.5-foot sidewalks
- 4-foot Class II bike lanes
- Study of potential Santa Fe Drive – BN&SF pedestrian crossing/ bridge

Chestnut Lane, Cypress Avenue

- 4.5-foot sidewalks
- 4-foot Class II bike lanes

Olive Avenue, west of Winton Way

- 4.5-foot sidewalks
- 4-foot Class II bike lanes
- Potential multi-use trail on south side

Olive Avenue, east of Winton Way

- 4-foot Class II bike lanes

Myrtle Avenue, west of Winton Way

- 4-foot Class II bike lanes
- Potential pedestrian crossing/ bridge from West Myrtle to Santa Fe Drive multi-use trail

Walnut Avenue

- 4-foot Class II bike lanes
- Enhanced Railroad crossing for pedestrians and bicycles
- Study of Santa Fe Drive / Walnut Avenue re-alignment

In addition to these multi-modal improvements, the WCP indicates that **Chestnut Lane** will be extended northerly from Walnut Avenue to Olive Avenue as development occurs. This improvement has been assumed to be installed to assess the effects of implementing the WCP.

As noted earlier, safety intersection improvement project is being pursued at the **Santa Fe Drive/ Winton Way intersection.** This project has been assumed to be completed.

Future Land Use

Residential The amount of traffic on Winton's arterial and collector streets is dependent on the number of new trips accompanying planned development, as well as regional through traffic increases on the routes that serve both Winton and other communities. The nature and quantity of new land use anticipated in Winton over the life of the plan was quantified in the WCP. A net increase of 1,676 residences[1] is anticipated. This estimate assumes residences are developed in those areas where schools may be developed in the future, and if schools are created an equivalent number of dwellings will be allowed elsewhere in the plan area.

School. To assess the impact of future schools it was necessary to make assumptions regarding the locations of future schools and the enrollment of existing and future schools when the community plan is occupied. As noted in the Project Description, at buildout it is anticipated that there would be enough elementary students within the Plan Area to warrant an additional elementary school. Ultimately, the location, size and timing of a new school would be determined by the Winton Elementary School District (WESD), so a specific school site is not identified within the proposed Community Plan. The WESD boundaries include most of the WCP area, as well as extensive acreage to the north, so a school could be located within or outside of the Plan Area. For this analysis, it is assumed that a new elementary school would be located in the northwest portion of the WCP area and would displace approximately 15 acres of low-density residential development (approximately 75 units). The new school is assumed to have a capacity of 600 students as was assumed to be in place under a.m. peak hour conditions.

1 The number of residential units assumed in this traffic analysis reflects an earlier version of the proposed Community Plan. The current proposed Community Plan allows for up to 1,656 new residential units. At the same time, the amount of Business Park development is slightly lower in the traffic analysis than in the current proposal (732 ksf square feet compared to 734 ksf). These differences partially offset each other, and are not substantial enough to alter the findings of this analysis.

Non-Residential. The WCP identified a variety of non-residential land uses. Commercial and Mixed-Use uses could result in an increase of up to 441 ksf. Industrial and Business Park uses could result in up to an additional 800 ksf of building floor area.

Travel Characteristics of Future Development

Trip Generation. Estimating the number of vehicle trips associated with new development and assigning those trips to the area street system is required to determine the amount of vehicular traffic that will be added to the Winton area street system. The first step in this process is identification of applicable trip generation rates for the land uses assumed under the WCP.

Rates. Applicable trip generation rates from the ITE Trip Generation Manual, 10th Edition are presented in Table 6. These rates suggest the total traffic that would occur at the driveways to individual uses.

Forecasts. Table 7 is the result of application of ITE rates to the WCP's land use inventory. As indicated the "gross total" for all uses is 38,362 daily trips, with 3,181 trips in the a.m. peak hour and 3,858 trips in the p.m. peak hour.

Internal / External Trips. Trips generated by residential and non-residential trips are inter-related. A portion of the trips "produced" by new residences will be one end of a new trip that is "attracted" to new non-residential use. In order to avoid "double counting" new trips, it is necessary to identify the relationship between land uses in order that the "internal" trips that will remain within Winton are not "counted twice". Similarly, a share of the trips generated by retail uses are often attracted from the stream of traffic passing the site, and these "pass-by" trips do not represent new trips on the community's street system. Also, many of the trips attracted to schools are made by parents who drop off student on their way to another destination, and these "diverted linked" trips are already counted in the trips generated by other uses.

An example of the interrelationship between uses is shown on a daily basis in Table 8. These statistics are based on the results of an MCAG model "select zone" trace of the trips generated by new Winton development with adjustment based on our assessment of local conditions. After accounting for retail "pass-by trips", there are 33,621 trips associated with new development and school travel. Of that total, after accounting for double counting of internal, trips 7,767 new trips will be added between uses in Winton (Internal Trips) and 21,817 will be "External" trips that leave Winton. A share of the external trips will be made by parents who stop at Atwater High School and other area schools in the morning and afternoon as part of another external trip (i.e., "diverted linked" trips).

TABLE 6
TRIP GENERATION RATES

Use	Description	Unit	Trips per Unit						
			Daily	AM peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
LDR MDR	Single Family Detached (210)	Dwelling	9.44	25%	75%	0.74	63%	37%	0.99
MU-res	Low Rise Multi-Family Residential	Dwelling	7.32	23%	77%	0.46	63%	37%	0.56
GC NC MU-Retail	Shopping Center (820)	Ksf	37.75	62%	38%	0.94	48%	52%	3.81
BP - industrial	Industrial Park (130) <250ksf	Ksf	6.04	81%	19%	0.40	21%	79%	0.40
MU-office	Office (710) <100 ksf	Ksf	10.61	86%	14%	1.20	17%	83%	1.15
INST	Elementary School (520)	Student	1.89	54%	46%	0.67	48%	52%	0.17
INST	Middle / Jr. High School (522)	Student	2.13	54%	46%	0.58	49%	51%	0.17
INST	High School (530)	Student	2.03	67%	33%	0.62	48%	52%	0.14

Source: Institute of Transportation Engineers, Trip Generation Manual, 10^{th} Edition, 2018

TABLE 7
TRIP GENERATION FORECASTS FOR NEW WINTON DEVELOPMENT

Use	Description	Quantity	Trips per Unit						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
VLDR LDR MDR	Single Family Detached (210)	1,647 du's	15,548	305	914	1,219	1,027	604	1,631
MU-res	Low Rise Residential (220)	29 du's	212	3	10	13	10	6	16
	Residential Subtotal	**1,676 du's**	**15,760**	**308**	**924**	**1,232**	**1,037**	**610**	**1,647**
GC	Shopping Center (820)	249.5 ksf	9,419	145	90	235	456	495	951
NC		67.5 ksf	2,548	39	24	63	123	134	257
C-T		28.5 ksf	1,076	17	10	27	52	57	109
MU-Retail	Shopping Center (820) 25% of MU	23.9 ksf	902	14	8	22	44	47	91
	Total Retail	369.2 ksf	13,945	215	132	347	675	733	1,408
	Pass-by (average for Shopping Center)	34%	4,741	73	45	118	230	249	479
	Net New		9,204	142	87	229	445	484	929
BP - Office	Office (710) < 100 ksf 25% of BP	183.1 ksf	1,943	189	31	220	36	175	211
MU - Office	Office (710) 75% of MU	71.6 ksf	760	74	12	86	14	68	82
	Total Office	254.78 ksf	2,703	263	43	306	50	243	293
BP - Industrial	Industrial Park (130) 75% BP	549.2 ksf	3,317	178	42	220	46	174	220
Industrial	Industrial Park (130)	68.0 ksf	410	22	5	27	6	21	27
	Total Industrial	617.2 ksf	3,727	200	47	247	52	195	247
	Total Non-Residential (less Pass-by)		**15,634**	**605**	**177**	**782**	**547**	**922**	**1,469**
INST	Elementary School (520) (K-6)	879 students	1,661	318	271	589	72	77	149
INST	Middle / Jr. High School (522) (7-8)	254 students	541	80	67	147	21	22	43
INST	High School (530) (9-12)	505 students	1,025	210	103	313	34	37	71
	Schools Total	1,638 students	3,227	608	441	1,049	127	136	263
	Gross Total All Trips (including schools)		***38,362***			***3,181***			***3,858***
	Total Less Retail Pass-by		***33,621***			***3,063***			***3,379***

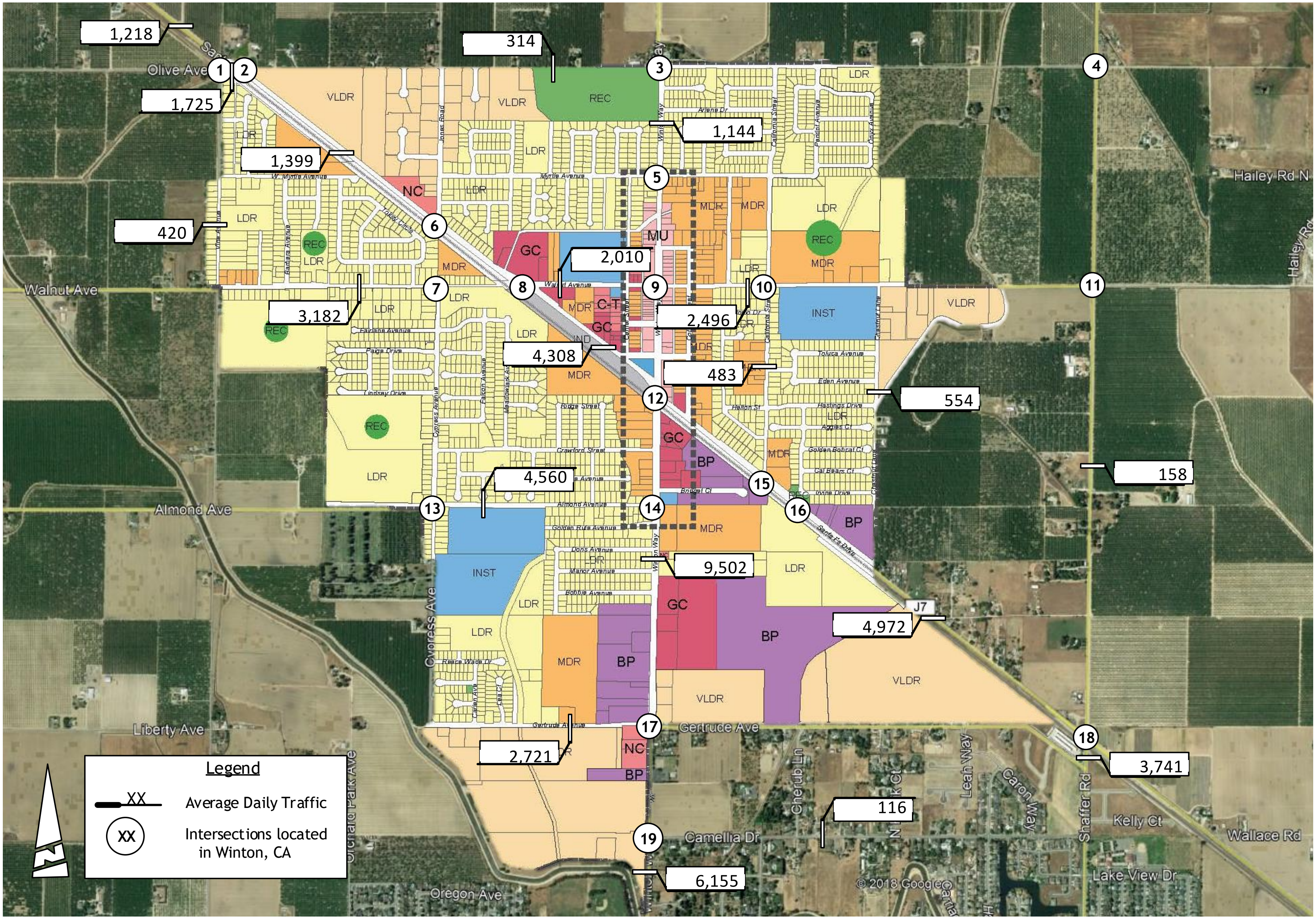
TABLE 8
WINTON DAILY INTERNAL / EXTERNAL TRIP DISTRIBUTION

New Land Use	Total	Percentage of Total / Daily Trips							
		Internal							External Percentage / Trips
		From New Homes to Existing Non-Residential Uses	From New Homes to New Non-Residential Uses	From New Homes To Schools	From New Non-Residential to Existing Residential	From New Non-Residential to New Residential	From New Non-Residential to Non-Residential	"Link Diverted" as part of other trip	
Residential		10%	15%	10%	-	-	-	-	65%
	15,760	1,576	2,360	1,576	-	-	-	-	10.248
Office/ Industrial					8%	10%	9%	-	75%
	6,430	-		-	480	643	485	-	4,822
Retail				-	10%	16%	4%	-	70%
	9,204			-	920	1,490	370	-	6,424
Schools (students)						49%		41%	10%
	3,227	-	-	-		1,576		1,328	323
Total									65%
	33,621								**21,817**

External Trip Distribution. Table 9 summarizes the daily distribution for external trips caused by Winton area development, as derived from the MCAG regional travel demand forecasting model.

TABLE 9 DAILY TRIP DISTRIBUTION		
Direction	**Route**	**Percent of External Trips**
North	Winton Way beyond Olive Avenue	2.5%
	Shaffer Road beyond of Olive Avenue	3.0%
	Castle Entrance	4.0%
Northwest	Santa Fe Drive beyond Olive Avenue	5.0%
Southeast	Santa Fe Drive beyond Buhach Road	16.0%
South	Applegate Road beyond Commerce Lane	3.5%
	Shaffer Road south of Gertrude Avenue	14.0%
	Atwater between Bellevue Road and Atwater Blvd	7.5%
	Buhach Road south of Santa Fe Drive	4.0%
West	Olive Avenue beyond Vine Avenue	2.5%
	Walnut Avenue beyond Vine Avenue	12.0%
	Almond Avenue beyond Vine Avenue	11.5%
East	Bellevue Road east of Winton Way	6.5%
	Atwater Blvd east of Winton Way	2.0%
	State Route 99 east of Applegate Road	2.0%
	Commerce Lane east of Applegate Road	4.0%
	TOTAL	100%

Traffic Volumes. Figure 8 presents daily traffic volumes caused by the WCP, and Figures 9a and 9b present the a.m. and p.m. peak hour trips associated with future development in Winton at each study intersection.



PROJECT ONLY AVERAGE DAILY VOLUMES

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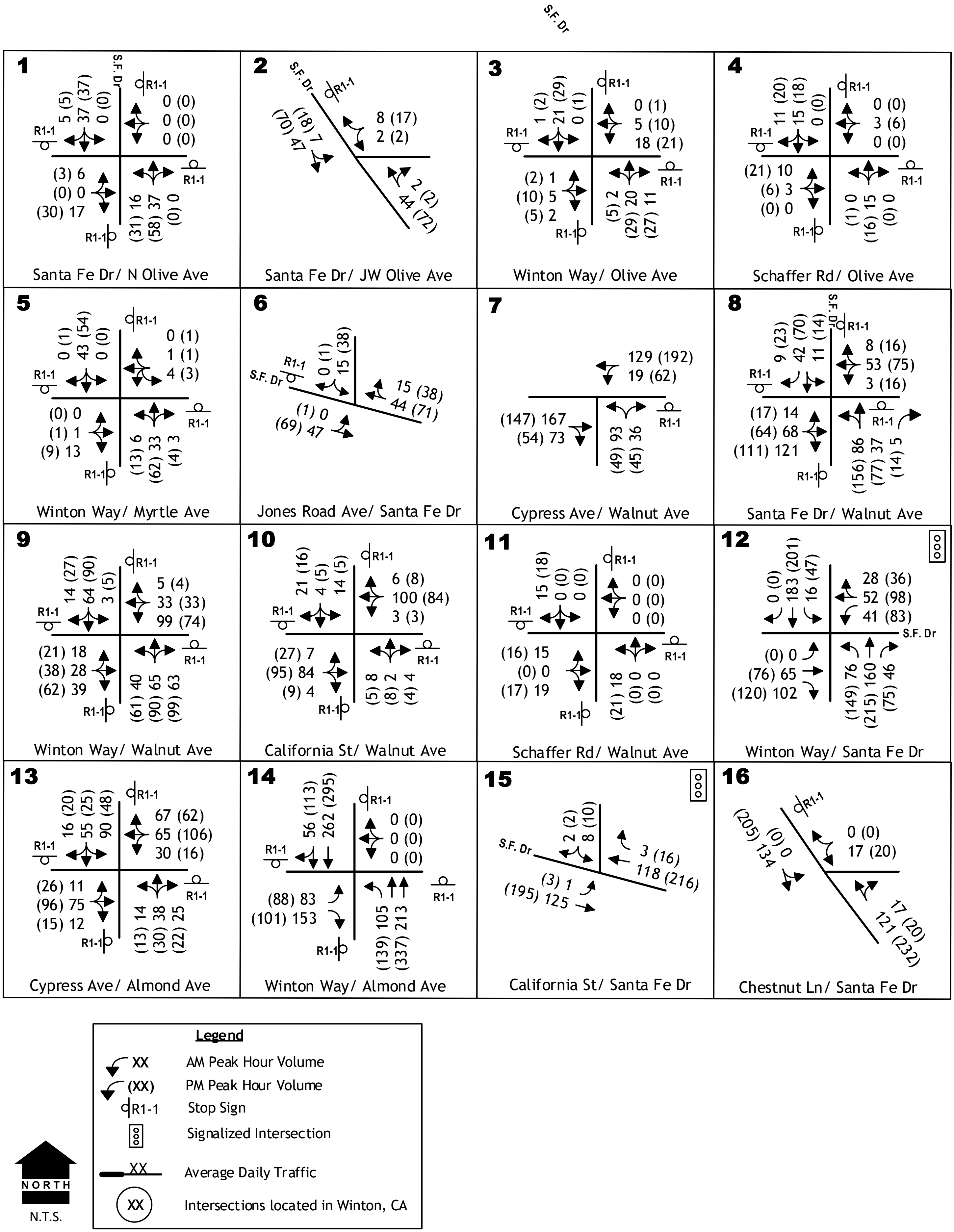
Transportation Engineers

3490-05 RA 7/27/2020

figure 8

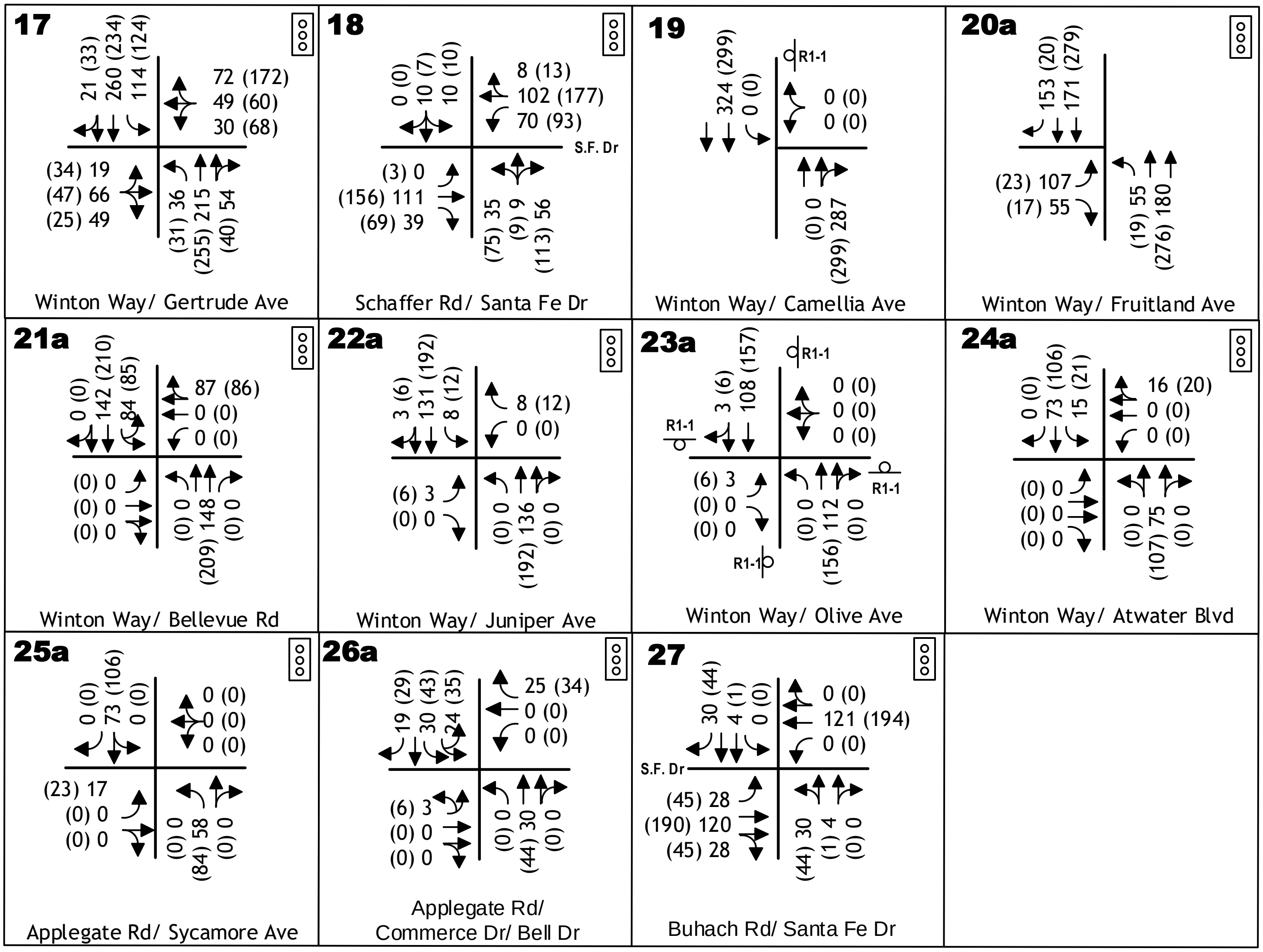


KD Anderson & Associates, Inc.
Transportation Engineers

PROJECT ONLY TRAFFIC VOLUMES AND LANE CONFIGURATIONS

3490-05 RA 7/27/2020

figure 9a



Legend

XX	AM Peak Hour Volume
(XX)	PM Peak Hour Volume
R1-1	Stop Sign
	Signalized Intersection
XX	Average Daily Traffic
XXa	Intersections located in Atwater, CA

KD Anderson & Associates, Inc.
Transportation Engineers

PROJECT ONLY TRAFFIC VOLUMES
AND LANE CONFIGURATIONS

3490-05 RA 7/27/2020

figure 9b

REGULATORY SETTING

State of California

Caltrans has jurisdiction over state highways. As noted earlier, Caltrans Traffic Study Guidelines provided direction for traffic operational analysis.

SR 99 Transportation Concept Report (SR 99 TCR). SR 99 is under the jurisdiction of Caltrans. Caltrans developed a Transportation Concept Report (TCR) for SR 99 in 2017. (TCR) is a long-term planning document that each Caltrans district prepares for every state highway or portion thereof in its jurisdiction. This document usually represents the first step in Caltrans' long-range corridor planning process. The purpose of a TCR is to determine how a highway will be developed and managed so that it delivers the targeted LOS and quality of operations that are feasible to attain over a 20-year period. These are indicated in the "route concept." In addition to the 20-year route concept level, the TCR includes an "ultimate concept," which is the ultimate goal for the route beyond the 20-year planning horizon. Ultimate concepts must be used cautiously, however, because unforeseen changes in land use and other variables make forecasting beyond 20 years difficult. The SR 99 TCR identifies LOS D as the minimum in the Atwater area.

SB 743. SB 743 requires that as of July 1, 2020 evaluation of transportation impacts under CEQA may no longer be based on consideration of Level of Service and will move to evaluation based on Vehicle Miles Traveled (VMT). Methods for estimating project VMT and for evaluating VMT impacts are outlined in Office of Planning & Research (OPR) directives and are implemented by individual jurisdictions.

Traffic Operations Policy Directive 13-02. Caltrans policy regarding applicable traffic controls has recently been expanded based on Traffic Operations Policy Directive 13-02. This directive requires that Caltrans consider the relative merits of alternative traffic controls when it becomes necessary to stop traffic on state highways. Roundabouts are the default intersection control, but all-way stops and traffic signals are to be considered. The policy directive requires preparation of an *Intersection Control Evaluation (ICE)* to determine the preferred traffic control.

Regional

2030 Merced County General Plan (County of Merced 2013). The GP Circulation Element focuses on providing roadways for growing automobile demands and alternative modes of transportation. This requires improving those alternative modes through regional coordination, improved funding, better land use and design, and fair pricing. The overarching goal of the element seeks a balanced transportation system that moves people and goods in a safe and efficient way that minimizes environmental impacts, supports urban land uses, and serves rural needs.

Policy CIR-1.5: County Level of Service Standards (RDR)

Implement a Countywide roadway system that achieves the following level-of-service (LOS) standards during peak traffic periods:

a) *For roadways located within rural areas: LOS "C" or better.*
b) *For roadways located outside Urban Communities that serve as connectors between Urban Communities: LOS of "D" or better.*
c) *For roadways located within Urban Communities: LOS of "D" or better.*

Based on this guidance the minimum standard on all study area intersections in Winton is LOS D.

Policy CIR-1.6: Level of Service "E" Exception (RDR)

Allow a level of service "E" or worse only on a minor component of the circulation system (such as a left turn movement from a local roadway) if the major component of the circulation system (such as a through movement on a collector or arterial roadway) would be significantly compromised in the process of improving the level of service of the minor component.

Policy CIR-1.22: Complete Streets (RDR)

Require new urban streets within Urban Communities to be designed and constructed to not only accommodate automobile, truck, and bus traffic, but to also serve all users, including pedestrians, bicyclists, and transit passengers of all ages and abilities. This includes:

- *Creating multi-modal street connections in order to establish a comprehensive, integrated, and connected transportation network;*
- *Minimizing curb cuts along non-local streets;*
- *Consider planting street trees adjacent to curbs and between the street and sidewalk to provide a buffer between the pedestrian and the automobile, where appropriate;*
- *Constructing sidewalks on both sides of streets, where feasible;*
- *Coordinating with other agencies and cities to ensure connections are made between jurisdictions; and,*
- *Incorporating traffic calming devices such as roundabouts, bulb-outs at intersections, and traffic tables.*

Policy CIR-1.23: At-Grade Railroad Crossing Guidelines (RDR/IGC/JP)

Work with California Public Utilities Commission (CPUC) and the affected railroads to monitor the effects of development, and implement necessary and applicable design improvements at railroad crossings.

Winton Community Plan. Merced County administers urban land uses within the unincorporated area of the County through Community Plans. Community Plans have been adopted for Delhi, Foxhills, Franklin-Beachwood, Hilmar, Santa Nella and Villages of Laguna San Luis, Planada and La Grande and updates to plans are underway in Winton and Franklin-Beachwood.

Community Plan Section 5.8 Goals and Policies deals with the community's circulation system. This information is incorporated by reference.

Winton Bridge & Major Thoroughfare Area of Benefit. Merced County has adopted individual Bridge and Major Thoroughfare (B&MT) fee programs for Community Plans. B&MT fees have been adopted for Atwater RRC, Delhi, Hilmar, Planada, Santa Nella, Winton Community Plans and Franklin Beachwood SUDP. The Winton Bridge & Major Thoroughfare Area of Benefit was established by the Board of Supervisors on October 18, 1991 to finance road and circulation improvements necessary to support planned growth in the Community of Winton. The fee was last updated on July 1, 2008 through Resolution 2009-120. The 2009 fee update identified the following improvements shown in Table 10. Of these improvements, two traffic signals have been installed at the Winton Way / Gertrude Avenue and Santa Fe Drive / California Avenue intersection.

TABLE 10
2008 WINTON BRIDGE & MAJOR THOROUGHFARE AREA OF BENEFIT PROJECT LIST

#	Description	Cost ($1,000)
1	Santa Fe Drive Widening (from Chestnut to Jones Road)	20,273
2	Santa Fe Drive & Walnut Avenue Signalization	266.8
3	Winton Way & Gertrude Avenue Signalization [1]	352.1
4	Santa Fe Drive & California Street Signalization[1]	266.8
5	Santa Fe Drive & Olive Avenue – Realign Intersection	416.1
6	Winton Way & Walnut Avenue Signalization	256.1
7	Walnut Avenue Improvements (California Street to Vine Avenue)	1,333.8
8	Almond Avenue Improvements (Winton Way to Cypress Avenue)	778.9
9	Winton Way Improvements (Gertrude Avenue to Olive Avenue)	1,888.6
10	Cypress Avenue Improvements (Walnut Avenue to Gertrude Avenue)	1,397.8
11	Jones Road Improvements (Santa Fe Drive to Olive Avenue)	464.1
12	Myrtle Avenue Improvements (Jones Road to California Street)	869.6
13	California Street Improvements (Myrtle Avenue to Santa Fe Drive)	987.0
14	Miscellaneous Infill projects (curb, gutter, sidewalk, etc.)	533.5

[1]Traffic signal installed.

2018 Merced County Regional Transportation Plan (2018 RTP). The Merced County Association of Governments (MCAG), as the federally-designated rural transportation agency and the State-designated regional transportation planning agency (RTPA) for Merced County, is required by both federal and State law to prepare a long-range (at least 20-year) transportation planning document known as a Regional Transportation Plan (RTP). The RTP is an action-oriented document used to achieve a coordinated and balanced regional transportation system. Under both federal and State law, MCAG must update its RTP every five years.

The 2018 RTP demonstrates how MCAG plans to meet the transportation needs of the region for the period from 2016 to 2040, considering existing and projected future land use patterns as well as forecasted population and job growth. The 2018 RTP identifies and prioritize expenditures of anticipated funding for transportation projects that involve all transportation modes. The projects that constitute the 2018 RTP focus on highway, local roadway, aviation, rail, non-motorized transportation, and public transportation.

Walkable Winton Town Center Plan: The Walkable Winton Town Center Plan (WWTCP, January 2019) provides recommendations for physical improvements within the Winton Way corridor to provide a vibrant and walkable town center within the Plan Area by addressing transportation challenges within the corridor. The WWTCP area extends along the Winton Way corridor from Golden Rule Avenue on the south to Myrtle Avenue to the north. It is bound by Center Street on the west and Cottage Street on the east. Conceptual design recommendations are made for roadways, including restriping, sidewalk improvements, bike lanes, parking configurations and "road diets", where road design includes reduced vehicle lanes to provide more space for other transportation facilities, such as bike lanes and/or sidewalk expansion. Most of the recommendations are consistent with the facilities identified in the WCP, and/or would not affect the traffic impacts analyzed in this study (e.g., traffic calming measures that do not reduce the number of lanes on a particular roadway). For example, the WWTCP refers to the priority sidewalks identified in the WCP and suggests that bike routes be provided along Winton Way. Because this traffic study analyzes the effects of the proposed Community Plan, it does not address the recommendations of the WWTCP that differ from the proposed Community Plan with respect to the number of traffic lanes, intersection alignment and similar improvements (e.g., a "road diet" on Winton Way south of Santa Fe Drive; angled parking on Winton Way north of Santa Fe Drive). Such improvements would be evaluated by the County if and when a decision is made to move forward with the improvements.

Regional Transportation Impact Fee. The Merced County Association of Governments (MCAG) administers the Regional Transportation Impact Fee (RTIF) program. Many local governments have or are considering development fee programs to mitigate traffic impacts within their jurisdiction. However, transportation impacts beyond their jurisdictions are not included. The Regional Transportation Impact Fee Program provides additional revenue to mitigate transportation impacts on the regional road network. (http://www.mcagov.org/150/Regional-Transportation-Impact-Fee)

City of Atwater General Plan. The City of Atwater is responsible for streets within the city limits. The City's General Plan does not speak directly to a minimum LOS standard, but the City has directed LOS D be considered the minimum in other traffic studies.

City of Atwater Development Impact Fee Program. In 2003, the City of Atwater adopted a Development Impact Fee program.

Significance Criteria

The following criteria have been used to evaluate the Transportation impacts of the WCP under CEQA.

Vehicle Miles Traveled (VMT) Significance Criteria. Merced County has not yet formally adopted significance criteria for VMT. Consistent with Office of Planning and Research (OPR) guidelines, the project would have a less than significant impact on VMT if the total VMT is reduced by 15 percent.

Significance Criteria for Transit. There are no adopted criteria for determining the significance of impact to transit facilities. For this analysis is has been assumed than a significant impact would occur if development of the project:

- resulted in transit demand in excess of current or anticipated system capacity
- resulted in safety impacts at existing or anticipated transit stops
- interfered with the ability of transit providers to deliver service to the community.

Significance Criteria for Bikeways. There are no adopted criteria for evaluating the "capacity" of bikeways. A significant bikeway impact would occur if the project:

- hindered or eliminated an existing designated bikeway, or
- interfered with implementation of a proposed bikeway, or
- resulted in unsafe conditions for bicyclists, including unsafe bicycle/pedestrian or bicycle/motor vehicle conflicts.

Significance Criteria for Pedestrian Circulation. A significant pedestrian circulation impact would occur if the project:

- resulted in unsafe conditions for pedestrians, including unsafe pedestrian/bicycle or pedestrian/motor vehicle conflicts, or
- interfered with the implementation of an adopted plan for pedestrian facilities.

Significance Criteria for Railroads. A significant impact would occur if the project resulted in traffic volumes across a railroad in excess of the capacity off the roadway or if the operation of an adjoining intersection would likely result in queuing that extended to a crossing. For this analysis the daily traffic volume thresholds at LOS D represent the roadway capacity, and satisfaction of MUTCD traffic signal Warrant 9 represents queueing that could create a safety impact at an adjoining crossing.

PROJECT VEHICLE MILES TRAVELED (VMT) IMPACTS

Background

This analysis quantifies the effects of the WCP project on regional Vehicle Miles Traveled (VMT). These estimates were developed within the context of the direction contained in the California Governor's Office of Planning and Research (OPR)' December 2018 publication, *Technical Advisory on Evaluating Transportation Impacts in CEQA.*

Methods / Assumptions

Merced County Association of Governments Year 2035 Travel Demand Forecasting Model. A "tour-based" approach was taken. The MCAG Year 2035 regional travel demand forecasting model was employed to assist in development of regional traffic volume forecasts for this analysis and is the best available tool for estimating the VMT associated with various land uses in the Winton area. The model's inventory of land uses includes residential and non-resident uses, within an area that covers Merced County and extends north and west into Stanislaus County beyond Turlock and west to Patterson. As a result, model produced VMT estimates include travel in Winton and in the balance of Merced County as well as travel in areas outside of the Merced County boundary. These forecasts respond to OPR direction to avoid limiting VMT estimates based on jurisdictional boundaries.

Approach. Consistent with OPR guidelines, this VMT analysis considers both the changes in daily VMT within the Plan Area and in the region as represented by the MCAG model, which includes Merced County and portions of Stanislaus County. Both the total daily VMT from the model and the daily VMT per a "service population" (VMT/SP) are provided. For this analysis, the service population is the combination of the estimated population and number of employees in the region (e.g., the area covered by the MCAG model).[2] Total VMT is then divided by the service population for each scenario. The service population is based on the existing and projected number of households multiplied by 3.2 persons per household[3]. The number of employees is calculated based on the existing and future square footage for non-residential multiplied by factors from the Merced County General Plan. The results are shown in Table 11.

OPR guidance recommends analyzing the VMT for each land use separately[4]. However, this approach is not feasible for plan-level documents such as the proposed Community Plan, which have a wide variety of land uses (e.g., residential, industrial, office, commercial, schools) across the entire study area. Disaggregating land uses in this context does not reflect the interaction of different types of uses, when the mix can be as important as the type. For example, by increasing employment generating uses by a greater factor than residential uses, the proposed Community Plan improves the jobs/housing balance in the Plan Area and provides the potential

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2 The population estimate is based on the number of households shown in the model, multiplied by a persons per household (pph) factor. Merced County's pph is 3.36. Stanislaus County, a portion of which is included in the model, has a pph of approximately 2.9. This analysis uses a weighted average of 3.2, reflecting that Merced makes up more than half of the land uses in the model. The number of jobs is taken directly from the model.

3 Merced County, *Merced County Housing Element Update*, July 12, 2016, Table 5-11, page 5-23.

4 Governor's Office of Planning and Research, *Technical Advisory on Evaluating Transportation Impacts in CEQA*, December 2018, page 6.

for work trips to be shortened. The MCAG model is an appropriate tool for assessing the effects of the location of a mix of land uses.

TABLE 11 WINTON COMMUNITY PLAN VMT				
Winton Only	**Existing**	**Exiting plus WCP**	**Future without WCP**	**Future plus WCP**
VMT	219,779	468,479	293,075	608,102
Population	10,067	15,629	10,067	15,629
Employees	1,149	4,228	1,149	4,228
Service Population	11,216	19,857	11,216	19,857
VMT / Service Population	19.6	23.6	26.1	30.6
Regional				
VMT[1]	9,391,119	9,580,529	16,286,088	16,346,671
Population	486,707.0	502,336.0	624,482	640,111
Employees	176,869.0	178,018.0	227,824	232,052
Service Population	663,576.0	680,354.0	852,306	872,163
VMT / Service Population	14.2	14.1	19.1	18.7
Winton as a Percentage of MCAG				
VMT	2.3%	4.9%	1.8%	3.7%
Population	2.1%	3.1%	1.6%	2.4%
Employees	0.6%	2.4%	0.5%	1.8%
Service Population	1.7%	2.9%	1.3%	2.3%

Notes: [1]Source: MCAG Year 2035 travel demand forecasting model as modified.
MCAG 2018 Regional Transportation Plan/Sustainable Communities Strategy Draft Program EIR, May 2018.
StanCOG Regional Transportation Plan, Appendix J, May 2018.

It should be noted that the VMT modeling does not take into account those elements of the proposed Community Plan that could reduce vehicle trips, such as extending Class 1 bike paths and Class II bike lanes throughout the WCP Area and adding sidewalks in key areas. The provision of additional sidewalks and bike facilities would facilitate traveling by means other than a vehicle, particularly between home and schools and retail areas. A reduction in the number of trips would partially offset VMT.

PROJECT IMPACTS TO ALTERNATIVE TRANSPORTATION MODES

While the vehicular operating conditions on study area roads are not significance criteria under CEQA, traffic flow is consideration in the evaluation of WCP's impact to alternative transportation modes. Thus, the evaluation which follows makes reference to traffic volumes and Level of Service information that is presented in the following section (Traffic Operating Conditions).

Bikeway Circulation Impacts

Land use development under the WCP would not hinder or eliminate an existing designated bikeway. WCP Goal C-5 works to establish a pedestrian and bicycle friendly environment that includes both on- and off-street pedestrian and bicycle facilities to encourage non-vehicular travel in the community. Policy C-1 calls for new streets to be multi-modal, and Policy C-6 directs that public roadways shall be modified to include the bicycle lanes identified in WCP figure 5.11. With these goals and policies development under the WCP would not interfere with implementation of a proposed bikeway.

Development under the WCP is likely to result in increased numbers of bicycle riders in the community, either as a part local commute activity, as shopping trips to new retail opportunities, as part of travel between area residences and schools or as trips across the BN&SF railroad tracks. Because the volume of traffic on Winton streets will increase, the probability of conflict between automobiles and bicyclists will also increase on those streets where facilities for bicycles are unavailable. The development of a new school will also create the need for bike facilities on the routes to and from the school. Ultimately, the WCP calls for Class II bike lanes on arterial roads such as Santa Fe Drive and Winton Way, as well as other Major Collector roads and these improvements reduce the possibility of conflicts on these major streets. However, because funding for these major improvements is not yet included in the Winton Bridge & Thoroughfare Area of Benefit Plan or other funding source, implementation is uncertain and safety conflicts may still occur. ***This is a significant impact.***

The following mitigation is applicable.

Mitigation T-1. Merced County shall create bicycle facilities on Arterial and on Major Collector Streets that are routes to existing schools, including Santa Fe Drive, Winton Way, Walnut Avenue, Almond Avenue and Cypress Avenue. Merced County shall monitor the location of future schools and identify and install applicable routes for facilities serving new school sites. With this mitigation, the WCP's impact on bicycle circulation is less than significant.

Pedestrian Circulation Impacts

Development under the WCP does not hinder or eliminate an existing pedestrian facility. Because Policy C-1 calls for multi-modal streets, Policy C-5 works to establish a pedestrian friendly environment that includes both on- and off-street pedestrian facilities to encourage non-vehicular travel in the community and Policy C-7 prioritizes Safe Routes to Schools.

Development under the Community Plan does not interfere with implementation of a proposed pedestrian facility.

Development under the WCP will likely result in additional pedestrians walking along the community's streets. Because traffic volumes will increase but current pedestrian facilities are intermittent, without improvements safety conflicts between motor vehicles and pedestrians are likely on arterial streets such as Santa Fe Drive and Winton Way, on key routes to the community's commercial areas and schools, such as Myrtle Avenue, Walnut Avenue and Almond Avenue or across the BN&SF tracks. Ultimately, the WCP calls for sidewalks on Winton's streets, and WCP figure 5.10 prioritizes sidewalks on those streets where the possibility of conflicts is the greatest. However, because funding for these major improvements is not yet identified, safety conflicts may still occur. ***This is a significant impact.***

The following mitigation is applicable.

Mitigation T-2. Merced County shall complete the installation of sidewalks on key streets including Santa Fe Drive, Winton Way, Myrtle Avenue, Walnut Avenue and Almond Avenue. With this mitigation, the WCP's impact on pedestrian circulation is less than significant.

Railroad Crossing Impacts

Winton's existing railroad crossings will carry increased traffic in the future as the area develops, and conflicts between the operation of intersections and adjoining crossings could occur if no improvements are made. Merced County is implementing the Winton Way crossing that will enhance traffic operations and pedestrian safety at this crossing. A pre-signal system will be installed for northbound traffic on Winton Way. In addition, the existing traffic system will be modified to work with modified pedestrian pathways including pedestrian push buttons and heads. Advance preemption will also be installed, and the median islands will be reconstructed. Other pedestrian-oriented improvements include sidewalks, curb and gutter, warning strips, curb ramps, and restriped crosswalks. As part of these improvements, the intersection of Santa Fe Drive and Winton Way would also be improved.[5]

While development of the WCP alone does not result in daily traffic volumes that exceed the LOS D threshold used to identify "at capacity" conditions on the roadways with crossings, under cumulative conditions, the daily volume on Walnut Avenue west of Santa Fe Drive and Shaffer Road south of Santa Fe Drive will exceed the threshold whether the WCP proceeds or not. Traffic volumes on a crossing in excess of the LOS D threshold are a ***significant impact.***

Similarly, the daily traffic volume on Shaffer Road south of Santa Fe Drive will result in LOS in excess of the LOS D standard with and without the project under cumulative conditions.

Development in Winton will add traffic at the Santa Fe Drive / Olive Avenue intersection which lies in close proximity the BN&SF crossing. The existing B&MT fee program includes some funds to realign the eastern approach. However the combination of traffic volume and distance

5 State of California, Department of Transportation, Contract Number 75LX353, November 1, 2019, Exhibit A.

to the crossing will eventually lead to the need to install a traffic signal that is coordinated with the crossing based on satisfaction of MUTCD traffic signal Warrant 9, and this is a ***significant impact.***

The existing Winton Bridge and Major Thoroughfare Area of Benefit includes a new traffic signal at one location that could be linked to the adjoining crossing gates. The WCP calls for evaluation of the need to realign the Santa Fe Drive / Walnut Avenue intersection. A traffic signal is projected to be warranted based on anticipated traffic volumes, and a traffic signal is included in the existing B&MT fee program. The existing B&MT Program also includes funds to realign the Santa Fe Drive / Olive Avenue intersection. However, while additional improvements to address safety issues should be designed in consultation with BNSF and the California Public Utilities Commission (PUC) and implemented, not all improvements near railroad crossings are included in the B&MT Program. Thus, there is no guarantee that all of these improvements will be made, and conflicts may still occur. ***This is a significant Impact.***

To address this issue Merced County will need to continue to monitor conditions at the Winton railroad crossings and work with BNSF and PUC to ensure that applicable improvements are made. The circulation improvements noted in the Community Plan will need to be installed, and these improvements may include modification to current crossings.

Mitigation T-3. Merced County shall provide improvements to the Olive Avenue, Walnut Avenue, and Shaffer Road railroad crossings. Merced County shall incorporate applicable crossing features into the design of future improvements. With this mitigation, the plans impact on Railroads is less than significant.

Transit Impacts. Development under the WCP will increase the population of the community and increase the number of employment opportunities in the community. It is likely than an incremental increase in the demand for transit services will occur. Where adequate transit services are available, 1% to 2% of the total person-trips are made by transit. Based on the WCP's vehicle trip generation forecast and an automobile occupancy of 1.5 persons per vehicle roughly 400 to 800 daily transit boarding could result.

However, based on current transit ridership information, it is unlikely that growth in Winton will immediately result in the demand for ridership in excess of the current system capacity. WCP Policy C-7 directs the creation and maintenance of convenient, safe and efficient public transit services. Policy C-8 directs the location of transit route and stops to locations within reasonable walking distance of high activity uses. Policy C-9 directs the County to work with funding agencies and developers to secure shelter sand seating facilities at stops. It is unlikely that development in the community will result in safety impacts at existing or anticipated transit stops, nor will development in Winton interfere with the ability of transit providers to deliver service to the community. Thus the impacts of implementing the WCP on public transit are less than significant.

WINTON COMMUNITY PLAN EFFECT ON TRAFFIC OPERATIONS

The information which follows is not an evaluation of impacts under CEQA but is presented to facilitate consideration of other impacts to noise, air quality and alternative transportation modes or to support future improvement design or updates to the Winton Bridge and Major Thoroughfare Area of Benefit.

Existing Plus Project Traffic Conditions

Existing Plus Project Volumes. Project trips were superimposed onto the current background traffic. Resulting "Existing Plus Project" traffic volumes are presented in Figures 10a and 10b.

Intersection Levels of Service. Existing Plus Project traffic volumes were used to determine Levels of Service with development of the proposed project and resulting Levels of Service are shown in Table 12. As indicated, there are ten intersections that are projected to operate with a Level of Service that exceeds the General Plan's the minimum LOS D standard, in addition to the currently deficient Santa Fe Drive / Shaffer Road intersection.

As a note, a.m. peak hour conditions in the northwestern Winton area reflect the presence of a new school as noted in the discussion of land uses. If a new school is not developed in that area then the need for improvements to address a.m. peak hour condition should be reevaluated.

Traffic Signal Warrants. As noted in Table 12, peak hour volume traffic signal warrants are projected to be satisfied at seven locations.

Improvement Alternatives. The level of intersection improvement needed to deliver LOS D or better conditions has been identified, discussed below and summarized in Table 13. Figure 11 illustrates these improvements. It is important to note that precise plans for the layout of each intersection have not been developed, and the availability of right of way, particularly along Santa Fe Drive and in already developed areas has not been determined.

7. Cypress Avenue / Walnut Avenue. Construct a westbound left turn lane and install an all-way stop control. This level of improvement can be implemented within the standard Major Collector right of way by eliminating on-street parking in the vicinity of the intersection.

8. Santa Fe Drive / Walnut Avenue. Install a traffic signal with preemption linked to the adjoining railroad crossing. Construct northbound and southbound left turn lanes on Santa Fe Drive. Construct an eastbound right turn lane on Walnut Avenue.

9. Winton Way / Walnut Avenue. Install a traffic signal.

12. Santa Fe Drive / Winton Way. Reconstruct the BN&SF crossing to lengthen northbound right turn lane and install an overlap phase to the right turn lane. This level of improvement would yield LOS D in the a.m. peak hour. While LOS E would remain in the p.m. peak hour the average delay of 58 seconds would be within 3 seconds of the LOS D threshold. Achieving LOS D in the p.m. peak hour would require additional lanes on Santa Fe Drive.

13. Cypress Avenue / Almond Avenue. Install a traffic signal.

17. Winton Way / Gertrude Avenue. Add eastbound and westbound left turn lanes on Gertrude Avenue.

18. Santa Fe Drive / Shaffer Road. Widen Santa Fe Drive to provide two through travel lanes and an eastbound right turn lane, as well as a southbound left turn lane and northbound right turn lane on Shaffer Road. The level of improvement would likely require additional right of way beyond that required to provide the multi-modal facilities needed to achieve WCP goals.

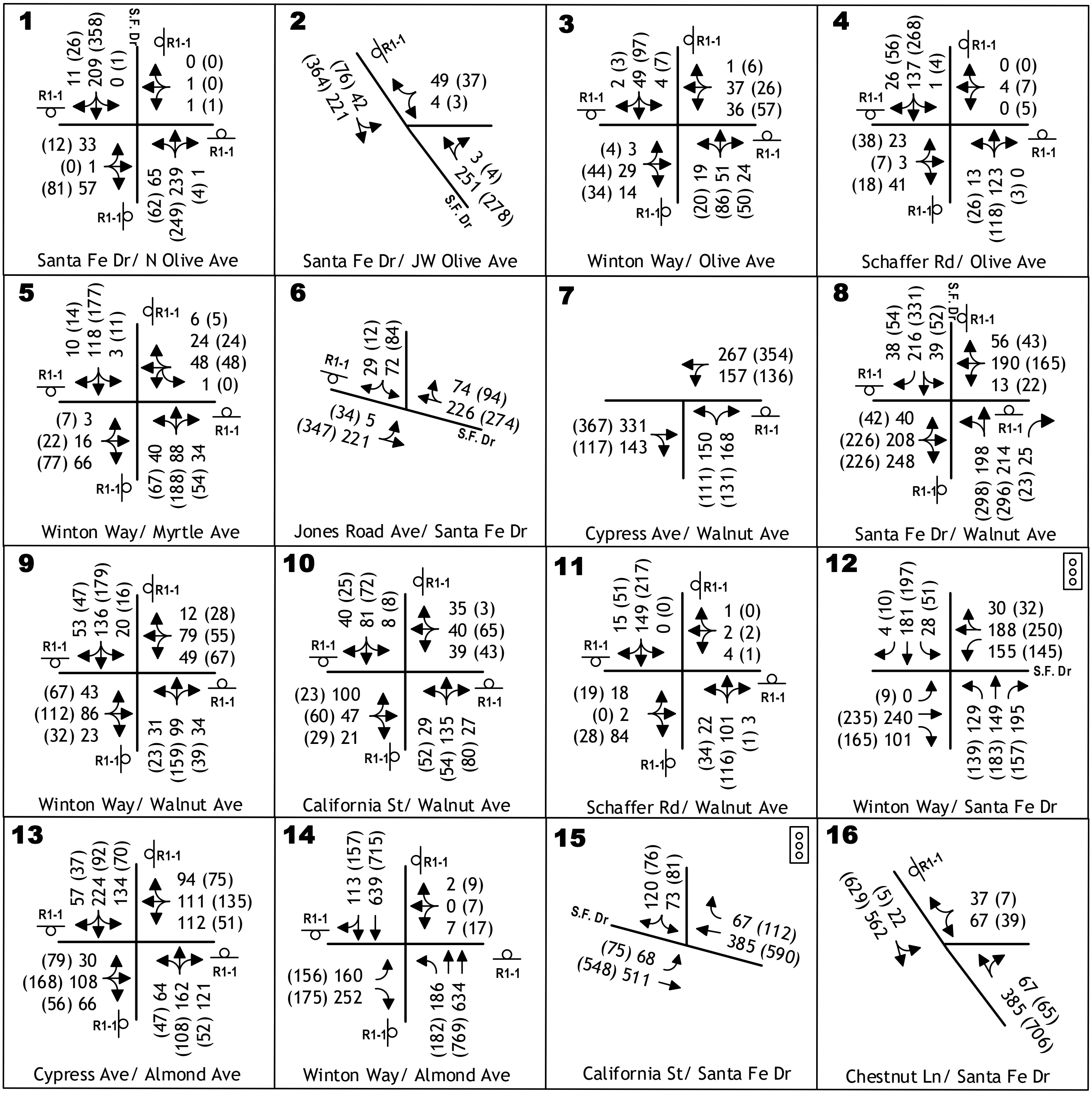
19. Winton Way / Camelia Avenue. Install traffic signal.

21a. Winton Way / Bellevue Road (Atwater). A westbound right turn lane with overlap phase would be needed to deliver LOS D. Right of way would likely be needed, and because the northwest corner of the intersection is developed, the feasibility of this improvement has not been confirmed.

23a. Winton Way / Olive Avenue (Atwater). Install traffic signal.

25a. Winton Way / Sycamore Avenue (Atwater). Construct a second northbound travel lane. The 2018 RTP identifies improvements to the SR 99 / Applegate Road interchange and targets a Year 2030 delivery based on measure V funds. Alternative preliminary layouts have been developed by MCAG, and these alternatives affect the Winton Way / Sycamore Avenue intersection. The feasibility of "interim" improvements is unknown.

Roadway Segments. The daily traffic associated with the WCP has been superimposed onto the background daily traffic volumes counted on the study area roads, as shown in Figure 12. Resulting totals were compared to applicable Level of Service thresholds, and the results are summarized in Table 14. As shown, the addition of the trips generated by the WCP results in one segment where the Level of Service is projected to be in excess of Merced County's minimum LOS D standard. The volume on Santa Fe Drive west of Shaffer Road would result in LOS E.



Legend

XX — AM Peak Hour Volume

(XX) — PM Peak Hour Volume

R1-1 — Stop Sign

Signalized Intersection

XX — Average Daily Traffic

XX — Intersections located in Winton, CA

N.T.S.

EXISTING PLUS PROJECT TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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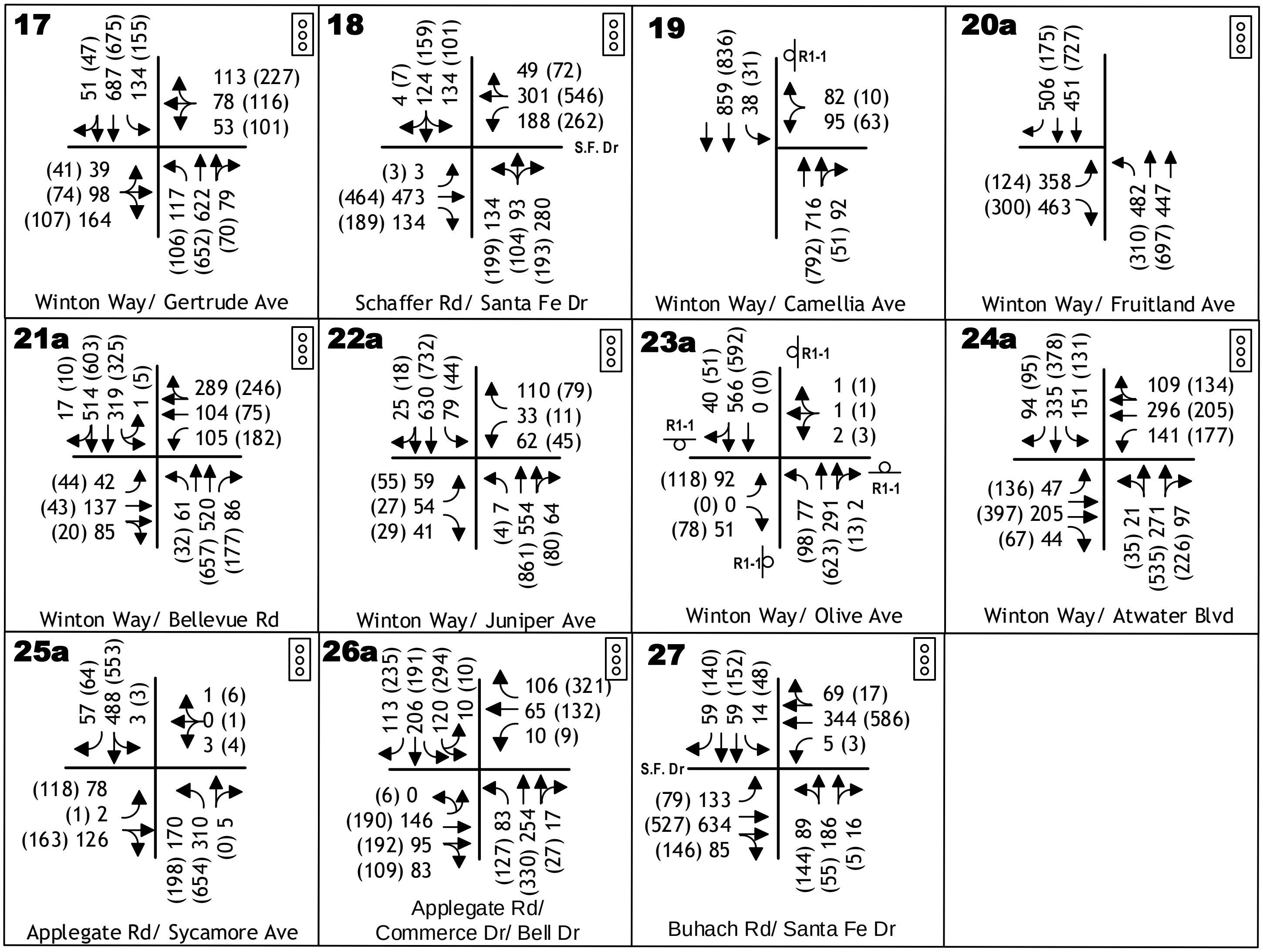
figure 10a



Legend

XX AM Peak Hour Volume
(XX) PM Peak Hour Volume
R1-1 Stop Sign
Signalized Intersection
XX Average Daily Traffic
XXa Intersections located in Atwater, CA

NORTH
N.T.S.

EXISTING PLUS PROJECT TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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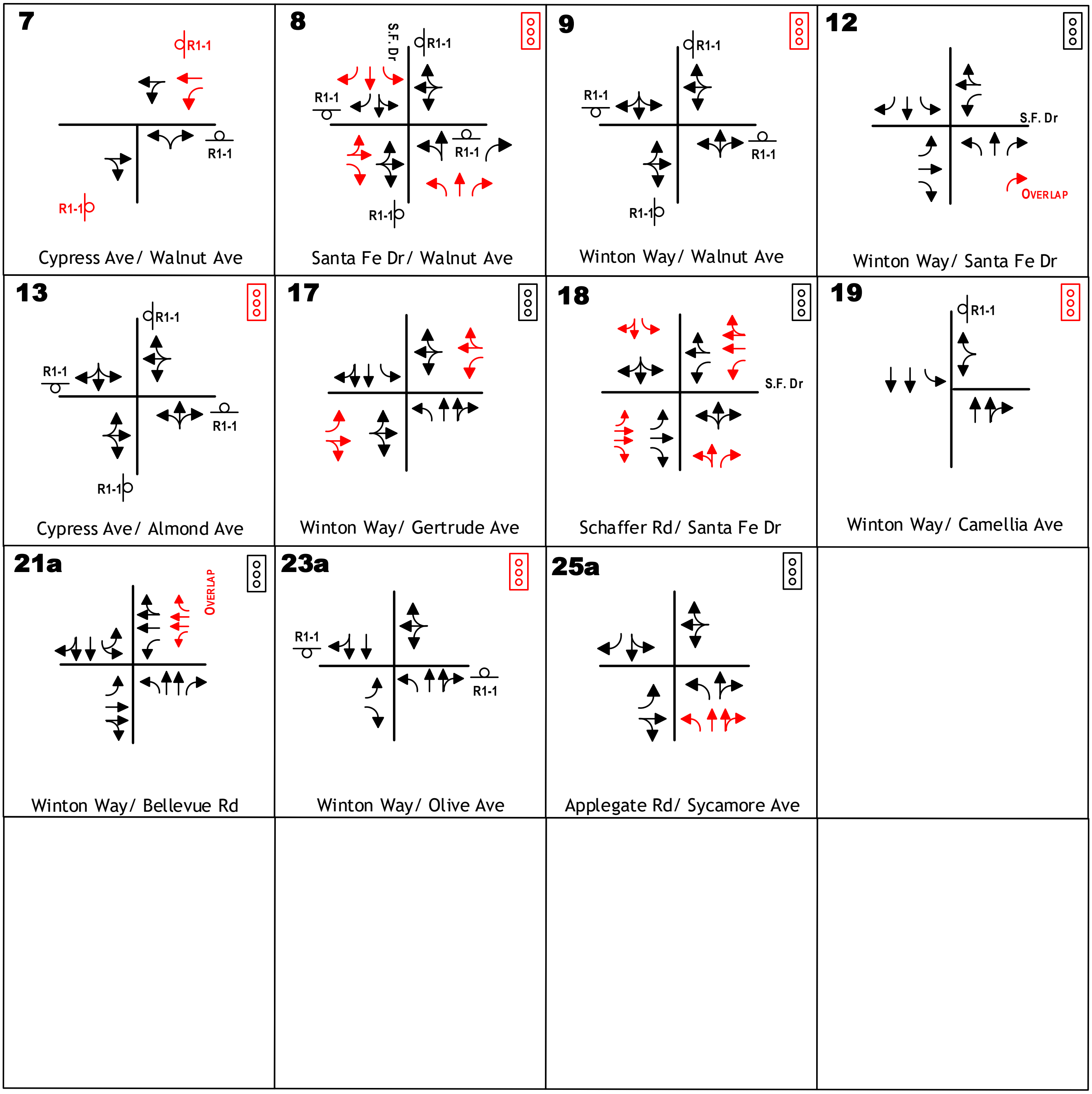
figure 10b



NORTH
N.T.S.

Legend

Existing Geometry
Improved Geometry
R1-1 Stop Sign
Signalized Intersection
XX Average Daily Traffic
XXa Intersections located in Atwater, CA

IMPROVED EXISTING PLUS PROJECT
LANE CONFIGURATIONS AND TRAFFIC CONTROLS

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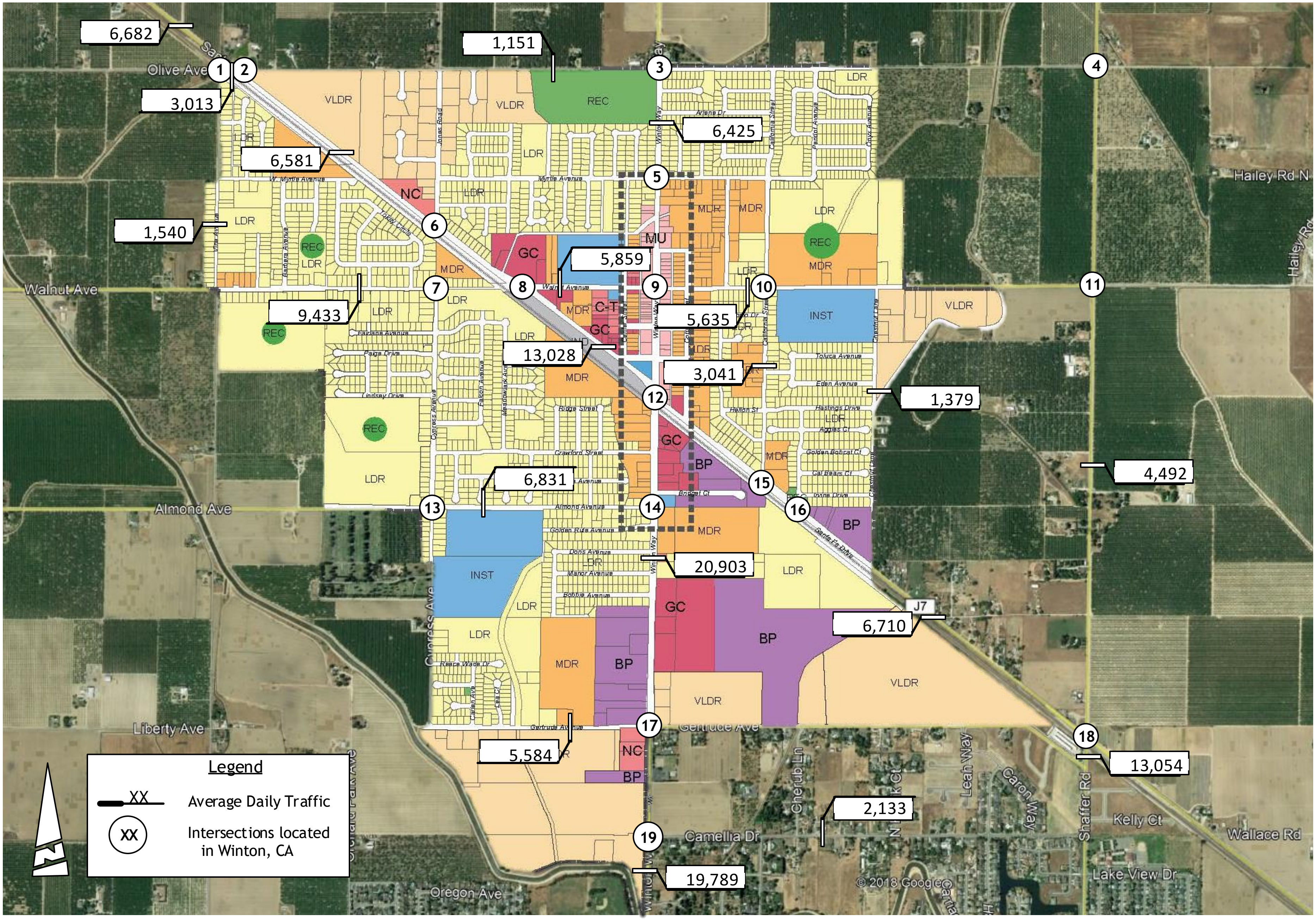
figure 11



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EXISTING PLUS PROJECT AVERAGE DAILY TRAFFIC VOLUMES

figure 12

TABLE 12
EXISTING PLUS WCP INTERSECTION LEVEL OF SERVICE

Intersection	Jurisdiction	Control	Existing								Traffic Signal Warrants Met?
			AM Peak Hour				PM Peak Hour				
			Existing		Ex Plus WCP		Existing		Ex Plus WCP		
			Avg Delay (sec/veh)	LOS	Avg Delay (sec/veh)	LOS	Avg Delay (sec/veh)	LOS	Avg Delay (sec/veh)	LOS	
Santa Fe Dr / N. Olive Ave	Merced County	SSS[1]	12	B	13	B	11	B	13	B	Yes[4]
Santa Fe Dr / S. Olive Ave	Merced County	SSS	10	B	10	B	10	B	11	B	Yes[4]
Winton Way / Olive Ave	Merced County	AWS[2]	7	A	8	A	8	A	9	A	No
Schaffer Rd / Olive Ave	Merced County	AWS	8	A	8	A	10	B	11	B	No
Winton Way / Myrtle Ave	Merced County	AWS	8	A	9	A	9	A	10	B	No
Santa Fe Dr / Jones Road	Merced County	SSS	12	B	13	B	14	B	19	C	No
Cypress Ave / Walnut Ave	Merced County	SSS	16	C	**266**	**F**	14	B	**91**	**F**	Yes
Santa Fe Dr / Walnut Ave	Merced County	AWS	26	D	**156**	**F**	22	C	**185**	**F**	Yes
Winton Way / Walnut Ave	Merced County	AWS	11	B	**55**	**F**	12	B	**75**	**F**	Yes
California St / Walnut Ave	Merced County	AWS	11	B	17	C	9	A	11	B	No
Schaffer Rd / Walnut Ave	Merced County	AWS	9	A	9	A	10	B	11	B	No
Santa Fe Dr / Winton Way	Merced County	Signal	21	C	**57**	**E**	20	C	**71**	**E**	-
Cypress Ave / Almond Ave	Merced County	AWS	16	C	**170**	**F**	9	A	14	B	Yes
Winton Way / Almond Ave	Merced County	Signal	9	A	19	B	8	A	14	B	-
Santa Fe Dr / California St	Merced County	Signal	11	B	12	B	10	B	13	B	-
Santa Fe Dr / Chestnut Lane	Merced County	SSS	17	C	31	D	18	C	41	E[3]	Yes
Winton Way / Gertrude Ave	Merced County	Signal	20	B	**64**	**E**	18	B	**84**	**F**	-
Santa Fe Dr / Shaffer Rd	Merced County	Signal	**59**	**E**	**165**	**F**	43	D	**134**	**F**	-
Winton Way / Camelia Ave	Merced County	SSS	19	C	**39**	**E**	16	C	24	C	Yes
Winton Way / Fruitland Ave	City of Atwater	Signal	33	C	53	D	11	B	12	B	-
Winton Way / Bellevue Rd	City of Atwater	Signal	27	C	**64**	**E**	23	C	44	D	-
Winton Way / Juniper Ave	City of Atwater	Signal	16	B	18	B	14	B	16	B	-
Winton Way / Olive Ave	City of Atwater	AWS	14	B	20	C	25	D	**62**	**F**	Yes
Winton Way / Atwater Blvd	City of Atwater	Signal	23	C	29	C	32	C	50	D	-
Winton Way / Sycamore Ave	City of Atwater	Signal	16	B	20	B	44	D	**79**	**E**	-
Applegate Rd / Commerce Dr	City of Atwater	Signal	17	B	17	B	25	C	30	C	-
Santa Fe Dr / Buhach Road	Merced County	Signal	21	C	15	C	18	B	24	C	-

[1] Side Street Stop control. [2] All-Way Stop Control **Highlighted values** exceed minimum LOS D. [3] LOS E accepted on side street under General Plan Policy. [4] signal warranted based on railroad crossing proximity but not peak hour volume

TABLE 13 EXISTING PLUS WCP IMPROVEMENT REQUIREMENTS											
Intersection	**Jurisdiction**	**Control**	**AM Peak Hour**								
			Existing Plus Project				**Improvement**	**Existing Plus Project W Improvements**			
			AM Peak Hour		**PM Peak Hour**			**AM Peak Hour**		**PM Peak Hour**	
			Average Delay (sec/veh)	**LOS**	**Average Delay (sec/veh)**	**LOS**		**Average Delay (sec/veh)**	**LOS**	**Average Delay (sec/veh)**	**LOS**
Cypress Ave / Walnut / Ave	Merced County	SSS	**266**	**F**	**91**	**F**	All Way Stop WB left turn lane	33	D	17	B
Santa Fe Dr / Walnut Ave		AWS	**156**	**F**	**185**	**F**	Signal, NB / SB left, EB right turn	20	B	19	B
Winton Way / Walnut Ave		AWS	**55**	**F**	**75**	**F**	Signal	10	B	9	A
Santa Fe Dr / Winton Way		Signal	**57**	**E**	**71**	**E**	Widen crossing to lengthen NB right turn lane, add overlap phase	50	D	**58**	**E**
Cypress Ave / Almond Ave		AWS	**170**	**F**	14	B	Signal	20	C		
Winton Way / Gertrude Ave		Signal	**64**	**E**	**84**	**F**	EB/WB left turn lanes	30	C	32	C
Santa Fe Dr / Shaffer Rd		Signal	**165**	**F**	**134**	**F**	4-lane Santa Fe Drive EB right, SB left and NB right turn lane	31	C	36	D
Winton Way / Camelia Ave		SSS	**39**	**E**	24	C	Traffic Signal	12	B		
Winton Way / Bellevue Rd	Atwater	Signal	**64**	**E**	44	D	WB right turn lane w/ overlap phase	26	C		
Winton Way / Olive Ave		AWS	20	C	**62**	**F**	Traffic Signal			9	A
Winton Way / Sycamore Ave		Signal	20	B	**79**	**E**	2nd NB thru lane			31	C

Highlighted cells exceed minimum LOS D.
Note: this list does not include improvements required to Santa Fe Drive / Olive Avenue intersections based on impacts to railroad crossing.

TABLE 14
EXISTING PLUS PROJECT ROADWAY SEGMENT LEVEL OF SERVICE

Street	Location	Jurisdiction	Class	Lanes	Existing		Existing Plus WCP		
					Daily Volume	LOS	Daily Volume		LOS
							Winton Growth	Total	
Winton Way	Fruitland Ave to Gertrude Ave	Merced County	Minor Art	4	13,634	C	5,925	19,559	C
Winton Way	Gertrude Ave to Santa Fe Dr	Merced County	Minor Art	4	11,401	C	8,810	20,211	C
Winton Way	Santa Fe Dr to Olive Ave	Merced County	Minor Art	2	5,281	C	2,255	7,536	D
Santa Fe Dr	Winton Way to Shaffer Rd	Merced County	Principal Art	2	9,738	D	4,335	14,073	E
Walnut Ave	Vine Ave to Santa Fe Dr	Merced County	Major Col	2	6,251	D	2,965	9,216	D
Walnut Ave	Santa Fe Dr to Winton Way	Merced County	Major Col	2	3,849	C	1,815	5,664	D
Walnut Ave	Winton Way to California Ave	Merced County	Major Col	2	3,139	C	2,365	5,504	D
Almond Ave	Cypress Ave to Winton Way	Merced County	Major Col	2	2,271	C	4,270	6,541	D
California St	Santa Fe Dr to Walnut Ave	Merced County	Major Col	2	2,558	C	330	2,888	C
Shaffer Rd	Walnut Ave to Santa Fe Dr	Merced County	Minor Coll	2	4,334	C	335	4,669	C
Shaffer Rd	Santa Fe Dr to Gertrude Ave	Atwater	Major Art	2	9,313	D	3,515	12,828	D

Highlighted values exceed LOS D

LONG TERM TRAFFIC CONDITIONS

The effects implementing the proposed WCP have also been assessed within the context of conditions occurring in the Year 2035 with the effects of regional growth and circulation system improvements.

Regional Assumptions

Land Use. The land uses incorporated into the MCAG Year 2035 regional traffic model were the initial basis for the long-term analysis. These forecasts represent regional land use assumptions that were made for the 2016 Regional Transportation Plan update. According to MCAG staff these land use assumptions are also consistent with those made for the 2018 RTP update.

In addition to the traffic model's land use base, one additional approved development project was added. The City of Atwater's ***Ferrari Ranch Annexation*** covers 300 acres in eastern Atwater between Santa Fe Drive and SR 99 which straddle the Atwater Merced Expressway (AME). This project's EIR indicated buildout of the Ferrari Ranch Annexation would add 79,000 daily trips to the area circulation system. This project has proceeded slowly, and no development has yet occurred. Based on input provided by the City of Atwater this analysis assumed that 120 industrial acres would be developed in the long-term analysis.

Circulation System Improvements. Based on review of the 2018 RTP (Table 10.2 – 2018 RTP/SCS Tier I Project List) and consultation with Merced County staff the following circulation system improvements were incorporated into the traffic model:

- Atwater Merced Expressway (AME) completed to Bellevue Road (2025: SB 1, Measure V, local)
- SR 99 widened to six lanes through the Atwater-Merced area (2024-2035; STIP, TCEP (SB1)
- Campus Parkway constructed northly to Yosemite Avenue (2023: SB 132)

As noted earlier, the 2018 RTP also identifies improvements to the SR 99 / Applegate Road interchange. Because alternative designs for this improvement are available but a choice has not been made, this analysis conservatively assumed the interchange has not been reconstructed in illustrating the traffic volume effects of the WCP.

Long Term Traffic Volume Forecasts

Approach to Developing Forecasts. The MCAG traffic model was run under No Project and Plus Project Conditions to prove a basis for future traffic volumes. No project condition assumes that no growth occurs in Winton and that existing development levels remain into the future. The Plus Project condition added the growth permitted under the WCP to create a scenario that assumes buildout of the community under the WCP.

Daily Traffic Volumes. Table 15 identifies Long Term daily traffic volumes on study area roads with and without WCP. As indicated appreciable increase over existing conditions are projected with and without implementation of the WCP. In some instances traffic volume forecasts without the WCP exceed those anticipated with implementation of the WCP. This results because of the effects of at-capacity conditions on some roadways within the regional traffic model. The model's trip assignment process incrementally reviews the status of traffic flow as trips are assigned and redirects traffic to the least time path. Thus, some Winton streets are found to be more attractive routes for through traffic if the WCP is not developed than they would otherwise be if the WCP proceeds.

Levels of Service. As indicated in Table 15, three study area roadway segments are projected to operate with Levels of Service in excess of the LOS D minimum standard under long term conditions with and without the WCP.

Santa Fe Drive from Winton Way to Shaffer Road. This two-lane roadway is projected to operate at LOS F whether the WCP proceeds or not. A four-lane facility would be required to meet the LOS D standard, but this level of improvement would not be consistent with the available right of way through Winton and the WCP's intent to provide a multimodal facility with sidewalks and bike lanes within the available right of way. LOS F conditions are consistent with the findings of the Merced County General Plan EIR (GP EIR) which identified LOS F for the segment outside the WCP area from Chestnut Lane to Shaffer Road. The GPEIR considered the effects of regional mitigation but ultimately rejected the alternative of widening Santa Fe Drive west of Shaffer Road.

Walnut Avenue from Vine Avenue to Winton Way. This two-lane roadway is projected to exceed LOS D with and without the WCP. A four-lane facility would be needed to achieve LOS D. This level of improvement would not be consistent with the available right of way, and residential development already exists along Walnut Avenue. A four-lane facility would not be consistent with the WCP's goals for a multimodal facility offering bike lanes and sidewalks on Walnut Avenue within the available right of way.

Shaffer Road south of Santa Fe Drive. The two-lane segment of Shaffer Road immediately south of Santa Fe Drive would operate at LOS F with and without the WCP. A four-lane facility is needed to meet the LOS D standard. A four-lane facility is consistent with the City of Atwater General Plan Circulation Element and would be consistent with the width of Shaffer Road further south. However, the feasibility of widening the BN&SF crossing to accommodate additional lanes and increase roadway capacity is unknown.

TABLE 15
LONG TERM DAILY TRAFFIC VOLUMES AND LEVEL OF SERVICE

Street	Location	Class	Lanes	Existing		Long Term No WCP		Long Term with WCP	
				Daily Volume (ADT)	LOS	Daily Volume (ADT)	LOS	Daily Volume (ADT)	LOS
Winton Way	Fruitland Ave to Gertrude Ave	Minor Art	4	13,634	C	18,060	C	22,620	D
Winton Way	Gertrude to Santa Fe Dr	Minor Art	4	11,401	C	16,960	C	22,580	D
Winton Way	Santa Fe Dr to Olive Ave	Minor Art	2	5,281	C	8,590	D	7,850	D
Santa Fe Dr	Winton Way to Shaffer Rd	Principal Art	2	9,738	D	16,220	F	15,280	F
Walnut Ave	Vine Ave to Santa Fe Dr	Major Col	2	6,251	D	16,520	F	13,870	E
Walnut Ave	Santa Fe Dr to Winton Way	Major Col	2	3,849	C	4,970	D	9,140	D
Walnut Ave	Winton Way to California Ave	Major Col	2	3,139	C	7,050	D	8,640	D
Almond Ave	Cypress Ave to Winton Way	Major Col	2	2,271	C	8,010	D	8,400	D
California St	Santa Fe Dr to Walnut Ave	Major Col	2	2,558	C	3,300	C	2,990	C
Shaffer Rd	Walnut Ave to Santa Fe Dr	Minor Collector	2	4,334	C	12,070	D	8,670	D
Shaffer Rd	Santa Fe Dr to Gertrude Ave	Major Art	2	9,313	D	17,040	F	16,850	F

Highlighted values exceed LOS D

Peak Hour Intersection Levels of Service

Traffic Volumes. Figures 13a and 13b present long term future a.m. and p.m. peak hour traffic volumes at study intersections assuming that no development proceeds in Winton, while Figures 14a and 14b present peak hour traffic volumes assuming that the WCP is implemented and development proceeds to build out. Year 2035 No Project volumes were created by interpolating current peak hour traffic volume increased from the directional daily background growth increment. Year 2035 Plus Project volumes were created by subtracting Winton traffic from the Year 2025 plus WCP traffic model run, interpolating peak hour forecasts and onto that baseline superimposing trips associated with Winton growth.

Intersection Levels of Service. Table 16 summarizes the peak hour Levels of Service projected for study intersections under Long Term conditions with and without implementation of the WCP. As indicated, if no new development occurs in Winton, then through traffic on study area streets will result in conditions in excess of LOS D at 11 intersections. If the WCP is built, then 14 intersections will operate with conditions in excess of LOS D.

Traffic Signal Warrants. Eight intersections carry volumes that satisfy peak hour traffic signal warrants.

Long Term Improvement Alternatives. The level of intersection improvement needed to deliver LOS D or better conditions has been identified, discussed below and summarized in Table 17. Figure 15 illustrates these improvements. It is important to note that precise plans for the layout of each intersection have not been developed, and the availability of right of way, particularly along Santa Fe Drive and in already developed areas has not been determined.

In seven locations the same improvements described for the Existing Plus WCP scenario are adequate for long term conditions. These locations include:

- ***9. Winton Way / Walnut Avenue***
- ***13. Cypress Avenue / Almond Avenue***
- ***17. Winton Way / Gertrude Avenue***
- ***19. Winton Way / Camelia Avenue***
- ***21a. Winton Way / Bellevue Road (Atwater)***
- ***23a. Winton Way / Olive Avenue (Atwater)***
- ***25a. Winton Way / Sycamore Avenue (Atwater)***

The following improvements which differ from those presented earlier will also be needed to deliver LOS D.

7. Cypress Avenue / Walnut Avenue. Install a traffic signal with westbound and northbound left turn lanes.

8. Santa Fe Drive / Walnut Avenue. Install a traffic signal with preemption linked to the adjoining railroad crossing. Construct northbound and southbound left turn lanes on Santa Fe Drive. Construct an eastbound right turn lane on Walnut Avenue and on northbound Santa Fe Drive.

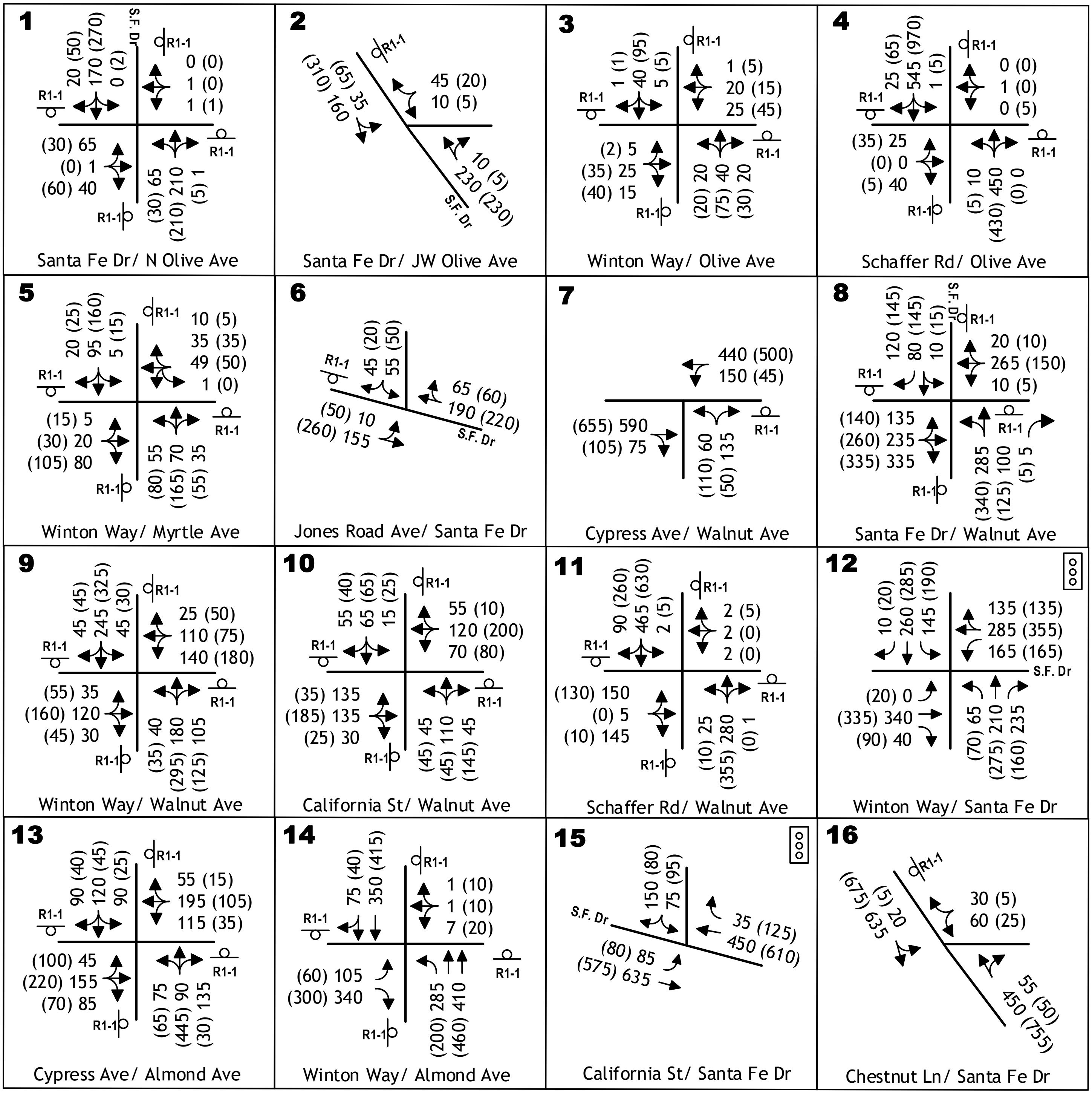
11. Shaffer Road / Walnut Avenue. Construct a southbound right turn lane.

12. Santa Fe Drive / Winton Way. Reconstruct the BN&SF crossing to lengthen northbound right turn lane and install an overlap phase to the right turn lane. This level of improvement would yield LOS D in the a.m. peak hour. While LOS E would remain in the p.m. peak hour the average delay of 60 seconds would be within 5 seconds of the LOS D threshold. Achieving LOS D in the p.m. peak hour would require additional lanes on Santa Fe Drive.

18. Santa Fe Drive / Shaffer Road. Widened Santa Fe Drive to provide two through travel lanes and right turn lanes in each direction, as well as a northbound right turn lane on Shaffer Road. The level of improvement would likely require additional right of way beyond that required to provide the multi-modal facilities needed to achieve WCP goals.

20a. Winton Way / Fruitland Avenue. Add an overlap phase the southbound right turn lane.

24a Winton Way / Atwater Blvd. At this location prohibiting the few northbound left turns that occur today would allow the intersection to run with conventional protected left turn phasing and concurrent northbound and southbound through traffic. The 2018 RTP identifies improvements to the SR 99 / Applegate Road interchange and targets a year 2030 deliver based on measure V funds. Alternative preliminary layouts have been developed by MCAG, and these alternatives affect the Winton Way / Atwater Blvd intersection. The feasibility of “interim” improvements is unknown.



Legend

- XX AM Peak Hour Volume
- (XX) PM Peak Hour Volume
- R1-1 Stop Sign
- Signalized Intersection
- XX Average Daily Traffic
- XX Intersections located in Winton, CA

NORTH

N.T.S.

CUMULATIVE WITHOUT PROJECT TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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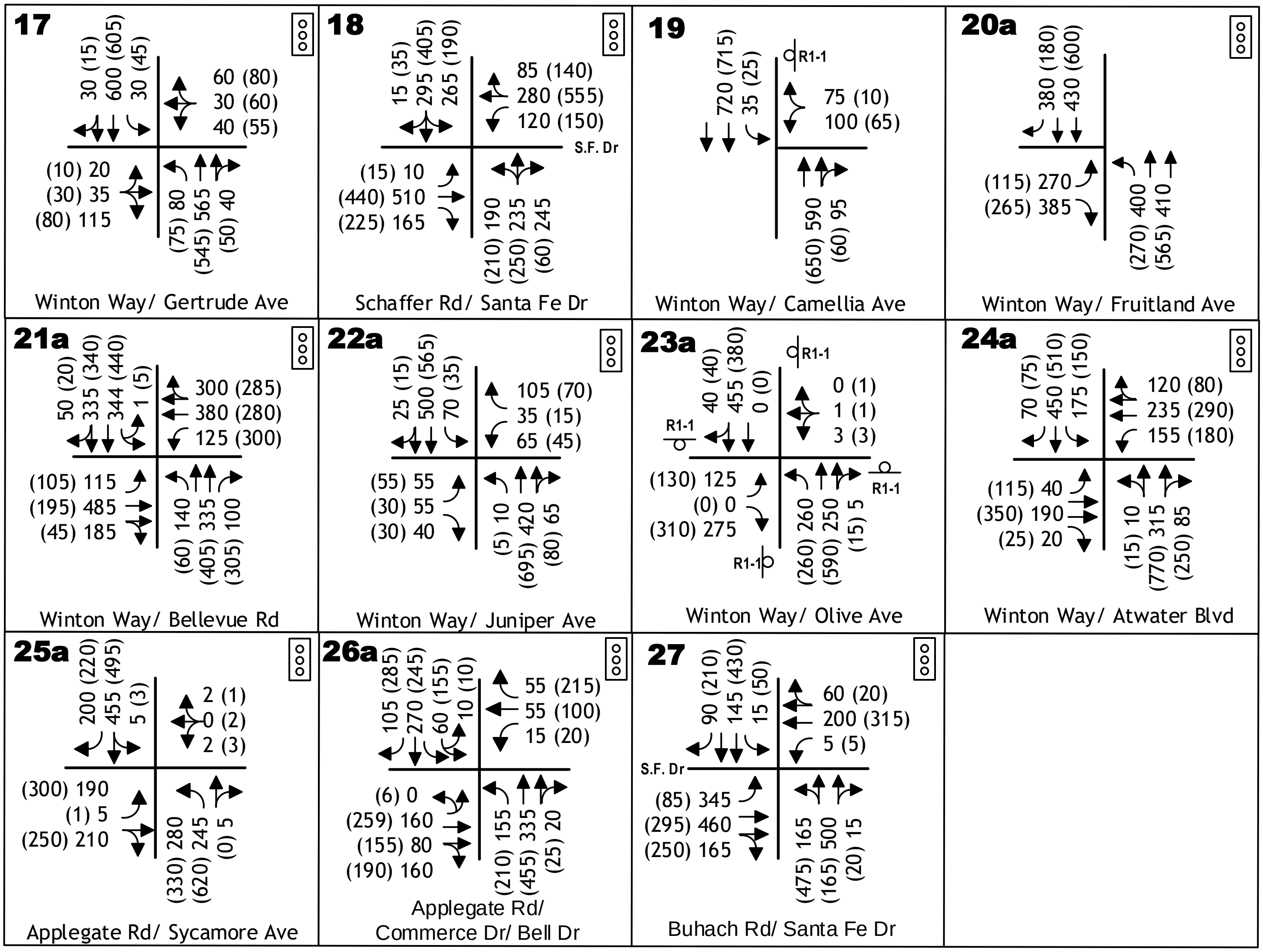
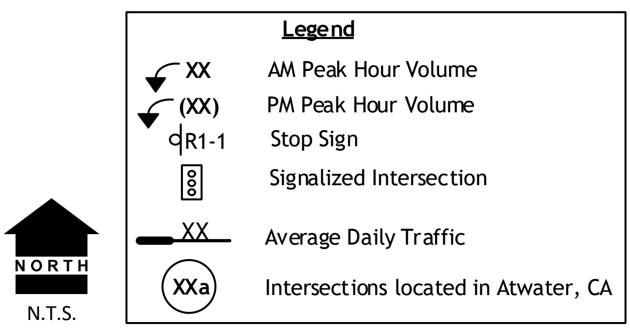
figure 13a





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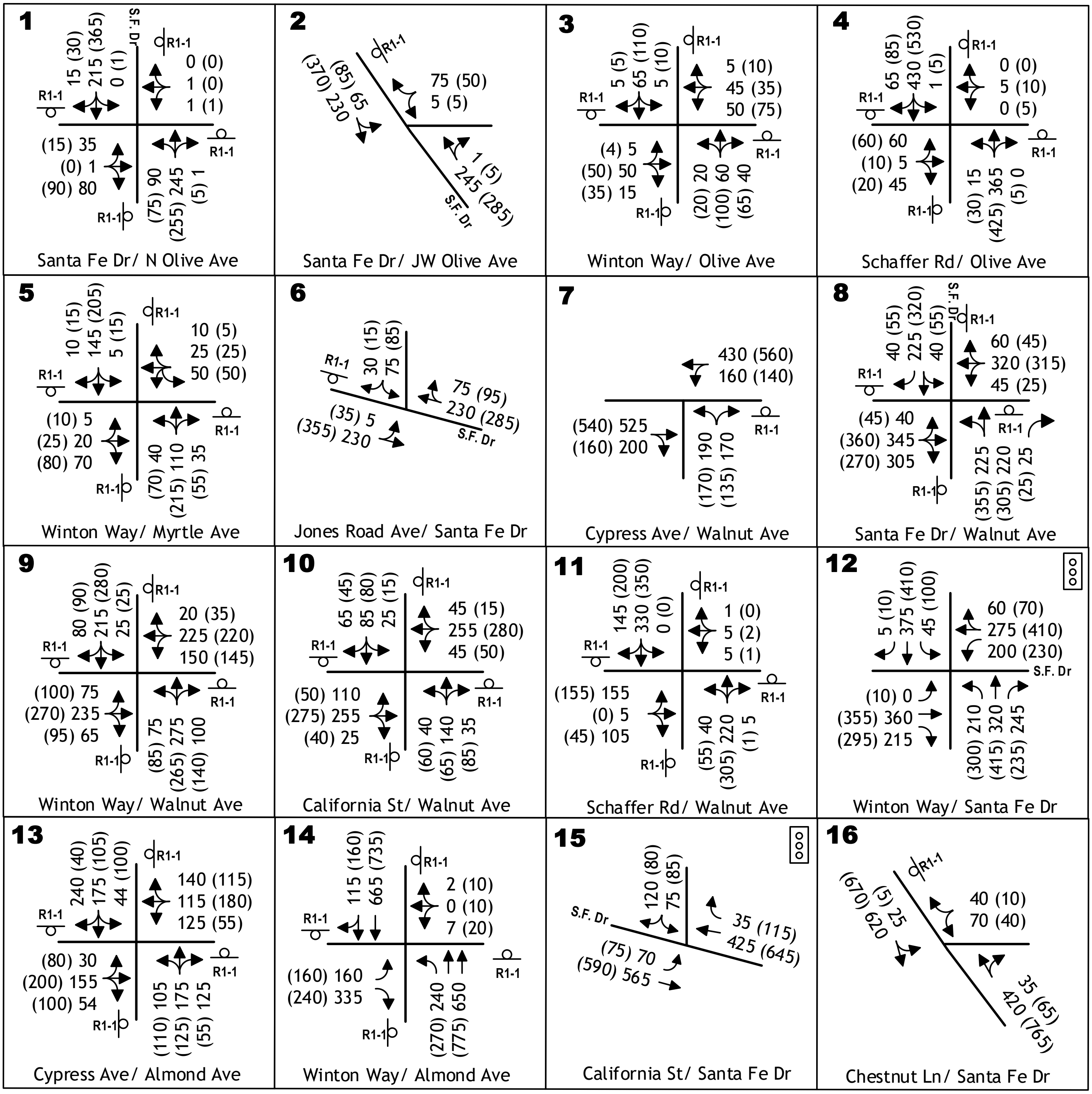
CUMULATIVE WITHOUT PROJECT TRAFFIC VOLUMES AND LANE CONFIGURATIONS

3490-05 RA 7/27/2020

figure 13b



Legend

XX AM Peak Hour Volume

(XX) PM Peak Hour Volume

R1-1 Stop Sign

Signalized Intersection

XX Average Daily Traffic

XX Intersections located in Winton, CA

N.T.S.

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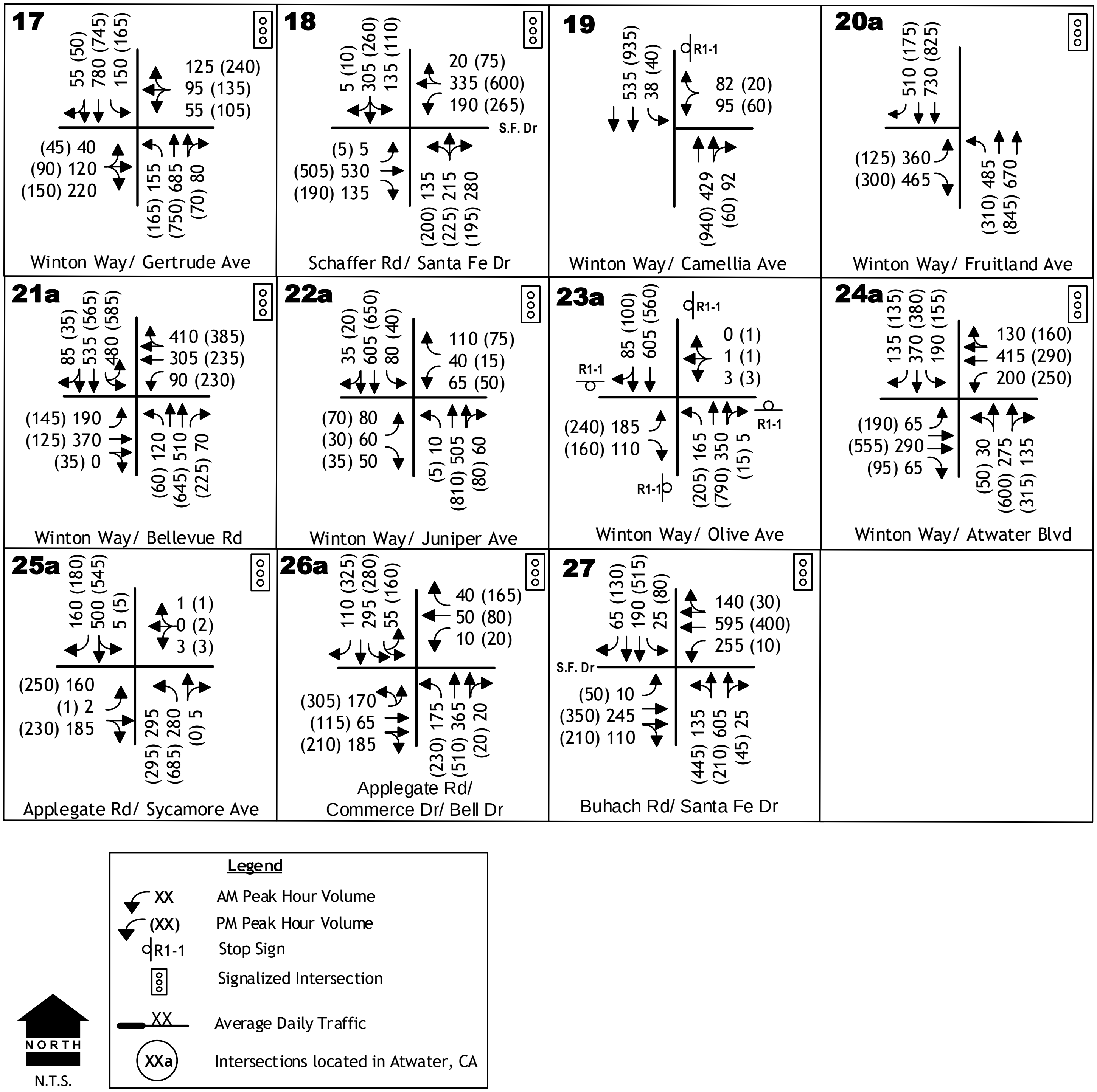
CUMULATIVE PLUS PROJECT TRAFFIC VOLUMES AND LANE CONFIGURATIONS

figure 14a



CUMULATIVE PLUS PROJECT TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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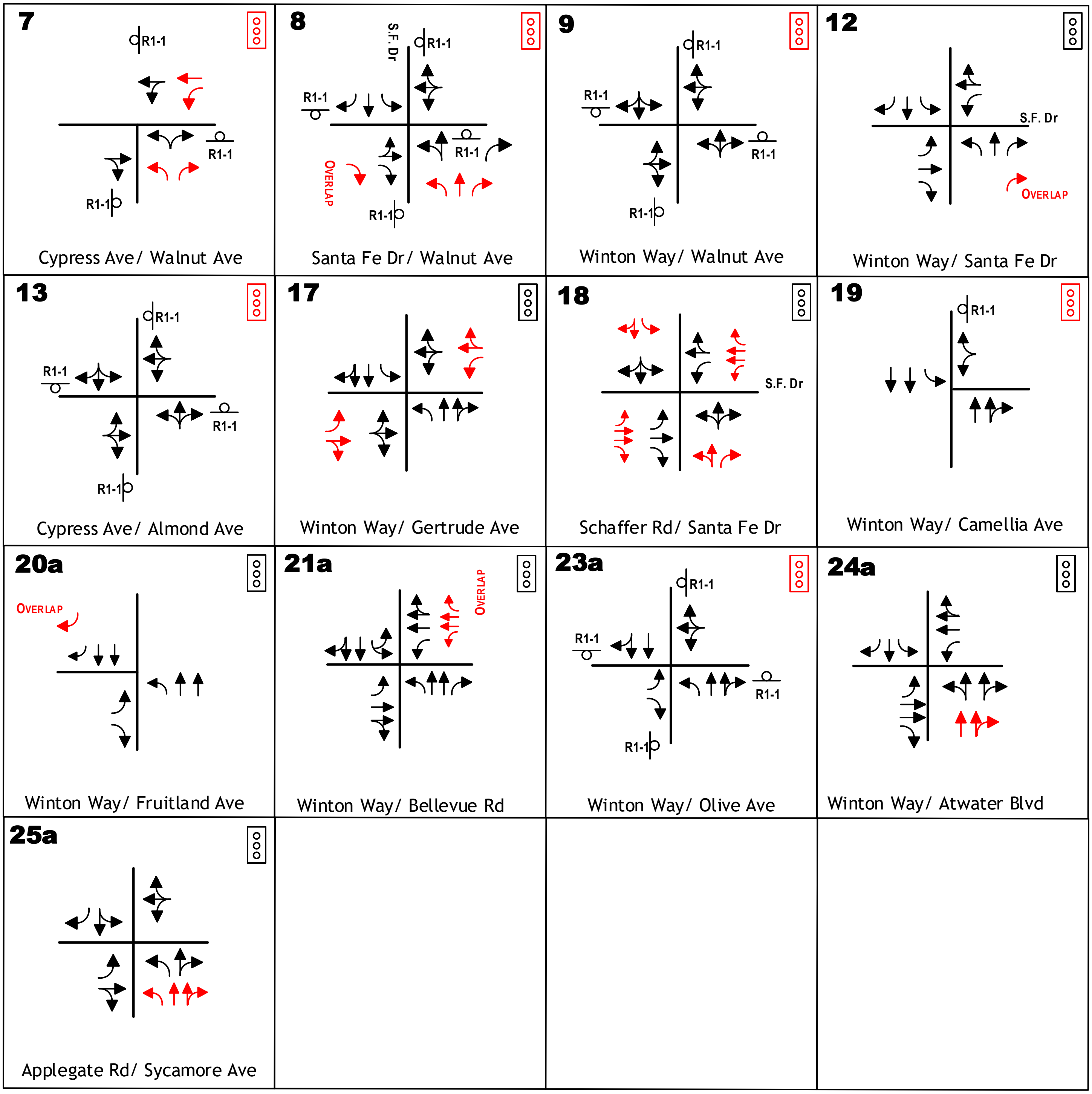
figure 14b



Legend

Existing Geometry

Improved Geometry

R1-1 Stop Sign

Signalized Intersection

XX Average Daily Traffic

XXa Intersections located in Atwater, CA

NORTH

N.T.S.

IMPROVED LONG TERM PLUS PROJECT

LANE CONFIGURATIONS AND TRAFFIC CONTROLS

KD Anderson & Associates, Inc.
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3490-05 RA 7/27/2020

figure 15

TABLE 16
LONG TERM EXISTING INTERSECTION LEVEL OF SERVICE

Intersection	Jurisdiction	Control	Long Term Conditions								Traffic Signal Warrants Met?
			AM Peak Hour				PM Peak Hour				
			No WCP		With WCP		No WCP		With WCP		
			Avg Delay (sec/veh)	LOS	Avg Delay (sec/veh)	LOS	Avg Delay (sec/veh)	LOS	Avg Delay (sec/veh)	LOS	
Santa Fe Dr / N. Olive Ave	Merced County	SSS[1]	15	B	18	C	13	B	14	B	Yes[4]
Santa Fe Dr / S. Olive Ave		SSS	11	B	11	B	11	B	11	B	Yes[4]
Winton Way / Olive Ave		AWS[2]	8	A	8	A	8	A	9	A	No
Schaffer Rd / Olive Ave		AWS	19	C	15	A	**71**	**F**	32	D	No
Winton Way / Myrtle Ave		AWS	9	A	9	A	11	B	11	B	No
Santa Fe Dr / Jones Road		SSS	12	B	13	B	14	B	19	C	No
Cypress Ave / Walnut Ave		SSS	**146**	**F**	**136**	**F**	**158**	**F**	**881**	**F**	Yes
Santa Fe Dr / Walnut Ave		AWS	**179**	**F**	**239**	**F**	**170**	**F**	**336**	**F**	Yes
Winton Way / Walnut Ave		AWS	**72**	**F**	**247**	**F**	**76**	**F**	**180**	**F**	Yes
California St / Walnut Ave		AWS	12	B	18	C	13	B	17	B	No
Schaffer Rd / Walnut Ave		AWS	25	D	16	A	**84**	**F**	**42**	**E**	Yes
Santa Fe Dr / Winton Way		Signal	34	C	**68**	**E**	35	D	**81**	**F**	-
Cypress Ave / Almond Ave		AWS	**146**	**F**	**230**	**F**	**46**	**E**	34	D	Yes
Winton Way / Almond Ave		Signal	30	C	35	D	15	B	22	C	-
Santa Fe Dr / California St		Signal	14	B	12	B	14	B	15	B	-
Santa Fe Dr / Chestnut Lane		SSS	38	E	39	E	41	D	50	E[3]	Yes
Winton Way / Gertrude Ave		Signal	23	B	**93**	**F**	21	C	**91**	**F**	-
Santa Fe Dr / Shaffer Rd		Signal	**322**	**E**	**253**	**F**	**259**	**F**	**208**	**F**	-
Winton Way / Camelia Ave		SSS	28	D	**66**	**F**	20	C	29	C	Yes
Winton Way / Fruitland Ave	City of Atwater	Signal	27	C	**68**	**E**	11	B	13	B	-
Winton Way / Bellevue Rd		Signal	53	D	**115**	**F**	**91**	**F**	**149**	**F**	-
Winton Way / Juniper Ave		Signal	17	B	18	B	15	B	16	B	-
Winton Way / Olive Avenue		AWS	24	C	34	D	**38**	**E**	**94**	**F**	Yes
Winton Way / Atwater Blvd		Signal	48	D	44	D	**100**	**F**	**85**	**F**	-
Winton Way / Sycamore Ave		Signal	28	C	24	C	**90**	**F**	**98**	**F**	-
Applegate Rd / Commerce Dr		Signal	18	B	19	B	37	D	44	D	-
Santa Fe Dr / Buhach Road	Merced County	Signal	30	C	32	C	40	D	32	C	-

[1] Side Street Stop control. [2] All-Way Stop Control **Highlighted values** exceed minimum LOS D. [3] LOS E accepted on side street under General Plan Policy. [4] traffic signal warranted based on MUTCD traffic signal Warrant 9

TABLE 17
LONG TERM PLUS WCP INTERSECTION IMPROVEMENT REQUIREMENTS

Intersection	Jurisdiction	Control	Level of Service and Delay								
			Long Term with WCP				Improvement	Long Term with WCP W Improvements			
			AM Peak Hour		PM Peak Hour			AM Peak Hour		PM Peak Hour	
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS		Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
Cypress Ave / Walnut / Ave	Merced County	SSS	**136**	**F**	**881**	**F**	Traffic Signal, NB and WB left turn lanes	33	D	17	B
Santa Fe Dr / Walnut Ave	Merced County	AWS	**239**	**F**	**336**	**F**	Signal, NB / SB left, EB right turn, NB right turn lane	54	D	32	C
Winton Way / Walnut Ave	Merced County	AWS	**247**	**F**	**180**	**F**	Signal	10	B	9	A
Shaffer Road / Walnut Ave	Merced County	AWS	16	A	**42**	**E**	Southbound right turn lane			20	C
Santa Fe Dr / Winton Way	Merced County	Signal	**68**	**E**	**81**	**F**	Widen crossing to lengthen NB right turn lane w/overlap phase	53	D	**60**	**E**
Cypress Ave / Almond Ave	Merced County	AWS	**230**	**F**	34	D	Signal	25	C		
Winton Way / Gertrude Ave		Signal	**93**	**F**	**91**	**F**	EB/WB left turn lanes	51	D	41	D
Santa Fe Dr / Shaffer Rd		Signal	**253**	**F**	**208**	**F**	4-lane Santa Fe Drive EB/WB right NB right turn lane	43	D	54	D
Winton Way / Camelia Ave		SSS	**39**	**E**	24	C	Traffic Signal	12	B		
Winton Way / Fruitland Avenue		Signal	**68**	**E**	13	B	Southbound right turn overlap phase	51	D		
Winton Way / Bellevue Road	Atwater	Signal	**115**	**F**	149	F	WB right turn lane w/ overlap phase	36	D	50	D
Winton Way / Olive Ave	Atwater	AWS	34	D	**94**	**F**	Traffic Signal			15	B
Winton Way / Atwater Blvd	Atwater	Signal	44	D	**85**	**F**	Prohibit Northbound left turn			39	D
Winton Way / Sycamore Ave	Atwater	Signal	24	C	**98**	**F**	2nd NB thru lane			31	C

Highlighted cells exceed minimum LOS D. Note: this list does not include improvements required to Santa Fe Drive / Olive Avenue intersections based on impacts to railroad crossing.

TECHNICAL APPENDIX

FOR

WINTON COMMUNITY PLAN
TRANSPORTATION IMPACT ANALYSIS
Merced County, CA

Prepared For:

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September 2020

3490-05

Prepared by National Data & Surveying Services

Winton Way & Olive Ave

Peak Hour Turning Movement Count

ID: 18-07324-001
City: Atwater

Day: Tuesday
Date: 09/25/2018

PEAK HOURS		COUNT PERIODS
07:15 AM - 08:15 AM	AM	07:00 AM - 09:00 AM
NONE	NOON	NONE
04:00 PM - 05:00 PM	PM	04:00 PM - 06:00 PM

Winton Way – SOUTHBOUND

	Right	Through	Left	U-Turn	Exit
AM	37	458	0	0	381
NOON	0	0	0	0	0
PM	45	435	0	0	736
	0	0	0	0	

Olive Ave – EASTBOUND

	AM	NOON	PM	
Exit	115	0	144	
U-Turn	0	0	0	0
Left	89	0	112	0
Through	0	0	0	0
Right	51	0	78	0

Olive Ave – WESTBOUND

		PM	NOON	AM
Right	0	1	0	1
Through	0	1	0	1
Left	0	3	0	2
U-Turn	0	0	0	0
Exit		13	0	2

CONTROL

0

	AM	NOON	PM
TEV	1009	0	1409
PHF	0.89		0.96

Winton Way – NORTHBOUND

	Exit	U-Turn	Left	Through	Right
		0	0	0	0
PM	516	0	98	623	13
NOON	0	0	0	0	0
AM	511	0	77	291	2

Total Vehicles (AM)

Approach	Right	Through	Left
Southbound	37	458	0
Eastbound	51	0	89
Westbound	1	1	2
Northbound	2	291	77

Total Vehicles (Noon)

Approach	Right	Through	Left
Southbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A

Total Vehicles (PM)

Approach	Right	Through	Left
Southbound	45	435	0
Eastbound	78	0	112
Westbound	1	1	3
Northbound	13	623	98

Bikes (AM)

Approach	Right	Through	Left
Southbound	1	2	0
Eastbound	0	0	1
Westbound	0	0	0
Northbound	0	1	1

Bikes (NOON)

Approach	Right	Through	Left
Southbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A

Bikes (PM)

Approach	Right	Through	Left
Southbound	0	2	0
Eastbound	0	0	1
Westbound	0	0	0
Northbound	0	3	2

Pedestrians (Crosswalks)

Crosswalk	Direction	AM	NOON	PM
North	Eastward	1	0	1
North	Westward	0	0	3
West	Southward	0	0	1
West	Northward	0	0	1
East	Southward	3	0	1
East	Northward	2	0	5
South	Eastward	0	0	0
South	Westward	0	0	0
NW diagonal		0	0	0
NE diagonal		0	0	0
SW diagonal		0	0	0
SE diagonal		0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Olive Ave
City: Atwater
Control:

Project ID: 18-07324-001
Date: 9/25/2018

Total

NS/EW Streets:	Winton Way				Winton Way				Olive Ave				Olive Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	10	70	1	0	0	74	8	0	16	0	5	0	0	0	0	0	184
7:15 AM	13	80	0	0	0	99	12	0	19	0	8	0	0	0	1	0	232
7:30 AM	16	83	2	0	0	140	11	0	20	0	9	0	1	1	0	0	283
7:45 AM	28	73	0	0	0	108	8	0	33	0	14	0	1	0	0	0	265
8:00 AM	20	55	0	0	0	111	6	0	17	0	20	0	0	0	0	0	229
8:15 AM	13	61	0	0	0	73	8	0	27	1	20	0	1	0	0	0	204
8:30 AM	9	63	3	0	0	67	4	0	18	0	12	0	0	0	0	0	176
8:45 AM	11	69	2	0	0	78	7	0	13	0	15	0	0	0	0	0	195
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	120	554	8	0	0	750	64	0	163	1	103	0	3	1	1	0	1768
APPROACH %'s :	17.60%	81.23%	1.17%	0.00%	0.00%	92.14%	7.86%	0.00%	61.05%	0.37%	38.58%	0.00%	60.00%	20.00%	20.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	77	291	2	0	0	458	37	0	89	0	51	0	2	1	1	0	1009
PEAK HR FACTOR :	0.688	0.877	0.250	0.000	0.000	0.818	0.771	0.000	0.674	0.000	0.638	0.000	0.500	0.250	0.250	0.000	0.891
	0.916				0.820				0.745				0.500				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	26	154	4	0	0	114	9	0	20	0	19	0	1	0	0	0	347
4:15 PM	17	142	4	0	0	109	13	0	30	0	21	0	1	0	0	0	337
4:30 PM	27	154	4	0	0	103	17	0	31	0	19	0	1	1	1	0	358
4:45 PM	28	173	1	0	0	109	6	0	31	0	19	0	0	0	0	0	367
5:00 PM	27	134	3	0	0	101	11	0	30	0	18	0	1	0	0	0	325
5:15 PM	19	132	2	0	2	100	13	0	17	0	23	0	0	0	0	0	308
5:30 PM	23	128	4	0	0	130	14	0	30	0	16	0	0	0	0	0	345
5:45 PM	14	115	4	0	0	104	14	0	15	0	11	0	0	0	0	0	277
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	181	1132	26	0	2	870	97	0	204	0	146	0	4	1	1	0	2664
APPROACH %'s :	13.52%	84.54%	1.94%	0.00%	0.21%	89.78%	10.01%	0.00%	58.29%	0.00%	41.71%	0.00%	66.67%	16.67%	16.67%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	98	623	13	0	0	435	45	0	112	0	78	0	3	1	1	0	1409
PEAK HR FACTOR :	0.875	0.900	0.813	0.000	0.000	0.954	0.662	0.000	0.903	0.000	0.929	0.000	0.750	0.250	0.250	0.000	0.960
	0.908				0.976				0.931				0.417				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Olive Ave
City: Atwater
Control: 0

Project ID: 18-07324-001
Date: 9/25/2018

Bikes

NS/EW Streets:	Winton Way				Winton Way				Olive Ave				Olive Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2
7:45 AM	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	3
8:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	1	0	0	0	3	1	0	1	0	0	0	0	0	0	0	7
APPROACH %'s :	50.00%	50.00%	0.00%	0.00%	0.00%	75.00%	25.00%	0.00%	100.00%	0.00%	0.00%	0.00%					
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	1	1	0	0	0	2	1	0	1	0	0	0	0	0	0	0	6
PEAK HR FACTOR :	0.250	0.250	0.000	0.000	0.000	0.500	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
	0.500				0.750				0.250								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	1	2	0	0	0	1	0	0	1	0	0	0	0	0	0	0	5
4:45 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	3	0	0	0	2	0	0	2	0	1	0	0	0	0	0	10
APPROACH %'s :	40.00%	60.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	66.67%	0.00%	33.33%	0.00%					
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	2	3	0	0	0	2	0	0	1	0	0	0	0	0	0	0	8
PEAK HR FACTOR :	0.50	0.375	0.000	0.000	0.000	0.500	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.400
	0.417				0.500				0.250								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Olive Ave
City: Atwater

Project ID: 18-07324-001
Date: 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Winton Way		Winton Way		Olive Ave		Olive Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	1	1	0	0	1	1	0	1	5
7:15 AM	0	0	0	0	1	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	1	0	0	1
8:00 AM	1	0	0	0	1	2	0	0	4
8:15 AM	1	1	0	0	1	1	0	0	4
8:30 AM	1	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	4	2	0	0	4	5	0	1	16
APPROACH %'s :	66.67%	33.33%			44.44%	55.56%	0.00%	100.00%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	1	0	0	0	2	3	0	0	6
PEAK HR FACTOR :	0.250				0.500	0.375			0.375
	0.250				0.417				

	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
PM	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	1	0	0	0	0	0	0	1
4:15 PM	0	2	0	0	2	0	0	0	4
4:30 PM	0	0	0	0	2	0	0	1	3
4:45 PM	1	0	0	0	1	1	1	0	4
5:00 PM	0	1	0	0	2	0	0	0	3
5:15 PM	0	0	0	0	0	0	1	0	1
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	1	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	4	0	0	8	1	2	1	17
APPROACH %'s :	20.00%	80.00%			88.89%	11.11%	66.67%	33.33%	
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	1	3	0	0	5	1	1	1	12
PEAK HR FACTOR :	0.250	0.375			0.625	0.250	0.250	0.250	0.750
	0.500				0.750		0.500		

Prepared by National Data & Surveying Services

Winton Way & Walnut Ave

Peak Hour Turning Movement Count

ID: 18-07324-002
City: Winton

Day: Tuesday
Date: 09/25/2018

	PEAK HOURS	COUNT PERIODS
AM	07:15 AM - 08:15 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:45 PM - 05:45 PM	04:00 PM - 06:00 PM

Winton Way – SOUTHBOUND

	↲	↓	↳	U	⇧
AM	53	136	20	0	154
NOON	0	0	0	0	0
PM	47	179	16	0	254
	0	0	0	0	

Walnut Ave – EASTBOUND

	AM	NOON	PM	
⇦	163	0	125	
U	0	0	0	0
↰	43	0	67	0
→	86	0	112	0
↴	23	0	32	0

Walnut Ave – WESTBOUND

		PM	NOON	AM
0	↰	28	0	12
0	←	55	0	79
0	↲	67	0	49
0	U	0	0	0
	⇨	167	0	140

Winton Way – NORTHBOUND

	⇩	U	↰	↑	↱
		0	0	0	0
PM	278	0	23	159	39
NOON	0	0	0	0	0
AM	208	0	31	99	34

CONTROL

0

	AM	NOON	PM
TEV	665	0	824
PHF	0.78		0.94

Total Vehicles (AM)

Approach	Movements
Southbound	53, 136, 20
Eastbound	43, 86, 23
Westbound	12, 79, 49
Northbound	31, 99, 34

Total Vehicles (Noon)

Approach	Movements
Southbound	N/A, N/A, N/A
Eastbound	N/A, N/A, N/A
Westbound	N/A, N/A, N/A
Northbound	N/A, N/A, N/A

Total Vehicles (PM)

Approach	Movements
Southbound	47, 179, 16
Eastbound	67, 112, 32
Westbound	28, 55, 67
Northbound	23, 159, 39

Bikes (AM)

Approach	Movements
Southbound	1, 0, 0
Eastbound	0, 0, 0
Westbound	0, 0, 1
Northbound	0, 1, 0

Bikes (NOON)

Approach	Movements
Southbound	N/A, N/A, N/A
Eastbound	N/A, N/A, N/A
Westbound	N/A, N/A, N/A
Northbound	N/A, N/A, N/A

Bikes (PM)

Approach	Movements
Southbound	0, 0, 0
Eastbound	1, 0, 0
Westbound	0, 2, 0
Northbound	0, 0, 0

Pedestrians (Crosswalks)

Crosswalk	Direction	AM	NOON	PM
North	→	8	0	6
North	←	13	0	5
West	↓	1	0	1
West	↑	4	0	6
East	↓	0	0	7
East	↑	2	0	3
South	→	1	0	5
South	←	5	0	6
Diagonals (all four)		0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Walnut Ave
City: Winton
Control:

Project ID: 18-07324-002
Date: 9/25/2018

Total

NS/EW Streets:	Winton Way				Winton Way				Walnut Ave				Walnut Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	2	11	2	0	1	20	13	0	6	8	1	0	9	10	0	0	83
7:15 AM	17	11	4	0	4	33	8	0	1	20	3	0	10	22	1	0	134
7:30 AM	9	24	10	0	9	37	29	0	14	24	6	0	17	31	4	0	214
7:45 AM	4	27	10	0	5	48	13	0	16	29	10	0	14	17	2	0	195
8:00 AM	1	37	10	0	2	18	3	0	12	13	4	0	8	9	5	0	122
8:15 AM	2	24	5	0	3	22	3	0	1	10	0	0	6	8	4	0	88
8:30 AM	2	19	3	0	1	28	2	0	5	5	2	0	6	12	0	0	85
8:45 AM	1	13	2	0	2	26	5	0	4	8	1	0	12	7	3	0	84
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	38	166	46	0	27	232	76	0	59	117	27	0	82	116	19	0	1005
APPROACH %'s :	15.20%	66.40%	18.40%	0.00%	8.06%	69.25%	22.69%	0.00%	29.06%	57.64%	13.30%	0.00%	37.79%	53.46%	8.76%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	31	99	34	0	20	136	53	0	43	86	23	0	49	79	12	0	665
PEAK HR FACTOR :	0.456	0.669	0.850	0.000	0.556	0.708	0.457	0.000	0.672	0.741	0.575	0.000	0.721	0.637	0.600	0.000	0.777
	0.854				0.697				0.691				0.673				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	33	14	0	4	37	8	0	15	22	4	0	12	11	2	0	163
4:15 PM	5	37	13	0	4	40	7	0	13	34	8	0	17	15	3	0	196
4:30 PM	4	29	11	0	6	33	6	0	14	23	9	0	9	14	5	0	163
4:45 PM	6	38	11	0	4	49	13	0	16	36	9	0	15	14	9	0	220
5:00 PM	5	44	8	0	6	35	12	0	18	22	11	0	18	13	5	0	197
5:15 PM	7	36	10	0	2	55	12	0	17	27	7	0	13	14	9	0	209
5:30 PM	5	41	10	0	4	40	10	0	16	27	5	0	21	14	5	0	198
5:45 PM	4	39	10	0	4	37	12	0	14	20	7	0	7	18	5	0	177
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	37	297	87	0	34	326	80	0	123	211	60	0	112	113	43	0	1523
APPROACH %'s :	8.79%	70.55%	20.67%	0.00%	7.73%	74.09%	18.18%	0.00%	31.22%	53.55%	15.23%	0.00%	41.79%	42.16%	16.04%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	23	159	39	0	16	179	47	0	67	112	32	0	67	55	28	0	824
PEAK HR FACTOR :	0.821	0.903	0.886	0.000	0.667	0.814	0.904	0.000	0.931	0.778	0.727	0.000	0.798	0.982	0.778	0.000	0.936
	0.969				0.877				0.865				0.938				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Walnut Ave
City: Winton
Control: 0

Project ID: 18-07324-002
Date: 9/25/2018

Bikes

NS/EW Streets:	Winton Way				Winton Way				Walnut Ave				Walnut Ave				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	1	1	0	1	0	0	0	1	0	0	0	5
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	50.00%	50.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	3
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.750
	0.250				0.250								0.250				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	1	0	0	1	0	0	1	0	0	0	0	2	0	0	5
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	3
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.375
									0.250				0.250				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Walnut Ave **Project ID:** 18-07324-002
City: Winton **Date:** 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Winton Way		Winton Way		Walnut Ave		Walnut Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	5	0	2	0	2	0	0	9
7:15 AM	2	4	0	0	0	0	0	0	6
7:30 AM	2	6	1	2	2	0	0	0	13
7:45 AM	4	2	0	2	0	0	4	0	12
8:00 AM	0	1	0	1	0	0	0	1	3
8:15 AM	0	0	0	0	0	0	0	1	1
8:30 AM	2	0	0	2	0	1	3	2	10
8:45 AM	1	0	0	0	0	1	3	2	7
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	11	18	1	9	2	4	10	6	61
APPROACH %'s :	37.93%	62.07%	10.00%	90.00%	33.33%	66.67%	62.50%	37.50%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	8	13	1	5	2	0	4	1	34
PEAK HR FACTOR :	0.500	0.542	0.250	0.625	0.250		0.250	0.250	0.654
	0.656		0.500		0.250		0.313		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	2	1	1	0	0	0	1	5
4:15 PM	1	1	2	0	0	0	1	1	6
4:30 PM	0	1	2	0	0	0	1	2	6
4:45 PM	1	1	0	3	0	4	0	0	9
5:00 PM	3	0	2	0	0	2	4	0	11
5:15 PM	0	0	3	1	0	0	1	0	5
5:30 PM	5	4	0	2	3	1	1	1	17
5:45 PM	0	0	0	0	2	1	2	2	7
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	10	9	10	7	5	8	10	7	66
APPROACH %'s :	52.63%	47.37%	58.82%	41.18%	38.46%	61.54%	58.82%	41.18%	
PEAK HR :	04:45 PM - 05:45 PM								TOTAL
PEAK HR VOL :	9	5	5	6	3	7	6	1	42
PEAK HR FACTOR :	0.450	0.313	0.417	0.500	0.250	0.438	0.375	0.250	0.618
	0.389		0.688		0.625		0.438		

Prepared by National Data & Surveying Services

Winton Way & Santa Fe Dr

Peak Hour Turning Movement Count

ID: 18-07324-003
City: Winton

Day: Tuesday
Date: 09/25/2018

	PEAK HOURS	COUNT PERIODS
AM	07:15 AM - 08:15 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:30 PM - 05:30 PM	04:00 PM - 06:00 PM

Winton Way — SOUTHBOUND

	Right	Thru	Left	U-Turn	Exit
AM	4	181	28	0	179
NOON	0	0	0	0	0
PM	10	197	51	0	224
Bikes	0	0	0	0	

Santa Fe Dr — EASTBOUND

	AM	NOON	PM	Bikes
Exit	321	0	399	
U-Turn	0	0	0	0
Left	0	0	9	0
Thru	240	0	235	0
Right	101	0	165	0

Santa Fe Dr — WESTBOUND

	PM	NOON	AM	Bikes
Right	32	0	30	0
Thru	250	0	188	0
Left	145	0	155	0
U-Turn	0	0	0	0
Exit	443	0	463	

Winton Way — NORTHBOUND

	Exit	U-Turn	Left	Thru	Right
Bikes		0	0	0	0
PM	507	0	139	183	157
NOON	0	0	0	0	0
AM	437	0	129	149	195

CONTROL

0

	AM	NOON	PM
TEV	1400	0	1573
PHF	0.85		0.91

Total Vehicles (AM)

Approach	Left	Thru	Right	U-Turn
Southbound	28	181	4	
Eastbound	0	240	101	
Westbound	155	188	30	
Northbound	129	149	195	

Total Vehicles (Noon)

All movements: N/A

Total Vehicles (PM)

Approach	Left	Thru	Right
Southbound	51	197	10
Eastbound	9	235	165
Westbound	145	250	32
Northbound	139	183	157

Bikes (AM)

Approach	Left	Thru	Right
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	1	0

Bikes (NOON)

All movements: N/A

Bikes (PM)

Approach	Left	Thru	Right
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0

Pedestrians (Crosswalks)

Crosswalk	Direction	AM	NOON	PM
North leg	Eastbound	2	0	0
North leg	Westbound	0	0	0
West leg	Southbound	1	0	0
West leg	Northbound	2	0	1
East leg	Southbound	3	0	2
East leg	Northbound	1	0	1
South leg	Eastbound	0	0	0
South leg	Westbound	0	0	0
Diagonals (all corners)		0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Santa Fe Dr
City: Winton
Control:

Project ID: 18-07324-003
Date: 9/25/2018

Total

NS/EW Streets:	Winton Way				Winton Way				Santa Fe Dr				Santa Fe Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	23	13	15	0	4	27	1	0	0	33	12	0	16	45	1	0	190
7:15 AM	23	29	33	0	7	37	1	0	0	71	26	0	37	52	7	0	323
7:30 AM	39	35	52	0	6	49	0	0	0	69	26	0	45	57	6	0	384
7:45 AM	46	44	70	0	9	63	1	0	0	54	30	0	50	39	7	0	413
8:00 AM	21	41	40	0	6	32	2	0	0	46	19	0	23	40	10	0	280
8:15 AM	20	24	19	0	8	24	2	0	3	56	16	0	15	44	4	0	235
8:30 AM	17	21	27	0	10	24	1	0	3	41	17	0	16	39	4	0	220
8:45 AM	18	12	14	0	9	29	1	0	1	44	18	0	24	32	13	0	215
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	207	219	270	0	59	285	9	0	7	414	164	0	226	348	52	0	2260
APPROACH %'s :	29.74%	31.47%	38.79%	0.00%	16.71%	80.74%	2.55%	0.00%	1.20%	70.77%	28.03%	0.00%	36.10%	55.59%	8.31%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	129	149	195	0	28	181	4	0	0	240	101	0	155	188	30	0	1400
PEAK HR FACTOR :	0.701	0.847	0.696	0.000	0.778	0.718	0.500	0.000	0.000	0.845	0.842	0.000	0.775	0.825	0.750	0.000	0.847
	0.739				0.729				0.879				0.863				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	32	48	30	0	13	40	4	0	5	46	43	0	26	56	3	0	346
4:15 PM	29	38	29	0	7	48	3	0	1	50	32	0	39	33	7	0	316
4:30 PM	30	45	40	0	8	42	3	0	4	59	41	0	31	53	10	0	366
4:45 PM	35	47	41	0	14	54	1	0	3	63	52	0	36	80	5	0	431
5:00 PM	44	54	52	0	12	42	5	0	2	56	41	0	34	65	8	0	415
5:15 PM	30	37	24	0	17	59	1	0	0	57	31	0	44	52	9	0	361
5:30 PM	32	42	22	0	6	52	5	0	3	55	26	0	33	62	6	0	344
5:45 PM	27	46	35	0	8	45	6	0	1	55	31	0	39	59	9	0	361
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	259	357	273	0	85	382	28	0	19	441	297	0	282	460	57	0	2940
APPROACH %'s :	29.13%	40.16%	30.71%	0.00%	17.17%	77.17%	5.66%	0.00%	2.51%	58.26%	39.23%	0.00%	35.29%	57.57%	7.13%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	139	183	157	0	51	197	10	0	9	235	165	0	145	250	32	0	1573
PEAK HR FACTOR :	0.790	0.847	0.755	0.000	0.750	0.835	0.500	0.000	0.563	0.933	0.793	0.000	0.824	0.781	0.800	0.000	0.912
	0.798				0.838				0.867				0.882				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Santa Fe Dr
City: Winton
Control: 0

Project ID: 18-07324-003
Date: 9/25/2018

Bikes

NS/EW Streets:	Winton Way				Winton Way				Santa Fe Dr				Santa Fe Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
	0.250																

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
APPROACH %'s :					0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Santa Fe Dr
Project ID: 18-07324-003
City: Winton
Date: 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Winton Way		Winton Way		Santa Fe Dr		Santa Fe Dr		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	5	1	2	8
7:15 AM	0	0	0	0	0	3	0	1	4
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	2	0	0	0	0	0	2	0	4
8:00 AM	0	0	0	0	1	0	0	0	1
8:15 AM	0	0	0	0	1	0	0	1	2
8:30 AM	0	0	0	0	1	1	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	2	0	0	0	3	9	3	4	21
APPROACH %'s :	100.00%	0.00%			25.00%	75.00%	42.86%	57.14%	
PEAK HR :	**07:15 AM - 08:15 AM**								TOTAL
PEAK HR VOL :	2	0	0	0	1	3	2	1	9
PEAK HR FACTOR :	0.250				0.250	0.250	0.250	0.250	0.563
	0.250				0.333		0.375		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	2	0	0	2
4:15 PM	0	0	0	0	2	2	0	0	4
4:30 PM	0	0	0	0	1	1	0	0	2
4:45 PM	0	0	0	0	0	0	1	0	1
5:00 PM	0	0	0	0	0	1	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	3	6	1	0	10
APPROACH %'s :					33.33%	66.67%	100.00%	0.00%	
PEAK HR :	**04:30 PM - 05:30 PM**								TOTAL
PEAK HR VOL :	0	0	0	0	1	2	1	0	4
PEAK HR FACTOR :					0.250	0.500	0.250		0.500
					0.375		0.250		

Prepared by National Data & Surveying Services

Winton Way & Almond Ave

Peak Hour Turning Movement Count

ID: 18-07324-004
City: Winton

Day: Tuesday
Date: 09/25/2018

PEAK HOURS		COUNT PERIODS
AM	07:15 AM - 08:15 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:15 PM - 05:15 PM	04:00 PM - 06:00 PM

Winton Way — SOUTHBOUND

					Total
AM	57	377	0	0	500
NOON	0	0	0	0	0
PM	44	420	0	0	509
	0	0	0	0	

Almond Ave — EASTBOUND

	AM	NOON	PM	
Total	138	0	94	
U-turn	0	0	0	0
Left	77	0	68	0
Through	0	0	0	0
Right	99	0	74	0

Almond Ave — WESTBOUND

		PM	NOON	AM
Right	0	9	0	2
Through	0	7	0	0
Left	0	17	0	7
U-turn	0	0	0	0
Total		0	0	0

Winton Way — NORTHBOUND

	Total					
		0	0	0	0	
PM	511	0	43	432	0	PM
NOON	0	0	0	0	0	NOON
AM	483	0	81	421	0	AM

CONTROL

0

	AM	NOON	PM
TEV	1121	0	1114
PHF	0.82		0.94

Total Vehicles (AM)

SB	57	377	0	
EB	77	0	99	
WB	2	0	7	
NB	81	421	0	

Bikes (AM)

SB	0	0	0
EB	0	0	0
WB	0	0	0
NB	0	1	0

Total Vehicles (Noon)

SB	N/A	N/A	N/A
EB	N/A	N/A	N/A
WB	N/A	N/A	N/A
NB	N/A	N/A	N/A

Bikes (NOON)

SB	N/A	N/A	N/A
EB	N/A	N/A	N/A
WB	N/A	N/A	N/A
NB	N/A	N/A	N/A

Total Vehicles (PM)

SB	44	420	0
EB	68	0	74
WB	9	7	17
NB	43	432	0

Bikes (PM)

SB	1	0	0
EB	0	0	0
WB	0	0	0
NB	0	0	0

Pedestrians (Crosswalks)

	PM	NOON	AM
NW corner diagonal	0	0	0
NE corner diagonal	0	0	0
SW corner diagonal	0	0	0
SE corner diagonal	0	0	0
North crosswalk (west half)	2	0	0
North crosswalk (east half)	2	0	3
West crosswalk (north half)	2	0	2
West crosswalk (south half)	2	0	2
East crosswalk (north half)	0	0	5
East crosswalk (south half)	0	0	0
South crosswalk (west half)	2	0	0
South crosswalk (east half)	2	0	8

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Almond Ave
City: Winton
Control:

Project ID: 18-07324-004
Date: 9/25/2018

Total

NS/EW Streets:	Winton Way				Winton Way				Almond Ave				Almond Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	15	44	0	0	0	59	5	0	6	0	17	0	1	0	0	0	147
7:15 AM	18	88	0	0	0	90	9	0	12	0	13	0	0	0	0	0	230
7:30 AM	29	115	0	0	0	96	30	0	31	0	30	0	2	0	0	0	333
7:45 AM	22	116	0	0	0	127	16	0	24	0	36	0	1	0	0	0	342
8:00 AM	12	102	0	0	0	64	2	0	10	0	20	0	4	0	2	0	216
8:15 AM	3	56	0	0	0	50	3	0	11	0	9	0	1	0	0	0	133
8:30 AM	5	59	0	0	0	52	2	0	7	0	7	0	3	1	0	0	136
8:45 AM	5	42	0	0	0	71	3	0	3	0	7	0	1	0	1	0	133
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	109	622	0	0	0	609	70	0	104	0	139	0	13	1	3	0	1670
APPROACH %'s :	14.91%	85.09%	0.00%	0.00%	0.00%	89.69%	10.31%	0.00%	42.80%	0.00%	57.20%	0.00%	76.47%	5.88%	17.65%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	81	421	0	0	0	377	57	0	77	0	99	0	7	0	2	0	1121
PEAK HR FACTOR :	0.698	0.907	0.000	0.000	0.000	0.742	0.475	0.000	0.621	0.000	0.688	0.000	0.438	0.000	0.250	0.000	0.819
	0.872				0.759				0.721				0.375				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	8	106	0	0	0	96	6	0	15	0	20	0	5	0	2	0	258
4:15 PM	17	89	0	0	0	98	12	0	15	0	15	0	6	2	2	0	256
4:30 PM	9	106	0	0	0	106	7	0	16	0	19	0	6	2	1	0	272
4:45 PM	9	112	0	0	0	112	10	0	21	0	22	0	1	1	3	0	291
5:00 PM	8	125	0	0	0	104	15	0	16	0	18	0	4	2	3	0	295
5:15 PM	13	85	0	0	0	112	9	0	10	0	13	0	2	0	1	0	245
5:30 PM	11	99	0	0	0	106	11	0	9	0	18	0	2	1	3	0	260
5:45 PM	10	103	0	0	0	89	13	0	13	0	14	0	1	1	2	0	246
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	85	825	0	0	0	823	83	0	115	0	139	0	27	9	17	0	2123
APPROACH %'s :	9.34%	90.66%	0.00%	0.00%	0.00%	90.84%	9.16%	0.00%	45.28%	0.00%	54.72%	0.00%	50.94%	16.98%	32.08%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	43	432	0	0	0	420	44	0	68	0	74	0	17	7	9	0	1114
PEAK HR FACTOR :	0.632	0.864	0.000	0.000	0.000	0.938	0.733	0.000	0.810	0.000	0.841	0.000	0.708	0.875	0.750	0.000	0.944
	0.893				0.951				0.826				0.825				

National Data & Surveying Services
Intersection Turning Movement Count

Location: Winton Way & Almond Ave
City: Winton
Control: 0

Project ID: 18-07324-004
Date: 9/25/2018

Bikes

NS/EW Streets:	Winton Way				Winton Way				Almond Ave				Almond Ave				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	5
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
	0.250																

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	3
APPROACH %'s :					0.00%	50.00%	50.00%	0.00%	100.00%	0.00%	0.00%	0.00%					
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
					0.250												

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Almond Ave **Project ID:** 18-07324-004
City: Winton **Date:** 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Winton Way		Winton Way		Almond Ave		Almond Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	3	0	0	0	0	0	7	10
7:15 AM	0	2	0	7	0	3	0	0	12
7:30 AM	0	1	0	1	0	2	2	1	7
7:45 AM	0	0	0	0	0	0	0	1	1
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	1	0	1
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	1	0	0	0	0	0	0	1	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	6	0	8	0	5	3	10	33
APPROACH %'s :	14.29%	85.71%	0.00%	100.00%	0.00%	100.00%	23.08%	76.92%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	0	3	0	8	0	5	2	2	20
PEAK HR FACTOR :		0.375		0.286		0.417	0.250	0.500	0.417
	0.375		0.286		0.417		0.333		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	1	1	2
4:15 PM	0	0	0	0	0	0	2	1	3
4:30 PM	2	0	2	0	0	0	0	1	5
4:45 PM	0	2	0	2	0	0	0	0	4
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	1	1	2
5:30 PM	0	0	1	1	1	1	0	0	4
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	2	2	3	3	1	1	4	4	20
APPROACH %'s :	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	
PEAK HR :	04:15 PM - 05:15 PM								TOTAL
PEAK HR VOL :	2	2	2	2	0	0	2	2	12
PEAK HR FACTOR :	0.250	0.250	0.250	0.250			0.250	0.500	0.600
	0.500		0.500				0.333		

Prepared by National Data & Surveying Services

Winton Way & Gertrude Ave

Peak Hour Turning Movement Count

ID: 18-07324-005
City: Winton

Day: Tuesday
Date: 09/25/2018

PEAK HOURS	
AM	07:15 AM - 08:15 AM
NOON	NONE
PM	04:30 PM - 05:30 PM

COUNT PERIODS	
AM	07:00 AM - 09:00 AM
NOON	NONE
PM	04:00 PM - 06:00 PM

Winton Way — SOUTHBOUND

	Right	Thru	Left	U-Turn	Departing
AM	30	427	20	0	468
NOON	0	0	0	0	0
PM	14	441	31	0	459
	0	0	0	0	

Gertrude Ave — EASTBOUND

	AM	NOON	PM	
Departing	140	0	145	
U-Turn	0	0	0	0
Left	20	0	7	0
Thru	32	0	27	0
Right	115	0	82	0

Gertrude Ave — WESTBOUND

		PM	NOON	AM
Right	0	55	0	41
Thru	0	56	0	29
Left	0	33	0	23
U-Turn	0	0	0	0
Departing		88	0	77

Winton Way — NORTHBOUND

	Departing	U-Turn	Left	Thru	Right
		0	0	0	0
PM	556	0	75	397	30
NOON	0	0	0	0	0
AM	565	0	81	407	25

CONTROL

0

	AM	NOON	PM
TEV	1250	0	1248
PHF	0.81		0.95

Total Vehicles (AM)

	Right	Thru	Left
Southbound	30	427	20
Northbound	25	407	81

	Left	Thru	Right
Eastbound	20	32	115
Westbound	23	29	41

Total Vehicles (Noon)

All movements: N/A

Total Vehicles (PM)

	Right	Thru	Left
Southbound	14	441	31
Northbound	30	397	75

	Left	Thru	Right
Eastbound	7	27	82
Westbound	33	56	55

Bikes (AM)

All movements: 0

Bikes (NOON)

All movements: N/A

Bikes (PM)

All movements: 0

Pedestrians (Crosswalks)

Crosswalk	AM	NOON	PM
North leg (west half)	0	0	0
North leg (east half)	0	0	0
West leg (north half)	21	0	0
West leg (south half)	0	0	0
East leg (north half)	1	0	0
East leg (south half)	0	0	0
South leg (west half)	0	0	0
South leg (east half)	0	0	0
NW diagonal	0	0	0
NE diagonal	0	0	0
SW diagonal	0	0	0
SE diagonal	0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Gertrude Ave
City: Winton
Control:

Project ID: 18-07324-005
Date: 9/25/2018

Total

NS/EW Streets: Winton Way | Winton Way | Gertrude Ave | Gertrude Ave

AM

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	19	43	8	0	6	66	0	0	1	1	22	0	3	6	9	0	184
7:15 AM	25	80	6	0	3	97	5	0	3	7	23	0	8	11	13	0	281
7:30 AM	30	117	6	0	7	120	20	0	8	9	43	0	4	9	11	0	384
7:45 AM	15	111	7	0	7	140	5	0	9	10	39	0	8	4	13	0	368
8:00 AM	11	99	6	0	3	70	0	0	0	6	10	0	3	5	4	0	217
8:15 AM	3	50	6	0	9	50	2	0	2	3	7	0	3	3	9	0	147
8:30 AM	7	60	2	0	5	52	1	0	0	3	9	0	1	3	12	0	155
8:45 AM	7	46	6	0	4	74	2	0	3	3	9	0	4	4	4	0	166
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	117	606	47	0	44	669	35	0	26	42	162	0	34	45	75	0	1902
APPROACH %'s :	15.19%	78.70%	6.10%	0.00%	5.88%	89.44%	4.68%	0.00%	11.30%	18.26%	70.43%	0.00%	22.08%	29.22%	48.70%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	81	407	25	0	20	427	30	0	20	32	115	0	23	29	41	0	1250
PEAK HR FACTOR :	0.675	0.870	0.893	0.000	0.714	0.763	0.375	0.000	0.556	0.800	0.669	0.000	0.719	0.659	0.788	0.000	0.814
	0.838				0.785				0.696				0.727				

PM

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	16	96	11	0	10	104	1	0	1	4	18	0	6	6	16	0	289
4:15 PM	13	85	4	0	3	97	5	0	1	6	15	0	6	14	19	0	268
4:30 PM	24	109	9	0	6	108	5	0	4	10	18	0	9	15	9	0	326
4:45 PM	16	116	5	0	10	102	2	0	0	2	24	0	8	15	9	0	309
5:00 PM	17	103	8	0	8	119	4	0	1	8	20	0	10	15	17	0	330
5:15 PM	18	69	8	0	7	112	3	0	2	7	20	0	6	11	20	0	283
5:30 PM	21	98	3	0	11	112	0	0	1	19	27	0	5	7	18	0	322
5:45 PM	16	97	4	0	4	81	8	0	2	3	16	0	6	11	15	0	263
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	141	773	52	0	59	835	28	0	12	59	158	0	56	94	123	0	2390
APPROACH %'s :	14.60%	80.02%	5.38%	0.00%	6.40%	90.56%	3.04%	0.00%	5.24%	25.76%	69.00%	0.00%	20.51%	34.43%	45.05%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	75	397	30	0	31	441	14	0	7	27	82	0	33	56	55	0	1248
PEAK HR FACTOR :	0.781	0.856	0.833	0.000	0.775	0.926	0.700	0.000	0.438	0.675	0.854	0.000	0.825	0.933	0.688	0.000	0.945
	0.884				0.927				0.906				0.857				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Gertrude Ave
City: Winton
Control: 0

Project ID: 18-07324-005
Date: 9/25/2018

Bikes

NS/EW Streets:	Winton Way				Winton Way				Gertrude Ave				Gertrude Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
APPROACH %'s :					0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Gertrude Ave **Project ID:** 18-07324-005
City: Winton **Date:** 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Winton Way		Winton Way		Gertrude Ave		Gertrude Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	2	0	2	0	4	8
7:15 AM	0	0	0	0	0	0	0	8	8
7:30 AM	0	0	0	0	0	1	0	12	13
7:45 AM	0	0	0	0	0	0	0	1	1
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	1	1	2
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	1	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	2	0	3	1	27	33
APPROACH %'s :			0.00%	100.00%	0.00%	100.00%	3.57%	96.43%	
PEAK HR :	**07:15 AM - 08:15 AM**								TOTAL
PEAK HR VOL :	0	0	0	0	0	1	0	21	22
PEAK HR FACTOR :						0.250		0.438	0.423
					0.250		0.438		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	1	0	0	1	0	2
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	1	0	0	1	0	2
APPROACH %'s :			0.00%	100.00%			100.00%	0.00%	
PEAK HR :	**04:30 PM - 05:30 PM**								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

Prepared by National Data & Surveying Services

Winton Way & Myrtle Ave

Peak Hour Turning Movement Count

ID: 18-07324-006
City: Winton

Day: Tuesday
Date: 09/25/2018

	PEAK HOURS	COUNT PERIODS
AM	07:15 AM - 08:15 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	05:00 PM - 06:00 PM	04:00 PM - 06:00 PM

Winton Way SOUTHBOUND

	Right	Through	Left	U-Turn	Departing (NB)
AM	10	75	3	0	64
NOON	0	0	0	0	0
PM	13	123	10	0	137
Peds/Bikes	0	0	0	0	

Myrtle Ave EASTBOUND

	AM	NOON	PM	
Departing (WB)	67	0	90	
U-Turn	0	0	0	0
Left	3	0	7	0
Through	15	0	21	0
Right	53	0	68	0

Myrtle Ave WESTBOUND

		PM	NOON	AM
Right	0	4	0	6
Through	0	23	0	23
Left	0	45	0	44
U-Turn	0	0	0	1
Departing (EB)		81	0	50

Winton Way NORTHBOUND

	Departing (SB)	U-Turn	Left	Through	Right
Peds/Bikes		0	0	0	0
PM	236	0	54	126	50
NOON	0	0	0	0	0
AM	172	0	34	55	31

CONTROL

0

	AM	NOON	PM
TEV	353	0	544
PHF	0.77		0.91

Total Vehicles (AM)

Approach	Left	Through	Right
Southbound	3	75	10
Eastbound	3	15	53
Westbound	44	23	6
Northbound	34	55	31

Total Vehicles (Noon)

Approach	Left	Through	Right
Southbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A

Total Vehicles (PM)

Approach	Left	Through	Right
Southbound	10	123	13
Eastbound	7	21	68
Westbound	45	23	4
Northbound	54	126	50

Bikes (AM)

Approach	Left	Through	Right
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	1	0

Bikes (NOON)

Approach	Left	Through	Right
Southbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A

Bikes (PM)

Approach	Left	Through	Right
Southbound	0	0	0
Eastbound	0	1	0
Westbound	3	0	0
Northbound	0	0	2

Pedestrians (Crosswalks)

Crosswalk	AM	NOON	PM
North leg (west side)	0	0	0
North leg (east side)	0	0	0
West leg (north side)	0	0	1
West leg (south side)	0	0	1
East leg (north side)	0	0	1
East leg (south side)	1	0	0
South leg (west side)	2	0	0
South leg (east side)	0	0	0
Northwest diagonal	0	0	0
Northeast diagonal	0	0	0
Southwest diagonal	0	0	0
Southeast diagonal	0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Myrtle Ave
City: Winton
Control:

Project ID: 18-07324-006
Date: 9/25/2018

Total

NS/EW Streets:	Winton Way				Winton Way				Myrtle Ave				Myrtle Ave				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	3	14	5	0	0	15	1	0	2	1	7	0	13	2	0	0	63
7:15 AM	3	5	6	0	1	15	4	0	0	4	19	0	9	6	2	0	74
7:30 AM	8	16	7	0	1	30	3	0	1	4	16	0	20	7	2	0	115
7:45 AM	11	18	7	0	1	17	3	0	1	5	10	0	12	6	0	0	91
8:00 AM	12	16	11	0	0	13	0	0	1	2	8	0	3	4	2	1	73
8:15 AM	8	18	2	0	0	13	2	0	0	1	10	0	2	1	1	0	58
8:30 AM	2	10	7	0	0	8	1	0	2	3	10	0	9	2	0	0	54
8:45 AM	3	11	1	0	0	13	0	0	0	0	12	0	5	0	1	0	46
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	50	108	46	0	3	124	14	0	7	20	92	0	73	28	8	1	574
APPROACH %'s :	24.51%	52.94%	22.55%	0.00%	2.13%	87.94%	9.93%	0.00%	5.88%	16.81%	77.31%	0.00%	66.36%	25.45%	7.27%	0.91%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	34	55	31	0	3	75	10	0	3	15	53	0	44	23	6	1	353
PEAK HR FACTOR :	0.708	0.764	0.705	0.000	0.750	0.625	0.625	0.000	0.750	0.750	0.697	0.000	0.550	0.821	0.750	0.250	0.767
	0.769				0.647				0.772				0.638				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	12	19	11	0	2	25	4	0	2	1	12	0	7	2	0	0	97
4:15 PM	16	25	4	0	3	24	2	0	1	4	12	0	13	2	0	0	106
4:30 PM	10	18	15	0	1	22	5	0	0	4	11	0	7	5	0	0	98
4:45 PM	17	25	11	0	2	30	4	0	3	5	14	0	7	3	1	0	122
5:00 PM	13	34	16	0	0	27	4	0	2	6	21	0	9	5	2	0	139
5:15 PM	11	33	9	0	5	39	4	0	3	8	20	0	12	6	0	0	150
5:30 PM	15	28	16	0	2	28	3	0	2	2	15	0	11	9	1	0	132
5:45 PM	15	31	9	0	3	29	2	0	0	5	12	0	13	3	1	0	123
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	109	213	91	0	18	224	28	0	13	35	117	0	79	35	5	0	967
APPROACH %'s :	26.39%	51.57%	22.03%	0.00%	6.67%	82.96%	10.37%	0.00%	7.88%	21.21%	70.91%	0.00%	66.39%	29.41%	4.20%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	54	126	50	0	10	123	13	0	7	21	68	0	45	23	4	0	544
PEAK HR FACTOR :	0.900	0.926	0.781	0.000	0.500	0.788	0.813	0.000	0.583	0.656	0.810	0.000	0.865	0.639	0.500	0.000	0.907
	0.913				0.760				0.774				0.857				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Myrtle Ave
City: Winton
Control: 0

Project ID: 18-07324-006
Date: 9/25/2018

Bikes

NS/EW Streets: Winton Way (Northbound) | Winton Way (Southbound) | Myrtle Ave (Eastbound) | Myrtle Ave (Westbound)

AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%					
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
	0.250																

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	3
4:15 PM	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	2
4:30 PM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
5:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	3
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	0	4	0	0	1	0	0	3	1	1	0	4	0	0	0	15
APPROACH %'s :	20.00%	0.00%	80.00%	0.00%	0.00%	100.00%	0.00%	0.00%	60.00%	20.00%	20.00%	0.00%	100.00%	0.00%	0.00%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	0	2	0	0	0	0	0	0	1	0	0	3	0	0	0	6
PEAK HR FACTOR :	0.00	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.375	0.000	0.000	0.000	0.500
	0.500								0.250				0.375				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Myrtle Ave **Project ID:** 18-07324-006
City: Winton **Date:** 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Winton Way		Winton Way		Myrtle Ave		Myrtle Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	2	1	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	0	0	0	1
7:45 AM	0	0	2	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	1	0	0	0	0	0	0	0	1
8:30 AM	0	1	0	0	0	0	0	1	2
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	1	2	0	3	1	0	1	9
APPROACH %'s :	50.00%	50.00%	100.00%	0.00%	75.00%	25.00%	0.00%	100.00%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	0	0	2	0	1	0	0	0	3
PEAK HR FACTOR :			0.250		0.250				0.375
			0.250		0.250				

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	1	0	0	0	1
4:15 PM	0	0	1	0	0	0	0	0	1
4:30 PM	0	0	1	0	1	0	2	0	4
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	1	0	1	2
5:15 PM	0	0	0	0	0	0	1	0	1
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	2	0	2	1	3	1	9
APPROACH %'s :			100.00%	0.00%	66.67%	33.33%	75.00%	25.00%	
PEAK HR :	05:00 PM - 06:00 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	1	1	1	3
PEAK HR FACTOR :						0.250	0.250	0.250	0.375
					0.250		0.500		

Prepared by National Data & Surveying Services

Santa Fe Dr & North Olive Ave

Peak Hour Turning Movement Count

ID: 18-07324-007
City: Winton

Day: Tuesday
Date: 09/25/2018

PEAK HOURS		COUNT PERIODS
AM	07:00 AM - 08:00 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:30 PM - 05:30 PM	04:00 PM - 06:00 PM

Santa Fe Dr – SOUTHBOUND

	Right	Thru	Left	U-Turn	Approach total
AM	6	172	0	0	229
NOON	0	0	0	0	0
PM	21	301	0	0	200
Pedestrians/other	0	0	0	0	

North Olive Ave – EASTBOUND

	AM	NOON	PM	
Departing	56	0	52	
U-Turn	0	0	0	0
Left	27	0	9	0
Thru	1	0	0	0
Right	40	0	51	0

North Olive Ave – WESTBOUND

		PM	NOON	AM
Right	0	0	0	0
Thru	0	0	0	1
Left	0	1	0	1
U-Turn	0	0	0	0
Departing		4	0	2

CONTROL

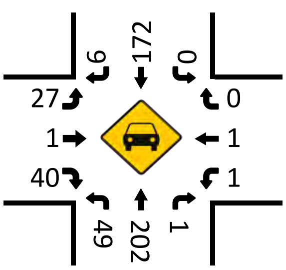
0

	AM	NOON	PM
TEV	500	0	609
PHF	0.88		0.94

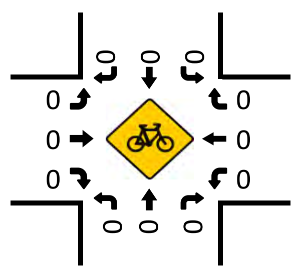
Santa Fe Dr – NORTHBOUND

	Approach total	U-Turn	Left	Thru	Right
		0	0	0	0
PM	353	0	31	191	4
NOON	0	0	0	0	0
AM	213	0	49	202	1

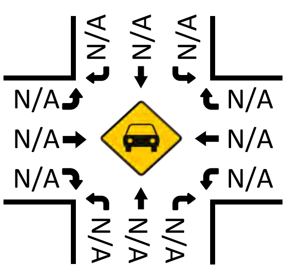
Total Vehicles (AM)



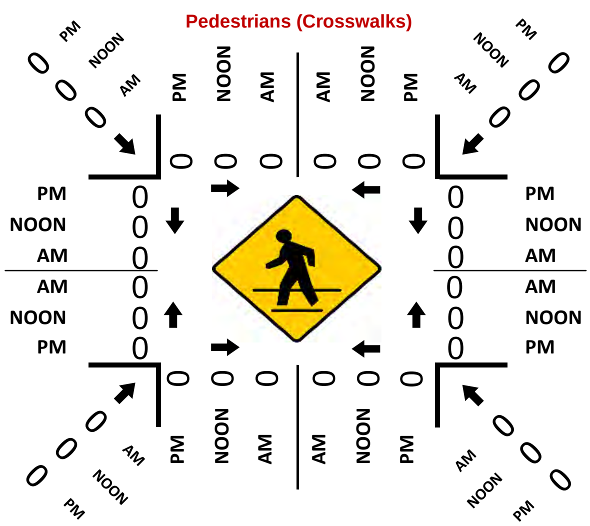
Bikes (AM)



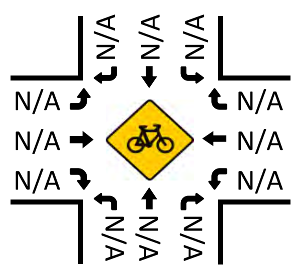
Total Vehicles (Noon)



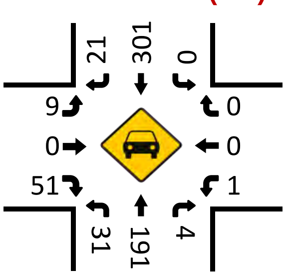
Pedestrians (Crosswalks)



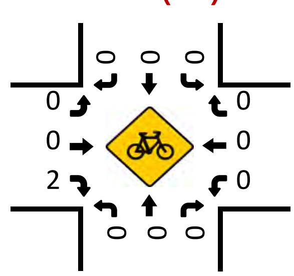
Bikes (NOON)



Total Vehicles (PM)



Bikes (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Santa Fe Dr & North Olive Ave
City: Winton
Control:

Project ID: 18-07324-007
Date: 9/25/2018

Total

NS/EW Streets:	Santa Fe Dr				Santa Fe Dr				North Olive Ave				North Olive Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	5	52	0	0	0	31	1	0	7	0	4	0	0	0	0	0	100
7:15 AM	19	45	0	0	0	53	0	0	6	1	16	0	1	1	0	0	142
7:30 AM	14	63	1	0	0	39	4	0	9	0	9	0	0	0	0	0	139
7:45 AM	11	42	0	0	0	49	1	0	5	0	11	0	0	0	0	0	119
8:00 AM	6	52	0	0	0	27	3	0	5	0	6	0	0	0	0	0	99
8:15 AM	7	37	0	0	0	38	2	0	3	0	6	0	0	0	0	0	93
8:30 AM	6	34	0	0	0	40	2	0	1	0	2	0	1	0	0	0	86
8:45 AM	4	41	0	0	0	36	1	0	1	0	5	0	1	0	0	0	89
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	72	366	1	0	0	313	14	0	37	1	59	0	3	1	0	0	867
APPROACH %'s :	16.40%	83.37%	0.23%	0.00%	0.00%	95.72%	4.28%	0.00%	38.14%	1.03%	60.82%	0.00%	75.00%	25.00%	0.00%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	49	202	1	0	0	172	6	0	27	1	40	0	1	1	0	0	500
PEAK HR FACTOR :	0.645	0.802	0.250	0.000	0.000	0.811	0.375	0.000	0.750	0.250	0.625	0.000	0.250	0.250	0.000	0.000	0.880
	0.808				0.840				0.739				0.250				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	11	42	0	0	1	71	9	0	1	1	7	0	1	0	0	0	144
4:15 PM	3	42	0	0	0	78	11	0	2	0	7	0	2	0	0	0	145
4:30 PM	9	40	2	0	0	88	7	0	2	0	13	0	1	0	0	0	162
4:45 PM	10	55	1	0	0	63	4	0	3	0	17	0	0	0	0	0	153
5:00 PM	4	48	1	0	0	78	4	0	1	0	8	0	0	0	0	0	144
5:15 PM	8	48	0	0	0	72	6	0	3	0	13	0	0	0	0	0	150
5:30 PM	9	41	0	0	0	67	5	1	4	0	9	0	0	0	0	0	136
5:45 PM	5	49	0	0	0	64	1	0	1	0	6	0	0	2	0	0	128
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	59	365	4	0	1	581	47	1	17	1	80	0	4	2	0	0	1162
APPROACH %'s :	13.79%	85.28%	0.93%	0.00%	0.16%	92.22%	7.46%	0.16%	17.35%	1.02%	81.63%	0.00%	66.67%	33.33%	0.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	31	191	4	0	0	301	21	0	9	0	51	0	1	0	0	0	609
PEAK HR FACTOR :	0.775	0.868	0.500	0.000	0.000	0.855	0.750	0.000	0.750	0.000	0.750	0.000	0.250	0.000	0.000	0.000	0.940
	0.856				0.847				0.750				0.250				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Santa Fe Dr & North Olive Ave
City: Winton
Control: 0

Project ID: 18-07324-007
Date: 9/25/2018

Bikes

NS/EW Streets:	Santa Fe Dr				Santa Fe Dr				North Olive Ave				North Olive Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
APPROACH %'s :									0.00%	0.00%	100.00%	0.00%					
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250
										0.250							

National Data & Surveying Services

Intersection Turning Movement Count

Location: Santa Fe Dr & North Olive Ave **Project ID:** 18-07324-007
City: Winton **Date:** 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Santa Fe Dr		Santa Fe Dr		North Olive Ave		North Olive Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0
APPROACH %'s :									
PEAK HR :	07:00 AM - 08:00 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0
APPROACH %'s :									
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

Prepared by National Data & Surveying Services

Santa Fe Dr & W Olive Ave

Peak Hour Turning Movement Count

ID: 18-07324-008
City: Winton

Day: Tuesday
Date: 09/25/2018

	PEAK HOURS	COUNT PERIODS
AM	07:15 AM - 08:15 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:30 PM - 05:30 PM	04:00 PM - 06:00 PM

Santa Fe Dr — SOUTHBOUND

	U-turn	Left	Through	Right	Departing
AM	0	174	35	0	248
NOON	0	0	0	0	0
PM	0	294	58	0	226
Bikes/Peds	0	0	0	0	

Santa Fe Dr — NORTHBOUND

	Departing	U-turn	Left	Through	Right
PM	295	0	0	206	2
NOON	0	0	0	0	0
AM	176	0	0	207	1
Bikes/Peds		0	0	0	0

W Olive Ave — EASTBOUND

	AM	NOON	PM	
Departing	0	0	0	
U-turn	0	0	0	0
Left	0	0	0	0
Through	0	0	0	0
Right	0	0	0	0

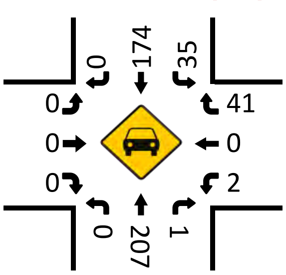
W Olive Ave — WESTBOUND

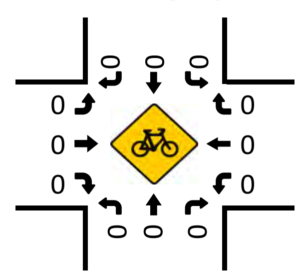
		PM	NOON	AM
Left	0	20	0	41
Through	0	0	0	0
Right	0	1	0	2
U-turn	0	0	0	0
Departing		60	0	36

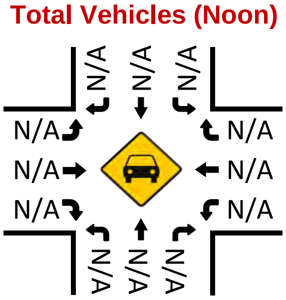
CONTROL

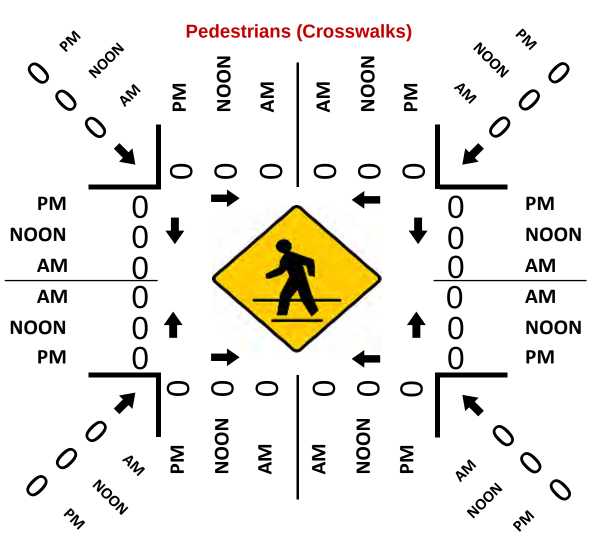
0

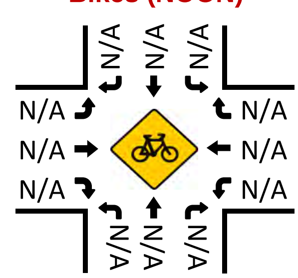
	AM	NOON	PM
TEV	460	0	581
PHF	0.86		0.94

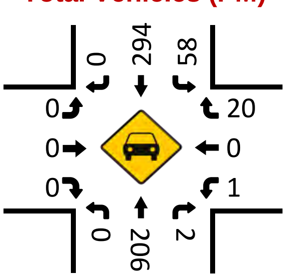


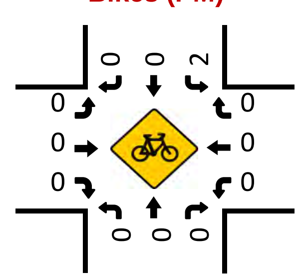












National Data & Surveying Services

Intersection Turning Movement Count

Location: Santa Fe Dr & W Olive Ave
City: Winton
Control:

Project ID: 18-07324-008
Date: 9/25/2018

Total

NS/EW Streets: Santa Fe Dr (Northbound) | Santa Fe Dr (Southbound) | W Olive Ave (Eastbound) | W Olive Ave (Westbound)

AM

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	46	0	0	2	33	0	0	0	0	0	0	0	0	9	0	90
7:15 AM	0	49	0	0	10	59	0	0	0	0	0	0	2	0	13	0	133
7:30 AM	0	69	1	0	9	39	0	0	0	0	0	0	0	0	9	0	127
7:45 AM	0	37	0	0	10	49	0	0	0	0	0	0	0	0	13	0	109
8:00 AM	0	52	0	0	6	27	0	0	0	0	0	0	0	0	6	0	91
8:15 AM	0	37	0	0	3	41	0	0	0	0	0	0	0	0	7	0	88
8:30 AM	0	35	0	0	1	42	0	0	0	0	0	0	0	0	7	0	85
8:45 AM	0	37	0	0	3	40	0	0	0	0	0	0	0	0	7	0	87
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	362	1	0	44	330	0	0	0	0	0	0	2	0	71	0	810
APPROACH %'s :	0.00%	99.72%	0.28%	0.00%	11.76%	88.24%	0.00%	0.00%					2.74%	0.00%	97.26%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	207	1	0	35	174	0	0	0	0	0	0	2	0	41	0	460
PEAK HR FACTOR :	0.000	0.750	0.250	0.000	0.875	0.737	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.788	0.000	0.865
	0.743				0.757								0.717				

PM

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	49	1	0	9	70	0	0	0	0	0	0	0	0	6	0	135
4:15 PM	0	42	0	0	12	76	0	0	0	0	0	0	1	0	3	0	134
4:30 PM	0	44	1	0	17	84	0	0	0	0	0	0	0	0	8	0	154
4:45 PM	0	64	0	0	15	65	0	0	0	0	0	0	0	0	2	0	146
5:00 PM	0	51	1	0	13	76	0	0	0	0	0	0	1	0	4	0	146
5:15 PM	0	47	0	0	13	69	0	0	0	0	0	0	0	0	6	0	135
5:30 PM	0	46	0	0	10	66	0	0	0	0	0	0	2	0	3	0	127
5:45 PM	0	55	0	0	18	51	0	0	0	0	0	0	0	0	1	0	125
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	398	3	0	107	557	0	0	0	0	0	0	4	0	33	0	1102
APPROACH %'s :	0.00%	99.25%	0.75%	0.00%	16.11%	83.89%	0.00%	0.00%					10.81%	0.00%	89.19%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	206	2	0	58	294	0	0	0	0	0	0	1	0	20	0	581
PEAK HR FACTOR :	0.000	0.805	0.500	0.000	0.853	0.875	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.625	0.000	0.943
	0.813				0.871								0.656				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Santa Fe Dr & W Olive Ave
City: Winton
Control: 0

Project ID: 18-07324-008
Date: 9/25/2018

Bikes

NS/EW Streets:	Santa Fe Dr				Santa Fe Dr				W Olive Ave				W Olive Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
APPROACH %'s :					100.00%	0.00%	0.00%	0.00%									
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
					0.250												

National Data & Surveying Services

Intersection Turning Movement Count

Location: Santa Fe Dr & W Olive Ave
City: Winton
Project ID: 18-07324-008
Date: 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Santa Fe Dr		Santa Fe Dr		W Olive Ave		W Olive Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0
APPROACH %'s :									
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0
APPROACH %'s :									
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

Prepared by National Data & Surveying Services

Santa Fe Dr & Jones Rd

Peak Hour Turning Movement Count

ID: 18-07324-009
City: Winton

Day: Tuesday
Date: 09/25/2018

	PEAK HOURS	COUNT PERIODS
AM	07:15 AM - 08:15 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:30 PM - 05:30 PM	04:00 PM - 06:00 PM

Santa Fe Dr — SOUTHBOUND

	Right	Thru	Left	U-Turn	Departing
AM	0	174	5	0	211
NOON	0	0	0	0	0
PM	0	278	33	0	214
(bikes/peds)	0	0	0	0	

Jones Rd — WESTBOUND

		PM	NOON	AM
Right	0	11	0	29
Thru	0	0	0	0
Left	0	46	0	57
U-Turn	0	0	0	0
Departing		89	0	64

Jones Rd — EASTBOUND

	AM	NOON	PM	
Departing	0	0	0	
U-Turn	0	0	0	0
Left	0	0	0	0
Thru	0	0	0	0
Right	0	0	0	0

Santa Fe Dr — NORTHBOUND

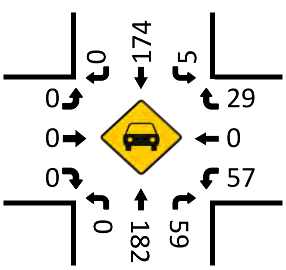
	Departing	U-Turn	Left	Thru	Right
(bikes/peds)		0	0	0	0
PM	324	0	0	203	56
NOON	0	0	0	0	0
AM	231	0	0	182	59

CONTROL

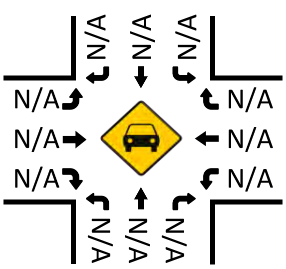
0

	AM	NOON	PM
TEV	506	0	627
PHF	0.91		0.95

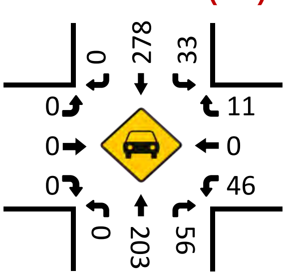
Total Vehicles (AM)



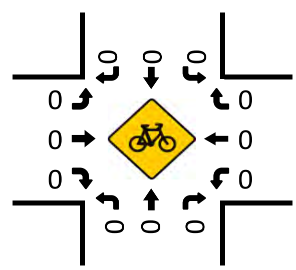
Total Vehicles (Noon)



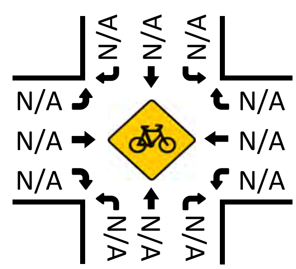
Total Vehicles (PM)



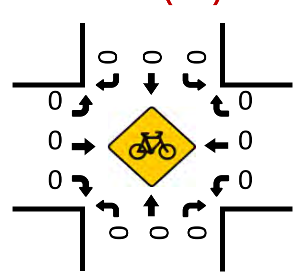
Bikes (AM)



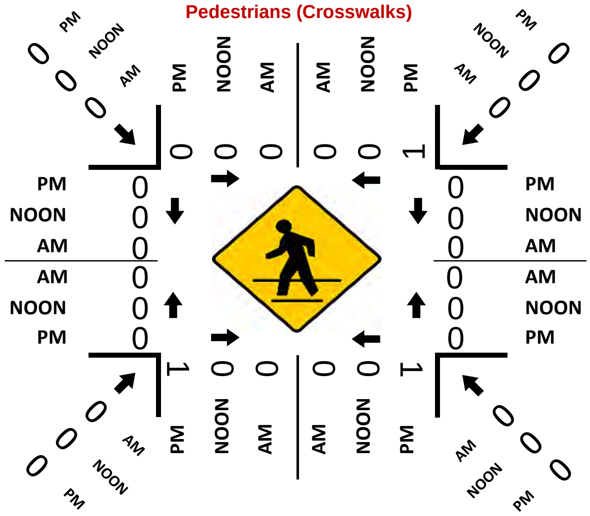
Bikes (NOON)



Bikes (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Santa Fe Dr & Jones Rd
City: Winton
Control:

Project ID: 18-07324-009
Date: 9/25/2018

Total

NS/EW Streets:	Santa Fe Dr				Santa Fe Dr				Jones Rd				Jones Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	45	8	0	1	32	0	0	0	0	0	0	6	0	4	0	96
7:15 AM	0	40	8	0	1	61	0	0	0	0	0	0	17	0	12	0	139
7:30 AM	0	60	14	0	1	38	0	0	0	0	0	0	20	0	6	0	139
7:45 AM	0	39	27	0	0	48	0	0	0	0	0	0	8	0	5	0	127
8:00 AM	0	43	10	0	3	27	0	0	0	0	0	0	12	0	6	0	101
8:15 AM	0	33	11	0	4	37	0	0	0	0	0	0	8	0	3	0	96
8:30 AM	0	32	8	0	1	38	0	0	0	0	0	0	7	0	4	0	90
8:45 AM	0	32	6	0	0	40	0	0	0	0	0	0	8	0	3	0	89
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	324	92	0	11	321	0	0	0	0	0	0	86	0	43	0	877
APPROACH %'s :	0.00%	77.88%	22.12%	0.00%	3.31%	96.69%	0.00%	0.00%					66.67%	0.00%	33.33%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	182	59	0	5	174	0	0	0	0	0	0	57	0	29	0	506
PEAK HR FACTOR :	0.000	0.758	0.546	0.000	0.417	0.713	0.000	0.000	0.000	0.000	0.000	0.000	0.713	0.000	0.604	0.000	0.910
	0.814				0.722								0.741				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	45	15	0	5	62	0	0	0	0	0	0	19	0	3	0	149
4:15 PM	0	38	11	0	7	67	0	0	0	0	0	0	7	0	4	0	134
4:30 PM	0	41	15	0	10	79	0	0	0	0	0	0	13	0	4	0	162
4:45 PM	0	58	10	0	6	66	0	0	0	0	0	0	9	0	3	0	152
5:00 PM	0	52	20	0	8	69	0	0	0	0	0	0	14	0	2	0	165
5:15 PM	0	52	11	0	9	64	0	0	0	0	0	0	10	0	2	0	148
5:30 PM	0	42	13	0	5	62	0	0	0	0	0	0	9	0	3	0	134
5:45 PM	0	55	20	0	5	49	0	0	0	0	0	0	11	0	4	0	144
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	383	115	0	55	518	0	0	0	0	0	0	92	0	25	0	1188
APPROACH %'s :	0.00%	76.91%	23.09%	0.00%	9.60%	90.40%	0.00%	0.00%					78.63%	0.00%	21.37%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	203	56	0	33	278	0	0	0	0	0	0	46	0	11	0	627
PEAK HR FACTOR :	0.000	0.875	0.700	0.000	0.825	0.880	0.000	0.000	0.000	0.000	0.000	0.000	0.821	0.000	0.688	0.000	0.950
	0.899				0.874								0.838				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Santa Fe Dr & Jones Rd
City: Winton
Control: 0

Project ID: 18-07324-009
Date: 9/25/2018

Bikes

NS/EW Streets:	Santa Fe Dr				Santa Fe Dr				Jones Rd				Jones Rd				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Santa Fe Dr & Jones Rd **Project ID:** 18-07324-009
City: Winton **Date:** 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Santa Fe Dr		Santa Fe Dr		Jones Rd		Jones Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0
APPROACH %'s :									
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	1	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	1	0	0	0	0	0	1
4:45 PM	0	1	0	0	0	0	0	0	1
5:00 PM	0	0	0	1	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	1	1	2	0	0	0	0	4
APPROACH %'s :	0.00%	100.00%	33.33%	66.67%					
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	0	1	1	1	0	0	0	0	3
PEAK HR FACTOR :		0.250	0.250	0.250					0.750
	0.250		0.500						

Prepared by National Data & Surveying Services

Santa Fe Dr & Walnut Ave

Peak Hour Turning Movement Count

ID: 18-07324-010
City: Winton

Day: Tuesday
Date: 09/25/2018

	PEAK HOURS	COUNT PERIODS
AM	07:15 AM - 08:15 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:30 PM - 05:30 PM	04:00 PM - 06:00 PM

Santa Fe Dr — SOUTHBOUND

	Right	Thru	Left	U-Turn	Approach (entering)
AM	29	174	28	0	251
NOON	0	0	0	0	0
PM	31	261	38	0	268
Red (other)	0	0	0	0	

Santa Fe Dr — NORTHBOUND

	Departing	U-Turn	Left	Thru	Right
PM	382	0	142	216	9
NOON	0	0	0	0	0
AM	341	0	112	177	20
Red (other)		0	0	0	0

Walnut Ave — EASTBOUND

	AM	NOON	PM	Red (other)
Departing	278	0	263	
U-Turn	0	0	0	0
Left	26	0	25	0
Thru	140	0	162	0
Right	127	0	115	0

Walnut Ave — WESTBOUND

	PM	NOON	AM	Red (other)
Right	27	0	48	0
Thru	90	0	137	0
Left	6	0	40	0
U-Turn	0	0	0	0
Departing	209	0	188	

CONTROL

0

	AM	NOON	PM
TEV	1058	0	1122
PHF	0.84		0.92

Total Vehicles (AM)

Approach	Left	Thru	Right
Southbound	28	174	29
Eastbound	26	140	127
Westbound	40	137	48
Northbound	112	177	20

Total Vehicles (Noon)

Approach	Left	Thru	Right
Southbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A

Total Vehicles (PM)

Approach	Left	Thru	Right
Southbound	38	261	31
Eastbound	25	162	115
Westbound	6	90	27
Northbound	142	216	9

Bikes (AM)

Approach	Left	Thru	Right
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0

Bikes (NOON)

Approach	Left	Thru	Right
Southbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A

Bikes (PM)

Approach	Left	Thru	Right
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	2	0
Northbound	0	0	0

Pedestrians (Crosswalks)

Crosswalk	Direction	AM	NOON	PM
North leg	Eastbound	1	0	0
North leg	Westbound	6	0	0
South leg	Eastbound	1	0	0
South leg	Westbound	0	0	0
West leg	Southbound	0	0	0
West leg	Northbound	0	0	0
East leg	Southbound	0	0	0
East leg	Northbound	0	0	0
NW diagonal		0	0	0
NE diagonal		0	0	0
SW diagonal		0	0	0
SE diagonal		0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Santa Fe Dr & Walnut Ave
City: Winton
Control:

Project ID: 18-07324-010
Date: 9/25/2018

Total

NS/EW Streets:	Santa Fe Dr				Santa Fe Dr				Walnut Ave				Walnut Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	20	42	2	0	1	30	5	0	3	11	22	0	2	21	6	0	165
7:15 AM	24	40	6	0	10	50	10	0	3	28	41	0	12	35	7	0	266
7:30 AM	30	54	8	0	7	42	10	0	3	37	36	0	14	57	17	0	315
7:45 AM	33	38	4	0	7	49	4	0	11	57	27	0	12	29	20	0	291
8:00 AM	25	45	2	0	4	33	5	0	9	18	23	0	2	16	4	0	186
8:15 AM	24	38	1	0	1	45	2	0	6	13	29	0	0	11	0	0	170
8:30 AM	14	40	1	0	3	39	1	0	2	7	20	0	1	12	1	0	141
8:45 AM	11	36	0	0	3	43	1	0	0	15	20	0	1	16	2	0	148
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	181	333	24	0	36	331	38	0	37	186	218	0	44	197	57	0	1682
APPROACH %'s :	33.64%	61.90%	4.46%	0.00%	8.89%	81.73%	9.38%	0.00%	8.39%	42.18%	49.43%	0.00%	14.77%	66.11%	19.13%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	112	177	20	0	28	174	29	0	26	140	127	0	40	137	48	0	1058
PEAK HR FACTOR :	0.848	0.819	0.625	0.000	0.700	0.870	0.725	0.000	0.591	0.614	0.774	0.000	0.714	0.601	0.600	0.000	0.840
	0.840				0.825				0.771				0.639				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	36	57	2	0	13	68	4	0	2	30	31	0	3	22	4	0	272
4:15 PM	25	44	4	0	12	58	5	0	5	35	30	0	1	19	2	0	240
4:30 PM	34	49	2	0	10	67	9	0	7	37	26	0	3	17	6	0	267
4:45 PM	38	50	3	0	9	68	6	0	7	55	34	0	2	27	7	0	306
5:00 PM	39	65	2	0	9	69	6	0	7	38	27	0	0	20	6	0	288
5:15 PM	31	52	2	0	10	57	10	0	4	32	28	0	1	26	8	0	261
5:30 PM	37	49	5	0	12	60	5	0	7	32	29	0	2	18	7	0	263
5:45 PM	36	55	3	0	4	53	3	0	7	31	27	0	2	25	6	0	252
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	276	421	23	0	79	500	48	0	46	290	232	0	14	174	46	0	2149
APPROACH %'s :	38.33%	58.47%	3.19%	0.00%	12.60%	79.74%	7.66%	0.00%	8.10%	51.06%	40.85%	0.00%	5.98%	74.36%	19.66%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	142	216	9	0	38	261	31	0	25	162	115	0	6	90	27	0	1122
PEAK HR FACTOR :	0.910	0.831	0.750	0.000	0.950	0.946	0.775	0.000	0.893	0.736	0.846	0.000	0.500	0.833	0.844	0.000	0.917
	0.866				0.959				0.786				0.854				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Santa Fe Dr & Walnut Ave
City: Winton
Control: 0

Project ID: 18-07324-010
Date: 9/25/2018

Bikes

NS/EW Streets:	Santa Fe Dr				Santa Fe Dr				Walnut Ave				Walnut Ave				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	0	0	0	0	0	1	0	0	3	0	0	5
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250
														0.250			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Santa Fe Dr & Walnut Ave **Project ID:** 18-07324-010
City: Winton **Date:** 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Santa Fe Dr		Santa Fe Dr		Walnut Ave		Walnut Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	1	3	0	0	0	0	0	0	4
7:30 AM	0	1	0	0	0	0	0	0	1
7:45 AM	0	1	0	0	0	0	0	0	1
8:00 AM	0	1	0	0	0	0	0	0	1
8:15 AM	0	1	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	7	0	0	0	0	0	0	8
APPROACH %'s :	12.50%	87.50%							
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	1	6	0	0	0	0	0	0	7
PEAK HR FACTOR :	0.250	0.500							0.438
	0.438								

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	1	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	1	0	0	0	0	0	1
5:30 PM	0	1	0	0	0	0	0	0	1
5:45 PM	1	0	0	0	0	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	2	1	1	0	0	0	0	0	4
APPROACH %'s :	66.67%	33.33%	100.00%	0.00%					
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	0	0	1	0	0	0	0	0	1
PEAK HR FACTOR :			0.250						0.250
			0.250						

Prepared by National Data & Surveying Services

California St & Santa Fe Dr

Peak Hour Turning Movement Count

ID: 18-07324-011
City: Winton

Day: Tuesday
Date: 09/25/2018

	PEAK HOURS	COUNT PERIODS
AM	07:15 AM - 08:15 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:45 PM - 05:45 PM	04:00 PM - 06:00 PM

California St — SOUTHBOUND

	↲	↓	↳	U	⇧
AM	118	0	65	0	99
NOON	0	0	0	0	0
PM	74	0	71	0	167
	0	0	0	0	

Santa Fe Dr — EASTBOUND

	AM	NOON	PM	
⇦	387	0	449	
U	0	0	1	0
↱	67	0	71	0
→	386	0	353	0
↴	0	0	0	0

Santa Fe Dr — WESTBOUND

		PM	NOON	AM
↰	0	96	0	32
←	0	374	0	269
↲	0	0	0	0
U	0	0	0	0
⇨		424	0	451

CONTROL

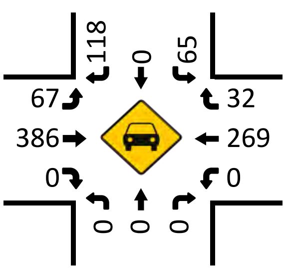
0

	AM	NOON	PM
TEV	937	0	1040
PHF	0.84		0.87

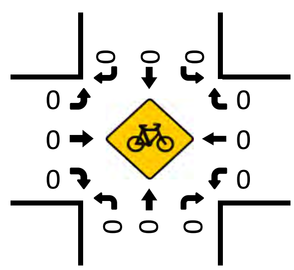
California St — NORTHBOUND

	⇩	U	↰	↑	↱
		0	0	0	0
PM	0	0	0	0	0
NOON	0	0	0	0	0
AM	0	0	0	0	0

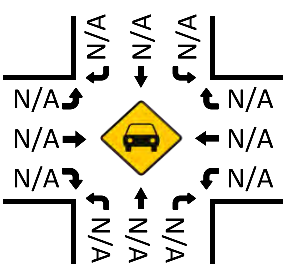
Total Vehicles (AM)



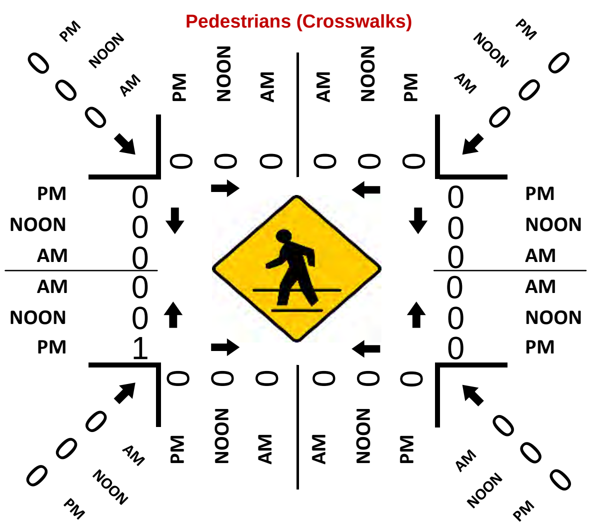
Bikes (AM)



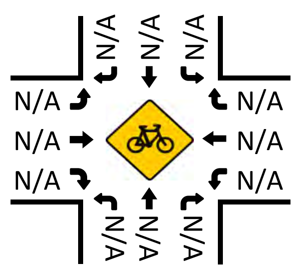
Total Vehicles (Noon)



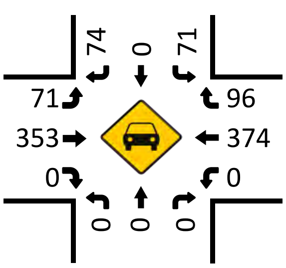
Pedestrians (Crosswalks)



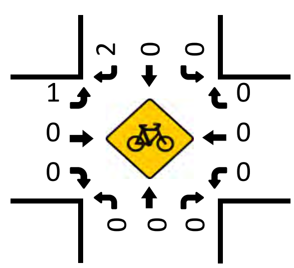
Bikes (NOON)



Total Vehicles (PM)



Bikes (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: California St & Santa Fe Dr
City: Winton
Control:

Project ID: 18-07324-011
Date: 9/25/2018

Total

NS/EW Streets:	California St				California St				Santa Fe Dr				Santa Fe Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	14	0	21	0	3	47	0	0	0	52	6	0	143
7:15 AM	0	0	0	0	21	0	24	0	9	103	0	0	0	76	5	0	238
7:30 AM	0	0	0	0	22	0	46	0	17	110	0	0	0	72	12	0	279
7:45 AM	0	0	0	0	8	0	27	0	27	101	0	0	0	58	4	0	225
8:00 AM	0	0	0	0	14	0	21	0	14	72	0	0	0	63	11	0	195
8:15 AM	0	0	0	0	12	0	6	0	2	83	0	0	0	53	11	0	167
8:30 AM	0	0	0	0	23	0	8	0	8	70	0	0	0	54	8	0	171
8:45 AM	0	0	0	0	18	0	15	0	4	60	0	0	0	57	10	0	164
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	132	0	168	0	84	646	0	0	0	485	67	0	1582
APPROACH %'s :					44.00%	0.00%	56.00%	0.00%	11.51%	88.49%	0.00%	0.00%	0.00%	87.86%	12.14%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	65	0	118	0	67	386	0	0	0	269	32	0	937
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.739	0.000	0.641	0.000	0.620	0.877	0.000	0.000	0.000	0.885	0.667	0.000	
						0.673				0.885				0.896			0.840

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	9	0	13	0	13	68	0	0	0	84	15	0	202
4:15 PM	0	0	0	0	14	0	11	0	10	78	0	0	0	84	17	0	214
4:30 PM	0	0	0	0	14	0	16	0	20	75	0	0	0	76	21	0	222
4:45 PM	0	0	0	0	13	0	19	0	20	92	0	0	0	94	17	0	255
5:00 PM	0	0	0	0	16	0	15	0	30	99	0	0	0	104	35	0	299
5:15 PM	0	0	0	0	19	0	18	0	11	86	0	0	0	94	24	0	252
5:30 PM	0	0	0	0	23	0	22	0	10	76	0	1	0	82	20	0	234
5:45 PM	0	0	0	0	15	0	21	0	18	77	0	0	0	87	20	0	238
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	123	0	135	0	132	651	0	1	0	705	169	0	1916
APPROACH %'s :					47.67%	0.00%	52.33%	0.00%	16.84%	83.04%	0.00%	0.13%	0.00%	80.66%	19.34%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	71	0	74	0	71	353	0	1	0	374	96	0	1040
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.772	0.000	0.841	0.000	0.592	0.891	0.000	0.250	0.000	0.899	0.686	0.000	
						0.806				0.824				0.845			0.870

National Data & Surveying Services

Intersection Turning Movement Count

Location: California St & Santa Fe Dr
City: Winton
Control: 0

Project ID: 18-07324-011
Date: 9/25/2018

Bikes

NS/EW Streets:	California St				California St				Santa Fe Dr				Santa Fe Dr				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	0	2	0	3	0	0	0	0	0	0	0	6
APPROACH %'s :					33.33%	0.00%	66.67%	0.00%	100.00%	0.00%	0.00%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	3
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750
					0.500				0.250								

National Data & Surveying Services

Intersection Turning Movement Count

Location: California St & Santa Fe Dr **Project ID:** 18-07324-011
City: Winton **Date:** 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	California St		California St		Santa Fe Dr		Santa Fe Dr		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0
APPROACH %'s :									
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	1	0	1
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	1	1	2
APPROACH %'s :							50.00%	50.00%	
PEAK HR :	04:45 PM - 05:45 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	1	0	1
PEAK HR FACTOR :							0.250		0.250
							0.250		

Prepared by National Data & Surveying Services

Chestnut Ln & Santa Fe Dr

Peak Hour Turning Movement Count

ID: 18-07324-012
City: Winton

Day: Tuesday
Date: 09/25/2018

PEAK HOURS		COUNT PERIODS
07:15 AM - 08:15 AM	AM	07:00 AM - 09:00 AM
NONE	NOON	NONE
04:45 PM - 05:45 PM	PM	04:00 PM - 06:00 PM

Chestnut Ln — SOUTHBOUND

	Right	Thru	Left	U-Turn	Out
AM	37	0	50	0	72
NOON	0	0	0	0	0
PM	7	0	19	0	50
Bikes/Peds	0	0	0	0	

Santa Fe Dr — EASTBOUND

	AM	NOON	PM	
Out	301	0	481	
U-Turn	0	0	0	0
Left	22	0	5	0
Thru	428	0	424	0
Right	0	0	0	0

Santa Fe Dr — WESTBOUND

		PM	NOON	AM
Right	0	45	0	50
Thru	0	474	0	264
Left	0	0	0	0
U-Turn	0	0	0	0
Out		443	0	478

Chestnut Ln — NORTHBOUND

	Out	U-Turn	Left	Thru	Right
Bikes/Peds		0	0	0	0
PM	0	0	0	0	0
NOON	0	0	0	0	0
AM	0	0	0	0	0

CONTROL

0

	AM	NOON	PM
TEV	851	0	974
PHF	0.86		0.92

Total Vehicles (AM)

SB: 37 / 0 / 50; EB: 22 / 428 / 0; WB: 50 / 264 / 0; NB: 0 / 0 / 0

Total Vehicles (Noon)

SB: N/A / N/A / N/A; EB: N/A / N/A / N/A; WB: N/A / N/A / N/A; NB: N/A / N/A / N/A

Total Vehicles (PM)

SB: 7 / 0 / 19; EB: 5 / 424 / 0; WB: 45 / 474 / 0; NB: 0 / 0 / 0

Bikes (AM)

SB: 0 / 0 / 0; EB: 0 / 0 / 0; WB: 0 / 0 / 0; NB: 0 / 0 / 0

Bikes (NOON)

SB: N/A / N/A / N/A; EB: N/A / N/A / N/A; WB: N/A / N/A / N/A; NB: N/A / N/A / N/A

Bikes (PM)

SB: 0 / 0 / 0; EB: 0 / 0 / 0; WB: 0 / 0 / 0; NB: 0 / 0 / 0

Pedestrians (Crosswalks)

Crosswalk	PM	NOON	AM
North leg (west side)	0	0	0
North leg (east side)	0	0	0
West leg (north)	0	0	0
West leg (south)	0	0	0
East leg (north)	0	0	0
East leg (south)	0	0	0
South leg (west side)	0	0	0
South leg (east side)	0	0	0
Diagonals	0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Chestnut Ln & Santa Fe Dr
City: Winton
Control:

Project ID: 18-07324-012
Date: 9/25/2018

Total

NS/EW Streets:	Chestnut Ln				Chestnut Ln				Santa Fe Dr				Santa Fe Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	12	0	4	0	1	57	0	0	0	50	2	0	126
7:15 AM	0	0	0	0	18	0	8	0	6	118	0	0	0	70	13	0	233
7:30 AM	0	0	0	0	10	0	19	0	8	126	0	0	0	69	15	0	247
7:45 AM	0	0	0	0	13	0	8	0	8	100	0	0	0	50	10	0	189
8:00 AM	0	0	0	0	9	0	2	0	0	84	0	0	0	75	12	0	182
8:15 AM	0	0	0	0	8	0	0	0	1	92	0	0	0	62	5	0	168
8:30 AM	0	0	0	0	1	0	0	0	3	89	0	0	0	61	3	0	157
8:45 AM	0	0	0	0	4	0	0	0	1	77	0	0	0	69	5	0	156
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	75	0	41	0	28	743	0	0	0	506	65	0	1458
APPROACH %'s :					64.66%	0.00%	35.34%	0.00%	3.63%	96.37%	0.00%	0.00%	0.00%	88.62%	11.38%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	50	0	37	0	22	428	0	0	0	264	50	0	851
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.694	0.000	0.487	0.000	0.688	0.849	0.000	0.000	0.000	0.880	0.833	0.000	0.861
					0.750				0.840				0.902				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	8	0	3	0	3	70	0	0	0	85	9	0	178
4:15 PM	0	0	0	0	8	0	3	0	3	91	0	0	0	104	11	0	220
4:30 PM	0	0	0	0	5	0	0	0	1	89	0	0	0	93	8	0	196
4:45 PM	0	0	0	0	7	0	3	0	2	107	0	0	0	112	8	0	239
5:00 PM	0	0	0	0	2	0	1	0	2	114	0	0	0	131	14	0	264
5:15 PM	0	0	0	0	2	0	3	0	0	105	0	0	0	118	13	0	241
5:30 PM	0	0	0	0	8	0	0	0	1	98	0	0	0	113	10	0	230
5:45 PM	0	0	0	0	9	0	6	0	6	87	0	0	0	91	9	0	208
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	49	0	19	0	18	761	0	0	0	847	82	0	1776
APPROACH %'s :					72.06%	0.00%	27.94%	0.00%	2.31%	97.69%	0.00%	0.00%	0.00%	91.17%	8.83%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	19	0	7	0	5	424	0	0	0	474	45	0	974
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.594	0.000	0.583	0.000	0.625	0.930	0.000	0.000	0.000	0.905	0.804	0.000	0.922
					0.650				0.925				0.895				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Chestnut Ln & Santa Fe Dr
City: Winton
Control: 0

Project ID: 18-07324-012
Date: 9/25/2018

Bikes

NS/EW Streets:	Chestnut Ln				Chestnut Ln				Santa Fe Dr				Santa Fe Dr				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
APPROACH %'s :									50.00%	50.00%	0.00%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Chestnut Ln & Santa Fe Dr
City: Winton
Project ID: 18-07324-012
Date: 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Chestnut Ln		Chestnut Ln		Santa Fe Dr		Santa Fe Dr		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	1	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	0	0	0	0	0	0	0	1
APPROACH %'s :	100.00%	0.00%							
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0
APPROACH %'s :									
PEAK HR :	04:45 PM - 05:45 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

Prepared by National Data & Surveying Services

Shaffer Rd & Santa Fe Dr

Peak Hour Turning Movement Count

ID: 18-07324-013
City: Atwater

Day: Tuesday
Date: 09/25/2018

	PEAK HOURS	COUNT PERIODS
AM	07:15 AM - 08:15 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:45 PM - 05:45 PM	04:00 PM - 06:00 PM

Shaffer Rd — SOUTHBOUND

					Out
AM	4	114	124	0	128
NOON	0	0	0	0	0
PM	7	152	91	0	157
	0	0	0	0	

Santa Fe Dr — EASTBOUND

	AM	NOON	PM	
Out	302	0	500	
U-turn	0	0	0	0
Left	3	0	3	0
Through	362	0	308	0
Right	95	0	120	0

Santa Fe Dr — WESTBOUND

		PM	NOON	AM
Right	0	59	0	41
Through	0	369	0	199
Left	0	169	0	118
U-turn	0	0	0	0
Out		479	0	710

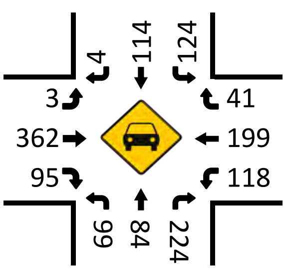
Shaffer Rd — NORTHBOUND

	Out				
		0	0	0	0
PM	441	0	124	95	80
NOON	0	0	0	0	0
AM	327	0	99	84	224

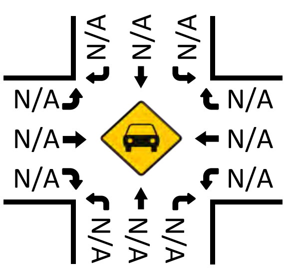
CONTROL: 0

	AM	NOON	PM
TEV	1467	0	1577
PHF	0.93		0.93

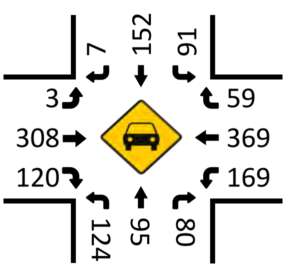
Total Vehicles (AM)



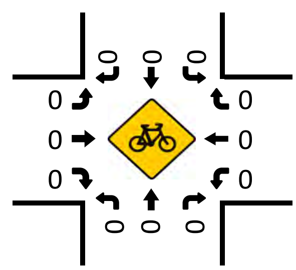
Total Vehicles (Noon)



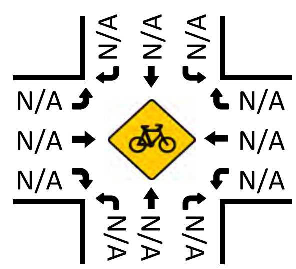
Total Vehicles (PM)



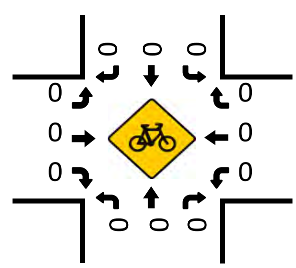
Bikes (AM)



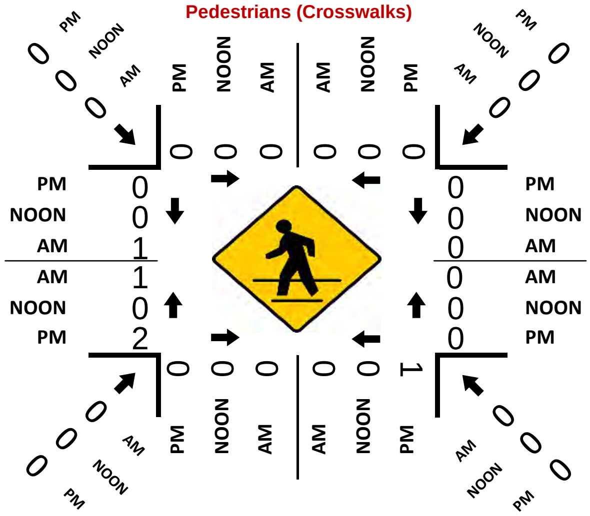
Bikes (NOON)



Bikes (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Shaffer Rd & Santa Fe Dr
City: Atwater
Control:

Project ID: 18-07324-013
Date: 9/25/2018

Total

NS/EW Streets:	Shaffer Rd				Shaffer Rd				Santa Fe Dr				Santa Fe Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	19	17	42	0	12	24	0	0	0	56	20	0	16	32	7	0	245
7:15 AM	33	18	48	0	15	31	0	0	1	79	32	0	44	48	6	0	355
7:30 AM	31	17	82	0	51	32	0	0	0	81	18	0	25	43	15	0	395
7:45 AM	11	15	39	0	40	32	2	0	1	100	24	0	38	54	6	0	362
8:00 AM	24	34	55	0	18	19	2	0	1	102	21	0	11	54	14	0	355
8:15 AM	24	12	34	0	9	21	3	0	1	91	23	0	17	42	12	0	289
8:30 AM	20	7	23	0	16	17	2	0	0	69	17	0	12	43	9	0	235
8:45 AM	16	13	24	0	13	13	0	0	0	64	27	0	13	50	10	0	243
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	178	133	347	0	174	189	9	0	4	642	182	0	176	366	79	0	2479
APPROACH %'s :	27.05%	20.21%	52.74%	0.00%	46.77%	50.81%	2.42%	0.00%	0.48%	77.54%	21.98%	0.00%	28.34%	58.94%	12.72%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	99	84	224	0	124	114	4	0	3	362	95	0	118	199	41	0	1467
PEAK HR FACTOR :	0.750	0.618	0.683	0.000	0.608	0.891	0.500	0.000	0.750	0.887	0.742	0.000	0.670	0.921	0.683	0.000	0.928
	0.783				0.729				0.920				0.913				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	25	17	22	0	24	42	2	0	0	57	18	0	36	72	14	0	329
4:15 PM	27	21	27	0	37	48	4	0	0	72	26	0	48	80	15	0	405
4:30 PM	25	19	18	0	17	33	1	0	0	62	26	0	40	81	17	0	339
4:45 PM	20	24	23	0	18	35	2	0	0	90	25	0	37	91	13	0	378
5:00 PM	38	26	19	0	18	28	3	0	2	77	33	0	47	101	15	0	407
5:15 PM	35	25	21	0	37	46	2	0	0	76	30	0	49	89	15	0	425
5:30 PM	31	20	17	0	18	43	0	0	1	65	32	0	36	88	16	0	367
5:45 PM	30	22	19	0	10	22	0	0	0	78	28	0	31	68	11	0	319
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	231	174	166	0	179	297	14	0	3	577	218	0	324	670	116	0	2969
APPROACH %'s :	40.46%	30.47%	29.07%	0.00%	36.53%	60.61%	2.86%	0.00%	0.38%	72.31%	27.32%	0.00%	29.19%	60.36%	10.45%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	124	95	80	0	91	152	7	0	3	308	120	0	169	369	59	0	1577
PEAK HR FACTOR :	0.816	0.913	0.870	0.000	0.615	0.826	0.583	0.000	0.375	0.856	0.909	0.000	0.862	0.913	0.922	0.000	0.928
	0.901				0.735				0.937				0.916				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Shaffer Rd & Santa Fe Dr
City: Atwater
Control: 0

Project ID: 18-07324-013
Date: 9/25/2018

Bikes

NS/EW Streets:	Shaffer Rd				Shaffer Rd				Santa Fe Dr				Santa Fe Dr				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2
APPROACH %'s :					0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Shaffer Rd & Santa Fe Dr **Project ID:** 18-07324-013
City: Atwater **Date:** 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Shaffer Rd		Shaffer Rd		Santa Fe Dr		Santa Fe Dr		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	1	1	2
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	1	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	1	1	1	3
APPROACH %'s :					0.00%	100.00%	50.00%	50.00%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	1	1	2
PEAK HR FACTOR :							0.250	0.250	0.250
							0.250		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	1	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	2	0	2
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	1	0	0	2	0	3
APPROACH %'s :			0.00%	100.00%			100.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM								TOTAL
PEAK HR VOL :	0	0	0	1	0	0	2	0	3
PEAK HR FACTOR :				0.250			0.250		0.375
			0.250				0.250		

Prepared by National Data & Surveying Services

Winton Way & Camellia Ave

Peak Hour Turning Movement Count

ID: 18-07324-014
City: Winton

Day: Tuesday
Date: 09/25/2018

PEAK HOURS	COUNT PERIODS
AM: 07:15 AM - 08:15 AM	AM: 07:00 AM - 09:00 AM
NOON: NONE	NOON: NONE
PM: 04:30 PM - 05:30 PM	PM: 04:00 PM - 06:00 PM

Winton Way – SOUTHBOUND

	Right	Thru	Left	U-Turn	Exit
AM	0	535	38	0	511
NOON	0	0	0	0	0
PM	0	537	31	0	503
	0	0	0	0	

Camellia Ave – WESTBOUND

		PM	NOON	AM
Right	0	10	0	82
Thru	0	0	0	0
Left	0	63	0	95
U-Turn	0	0	0	0
Exit		82	0	130

Camellia Ave – EASTBOUND

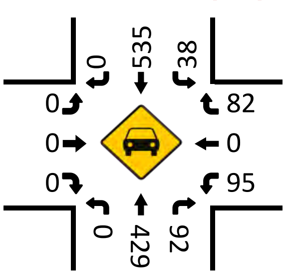
	AM	NOON	PM	
Exit	0	0	0	
U-Turn	0	0	0	0
Left	0	0	0	0
Thru	0	0	0	0
Right	0	0	0	0

Winton Way – NORTHBOUND

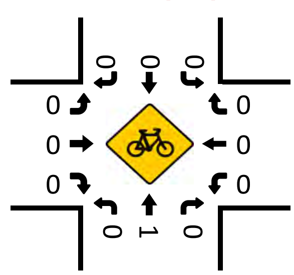
	Exit	U-Turn	Left	Thru	Right
		0	0	0	0
PM	601	1	0	493	51
NOON	0	0	0	0	0
AM	630	0	0	429	92

CONTROL			
	0		
	AM	NOON	PM
TEV	1271	0	1186
PHF	0.83		0.96

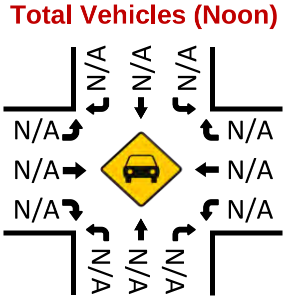
Total Vehicles (AM)



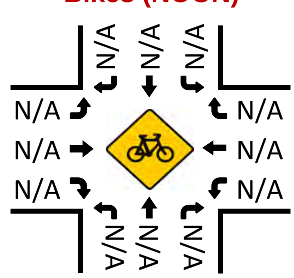
Bikes (AM)



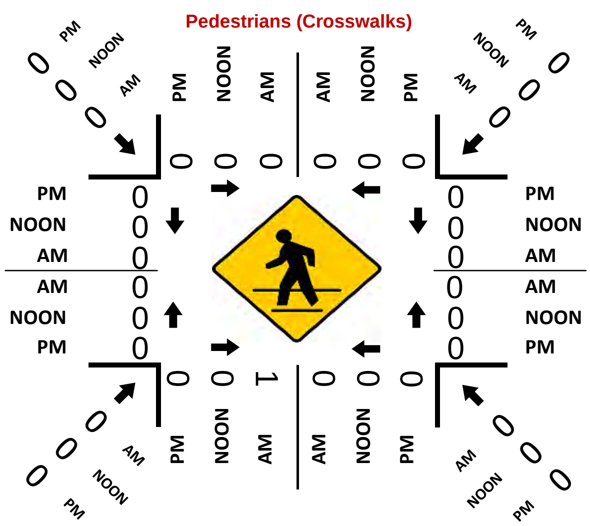
Total Vehicles (Noon)



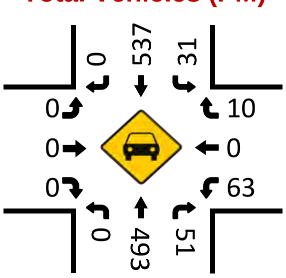
Bikes (NOON)



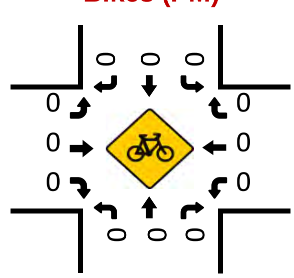
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Camellia Ave
City: Winton
Control:

Project ID: 18-07324-014
Date: 9/25/2018

Total

NS/EW Streets:	Winton Way				Winton Way				Camellia Ave				Camellia Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	73	18	0	7	84	0	0	0	0	0	0	17	0	4	0	203
7:15 AM	0	106	39	0	8	119	0	0	0	0	0	0	29	0	9	0	310
7:30 AM	0	115	28	0	12	159	0	0	0	0	0	0	28	0	24	0	366
7:45 AM	0	118	17	0	13	178	0	0	0	0	0	0	27	0	29	0	382
8:00 AM	0	90	8	0	5	79	0	0	0	0	0	0	11	0	20	0	213
8:15 AM	0	55	8	0	3	58	0	0	0	0	0	0	6	0	3	0	133
8:30 AM	0	63	10	0	3	61	0	0	0	0	0	0	7	0	4	0	148
8:45 AM	0	57	12	0	3	84	0	0	0	0	0	0	13	0	2	0	171
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	677	140	0	54	822	0	0	0	0	0	0	138	0	95	0	1926
APPROACH %'s :	0.00%	82.86%	17.14%	0.00%	6.16%	93.84%	0.00%	0.00%					59.23%	0.00%	40.77%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	429	92	0	38	535	0	0	0	0	0	0	95	0	82	0	1271
PEAK HR FACTOR :	0.000	0.909	0.590	0.000	0.731	0.751	0.000	0.000	0.000	0.000	0.000	0.000	0.819	0.000	0.707	0.000	0.832
	0.898				0.750								0.790				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	123	14	0	3	127	0	0	0	0	0	0	14	0	4	0	285
4:15 PM	0	98	15	0	4	112	0	0	0	0	0	0	12	0	4	0	245
4:30 PM	0	140	11	0	6	129	0	0	0	0	0	0	11	0	3	0	300
4:45 PM	0	136	8	1	9	129	0	0	0	0	0	0	13	0	1	0	297
5:00 PM	0	118	12	0	14	140	0	0	0	0	0	0	21	0	3	0	308
5:15 PM	0	99	20	0	2	139	0	0	0	0	0	0	18	0	3	0	281
5:30 PM	0	118	13	0	6	136	0	0	0	0	0	0	16	0	3	0	292
5:45 PM	0	123	12	0	6	100	0	0	0	0	0	0	12	0	1	0	254
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	955	105	1	50	1012	0	0	0	0	0	0	117	0	22	0	2262
APPROACH %'s :	0.00%	90.01%	9.90%	0.09%	4.71%	95.29%	0.00%	0.00%					84.17%	0.00%	15.83%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	493	51	1	31	537	0	0	0	0	0	0	63	0	10	0	1186
PEAK HR FACTOR :	0.000	0.880	0.638	0.250	0.554	0.959	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.833	0.000	0.963
	0.902				0.922								0.760				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Camellia Ave
City: Winton
Control: 0

Project ID: 18-07324-014
Date: 9/25/2018

Bikes

NS/EW Streets:	Winton Way				Winton Way				Camellia Ave				Camellia Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
	0.250																

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
APPROACH %'s :					0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Camellia Ave **Project ID:** 18-07324-014
City: Winton **Date:** 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Winton Way		Winton Way		Camellia Ave		Camellia Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	1	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	1	0	0	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	2	0	0	0	0	0	2
APPROACH %'s :			100.00%	0.00%					
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	0	0	1	0	0	0	0	0	1
PEAK HR FACTOR :			0.250						0.250
			0.250						

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	1	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	1	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	1	1	0	0	0	2
APPROACH %'s :			0.00%	100.00%	100.00%	0.00%			
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

Prepared by National Data & Surveying Services

Shaffer Rd & Olive Ave

Peak Hour Turning Movement Count

ID: 18-07324-015
City: Winton

Day: Tuesday
Date: 09/25/2018

	PEAK HOURS	COUNT PERIODS
AM	07:15 AM - 08:15 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:30 PM - 05:30 PM	04:00 PM - 06:00 PM

Shaffer Rd — SOUTHBOUND

	Right	Thru	Left	U-turn	Approach total
AM	15	122	1	0	121
NOON	0	0	0	0	0
PM	36	250	4	0	119
Bikes	0	0	0	0	

Olive Ave — EASTBOUND

	AM	NOON	PM
Departing	29	0	62
U-turn (0)	0	0	0
Left (0)	13	0	17
Thru (0)	0	0	1
Right (0)	41	0	18

Olive Ave — WESTBOUND

	PM	NOON	AM
Right (0)	0	0	0
Thru (0)	1	0	1
Left (0)	5	0	0
U-turn (0)	0	0	0
Departing	8	0	1

Shaffer Rd — NORTHBOUND

	Departing	U-turn	Left	Thru	Right
Bikes		0	0	0	0
PM	273	0	25	102	3
NOON	0	0	0	0	0
AM	163	0	13	108	0

CONTROL

0

	AM	NOON	PM
TEV	314	0	462
PHF	0.86		0.71

Total Vehicles (AM)

SB: 15, 122, 1 — EB: 13, 0, 41 — WB: 0, 1, 0 — NB: 13, 108, 0

Total Vehicles (Noon)

All movements: N/A

Total Vehicles (PM)

SB: 36, 250, 4 — EB: 17, 1, 18 — WB: 0, 1, 5 — NB: 25, 102, 3

Bikes (AM)

All movements: 0

Bikes (NOON)

All movements: N/A

Bikes (PM)

All movements: 0

Pedestrians (Crosswalks)

Crosswalk		PM	NOON	AM	AM	NOON	PM
North		16	0	2	2	0	20
South		0	0	0	0	0	0

Crosswalk		PM	NOON	AM	AM	NOON	PM
West		0	0	1	0	0	0
East		0	0	0	0	0	0

Diagonal crossings (all corners): PM 0, NOON 0, AM 0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Shaffer Rd & Olive Ave
City: Winton
Control:

Project ID: 18-07324-015
Date: 9/25/2018

Total

NS/EW Streets:	Shaffer Rd				Shaffer Rd				Olive Ave				Olive Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	2	15	0	0	0	28	3	0	5	0	3	0	1	0	0	0	57
7:15 AM	3	21	0	0	0	36	2	0	5	0	9	0	0	0	0	0	76
7:30 AM	3	26	0	0	0	39	4	0	5	0	14	0	0	0	0	0	91
7:45 AM	4	15	0	0	0	29	5	0	2	0	11	0	0	1	0	0	67
8:00 AM	3	46	0	0	1	18	4	0	1	0	7	0	0	0	0	0	80
8:15 AM	4	21	0	0	0	24	3	0	2	0	2	0	0	0	1	0	57
8:30 AM	4	15	0	0	1	21	4	0	1	0	3	0	0	0	0	0	49
8:45 AM	2	12	0	0	0	15	1	0	2	0	4	0	0	0	0	0	36
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	25	171	0	0	2	210	26	0	23	0	53	0	1	1	1	0	513
APPROACH %'s :	12.76%	87.24%	0.00%	0.00%	0.84%	88.24%	10.92%	0.00%	30.26%	0.00%	69.74%	0.00%	33.33%	33.33%	33.33%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	13	108	0	0	1	122	15	0	13	0	41	0	0	1	0	0	314
PEAK HR FACTOR :	0.813	0.587	0.000	0.000	0.250	0.782	0.750	0.000	0.650	0.000	0.732	0.000	0.000	0.250	0.000	0.000	0.863
	0.617				0.802				0.711				0.250				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	6	25	0	0	0	76	19	0	2	0	4	0	0	0	0	0	132
4:15 PM	8	23	1	0	2	75	10	0	2	0	1	0	2	1	0	0	125
4:30 PM	3	24	0	0	2	57	6	0	5	0	4	0	2	0	0	0	103
4:45 PM	6	19	1	0	0	53	10	0	3	0	2	0	0	0	0	0	94
5:00 PM	8	29	0	0	1	49	10	0	2	0	4	0	0	0	0	0	103
5:15 PM	8	30	2	0	1	91	10	0	7	1	8	0	3	1	0	0	162
5:30 PM	7	27	0	0	1	47	7	0	4	0	5	0	1	0	0	0	99
5:45 PM	3	29	0	0	0	28	14	0	4	0	3	0	1	0	0	0	82
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	49	206	4	0	7	476	86	0	29	1	31	0	9	2	0	0	900
APPROACH %'s :	18.92%	79.54%	1.54%	0.00%	1.23%	83.66%	15.11%	0.00%	47.54%	1.64%	50.82%	0.00%	81.82%	18.18%	0.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	25	102	3	0	4	250	36	0	17	1	18	0	5	1	0	0	462
PEAK HR FACTOR :	0.781	0.850	0.375	0.000	0.500	0.687	0.900	0.000	0.607	0.250	0.563	0.000	0.417	0.250	0.000	0.000	0.713
	0.813				0.711				0.563				0.375				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Shaffer Rd & Olive Ave
City: Winton
Control: 0

Project ID: 18-07324-015
Date: 9/25/2018

Bikes

NS/EW Streets:	Shaffer Rd				Shaffer Rd				Olive Ave				Olive Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%									
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
APPROACH %'s :					0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Shaffer Rd & Olive Ave **Project ID:** 18-07324-015
City: Winton **Date:** 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Shaffer Rd		Shaffer Rd		Olive Ave		Olive Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	0	0	0	0	0	0	1
8:00 AM	1	2	0	0	0	0	0	1	4
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	1	0	0	0	0	0	0	1	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	3	2	0	0	0	0	0	2	7
APPROACH %'s :	60.00%	40.00%					0.00%	100.00%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	2	2	0	0	0	0	0	1	5
PEAK HR FACTOR :	0.500	0.250						0.250	0.313
	0.333						0.250		

	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
PM	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	3	3	0	0	0	0	0	0	6
4:15 PM	1	1	0	0	0	0	0	0	2
4:30 PM	1	1	0	0	0	0	0	0	2
4:45 PM	3	2	0	0	0	0	0	0	5
5:00 PM	8	9	0	0	0	0	0	0	17
5:15 PM	4	8	0	0	0	0	0	0	12
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	20	24	0	0	0	0	0	0	44
APPROACH %'s :	45.45%	54.55%							
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	16	20	0	0	0	0	0	0	36
PEAK HR FACTOR :	0.500	0.556							0.529
	0.529								

Prepared by National Data & Surveying Services

Cypress Ave & Walnut Ave

Peak Hour Turning Movement Count

ID: 18-07324-016
City: Winton

Day: Tuesday
Date: 09/25/2018

	PEAK HOURS	COUNT PERIODS
AM	07:15 AM - 08:15 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:15 PM - 05:15 PM	04:00 PM - 06:00 PM

Cypress Ave — SOUTHBOUND

	Right	Through	Left	U-Turn	Out
AM	0	1	0	0	1
NOON	0	0	0	0	0
PM	0	1	0	0	2
	0	0	0	0	

Walnut Ave — EASTBOUND

	AM	NOON	PM	
Out	195	0	224	
U-Turn	0	0	0	0
Left	0	0	0	0
Through	164	0	220	0
Right	70	0	63	0

Walnut Ave — WESTBOUND

		PM	NOON	AM
Right	0	2	0	1
Through	0	162	0	138
Left	0	74	0	138
U-Turn	0	0	0	0
Out		306	0	296

CONTROL

0

	AM	NOON	PM
TEV	701	0	670
PHF	0.83		0.89

Cypress Ave — NORTHBOUND

	Out	U-Turn	Left	Through	Right
		0	0	0	0
PM	138	0	62	0	86
NOON	0	0	0	0	0
AM	209	0	57	0	132

Total Vehicles (AM)

Approach	Left/U	Through	Right
Southbound	0	1	0
Eastbound	0	164	70
Westbound	138	138	1
Northbound	57	0	132

Total Vehicles (Noon)

All movements: N/A

Total Vehicles (PM)

Approach	Left/U	Through	Right
Southbound	0	1	0
Eastbound	0	220	63
Westbound	74	162	2
Northbound	62	0	86

Bikes (AM)

All movements: 0

Bikes (NOON)

All movements: N/A

Bikes (PM)

Approach	Left	Through	Right
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	1	0
Northbound	0	0	0

Pedestrians (Crosswalks)

Crosswalk	PM	NOON	AM	AM	NOON	PM
North	3	0	2	2	0	0
West	0	0	1	0	0	2
East	3	0	0	1	0	1
South	1	0	0	0	0	1

Corner diagonals: PM 0, NOON 0, AM 0 (all four corners)

National Data & Surveying Services

Intersection Turning Movement Count

Location: Cypress Ave & Walnut Ave
City: Winton
Control:

Project ID: 18-07324-016
Date: 9/25/2018

Total

NS/EW Streets:	Cypress Ave				Cypress Ave				Walnut Ave				Walnut Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	9	0	7	0	0	0	0	0	0	28	6	0	19	29	0	0	98
7:15 AM	12	0	37	0	0	0	0	0	0	40	21	0	37	31	0	0	178
7:30 AM	14	0	37	0	0	0	0	0	0	47	20	0	51	42	0	0	211
7:45 AM	17	0	47	0	0	1	0	0	0	43	17	0	39	36	1	0	201
8:00 AM	14	0	11	0	0	0	0	0	0	34	12	0	11	29	0	0	111
8:15 AM	8	0	13	0	0	0	0	0	0	33	7	0	5	33	0	0	99
8:30 AM	8	0	8	0	1	0	0	0	0	18	11	0	6	24	0	0	76
8:45 AM	9	0	4	0	0	0	0	0	0	30	7	0	5	23	0	0	78
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	91	0	164	0	1	1	0	0	0	273	101	0	173	247	1	0	1052
APPROACH %'s :	35.69%	0.00%	64.31%	0.00%	50.00%	50.00%	0.00%	0.00%	0.00%	72.99%	27.01%	0.00%	41.09%	58.67%	0.24%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	57	0	132	0	0	1	0	0	0	164	70	0	138	138	1	0	701
PEAK HR FACTOR :	0.838	0.000	0.702	0.000	0.000	0.250	0.000	0.000	0.000	0.872	0.833	0.000	0.676	0.821	0.250	0.000	0.831
	0.738				0.250				0.873				0.745				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	8	0	13	0	0	0	0	0	0	50	15	0	16	48	0	0	150
4:15 PM	18	0	12	0	0	1	0	0	0	53	22	0	15	35	1	0	157
4:30 PM	13	0	26	0	0	0	0	0	0	57	13	0	23	36	1	0	169
4:45 PM	20	0	26	0	0	0	0	0	0	59	19	0	17	48	0	0	189
5:00 PM	11	0	22	0	0	0	0	0	0	51	9	0	19	43	0	0	155
5:15 PM	7	0	17	0	0	0	0	0	0	45	12	0	22	46	0	0	149
5:30 PM	20	0	24	0	0	0	0	0	0	46	13	0	17	42	1	0	163
5:45 PM	15	0	21	0	0	1	0	0	0	47	14	0	14	50	0	0	162
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	112	0	161	0	0	2	0	0	0	408	117	0	143	348	3	0	1294
APPROACH %'s :	41.03%	0.00%	58.97%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	77.71%	22.29%	0.00%	28.95%	70.45%	0.61%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	62	0	86	0	0	1	0	0	0	220	63	0	74	162	2	0	670
PEAK HR FACTOR :	0.775	0.000	0.827	0.000	0.000	0.250	0.000	0.000	0.000	0.932	0.716	0.000	0.804	0.844	0.500	0.000	0.886
	0.804				0.250				0.907				0.915				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Cypress Ave & Walnut Ave
City: Winton
Control: 0

Project ID: 18-07324-016
Date: 9/25/2018

Bikes

NS/EW Streets:	Cypress Ave				Cypress Ave				Walnut Ave				Walnut Ave				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	4
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%									0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250
													0.250				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Cypress Ave & Walnut Ave **Project ID:** 18-07324-016
City: Winton **Date:** 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Cypress Ave		Cypress Ave		Walnut Ave		Walnut Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	1	1
7:30 AM	2	1	0	0	0	0	0	0	3
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	1	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	2	2	0	0	1	0	0	1	6
APPROACH %'s :	50.00%	50.00%			100.00%	0.00%	0.00%	100.00%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	2	2	0	0	1	0	0	1	6
PEAK HR FACTOR :	0.250	0.500			0.250			0.250	0.500
	0.333				0.250		0.250		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	1	0	0	0	0	0	1	0	2
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	2	0	1	1	0	2	1	0	7
5:00 PM	0	0	0	0	1	1	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	1	0	0	0	1
5:45 PM	1	1	0	0	0	0	0	0	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	4	1	1	1	2	3	2	0	14
APPROACH %'s :	80.00%	20.00%	50.00%	50.00%	40.00%	60.00%	100.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM								TOTAL
PEAK HR VOL :	3	0	1	1	1	3	2	0	11
PEAK HR FACTOR :	0.375		0.250	0.250	0.250	0.375	0.500		0.393
	0.375		0.250		0.500		0.500		

Prepared by National Data & Surveying Services

California St & Walnut Ave

Peak Hour Turning Movement Count

ID: 18-07324-017
City: Winton

Day: Tuesday
Date: 09/25/2018

PEAK HOURS		COUNT PERIODS
07:15 AM - 08:15 AM	AM	07:00 AM - 09:00 AM
NONE	NOON	NONE
04:45 PM - 05:45 PM	PM	04:00 PM - 06:00 PM

California St — SOUTHBOUND

	Right	Thru	Left	U-Turn	Departing
AM	40	81	8	0	270
NOON	0	0	0	0	0
PM	25	72	8	0	80
	0	0	0	0	

Walnut Ave — EASTBOUND

	AM	NOON	PM	
Departing	109	0	142	
U-Turn	0	0	0	0
Left	100	0	23	0
Thru	47	0	60	0
Right	21	0	29	0

Walnut Ave — WESTBOUND

		PM	NOON	AM
Right	0	3	0	35
Thru	0	65	0	40
Left	0	43	0	39
U-Turn	0	0	0	0
Departing		148	0	82

CONTROL

0

	AM	NOON	PM
TEV	602	0	514
PHF	0.73		0.92

California St — NORTHBOUND

	Departing	U-Turn	Left	Thru	Right
		0	0	0	0
PM	144	0	52	54	80
NOON	0	0	0	0	0
AM	141	0	29	135	27

Total Vehicles (AM)

Approach	Right	Thru	Left
Southbound	40	81	8
Eastbound	21	47	100
Westbound	35	40	39
Northbound	27	135	29

Total Vehicles (Noon)

Approach	Right	Thru	Left
Southbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A

Total Vehicles (PM)

Approach	Right	Thru	Left
Southbound	25	72	8
Eastbound	29	60	23
Westbound	3	65	43
Northbound	80	54	52

Bikes (AM)

Approach	Right	Thru	Left
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	0	1

Bikes (NOON)

Approach	Right	Thru	Left
Southbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A

Bikes (PM)

Approach	Right	Thru	Left
Southbound	2	0	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0

Pedestrians (Crosswalks)

Crosswalk	Direction	AM	NOON	PM
North	Eastbound	7	0	0
North	Westbound	1	0	1
West	Southbound	9	0	1
West	Northbound	3	0	2
East	Southbound	9	0	1
East	Northbound	2	0	2
South	Eastbound	28	0	1
South	Westbound	6	0	2
NW diagonal		0	0	0
NE diagonal		0	0	0
SW diagonal		0	0	0
SE diagonal		0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: California St & Walnut Ave
City: Winton
Control:

Project ID: 18-07324-017
Date: 9/25/2018

Total

NS/EW Streets:	California St				California St				Walnut Ave				Walnut Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	3	4	4	0	0	2	0	0	5	9	4	0	7	5	1	0	44
7:15 AM	3	25	9	0	3	19	10	0	28	14	6	0	11	8	8	0	144
7:30 AM	1	57	5	0	2	20	11	0	47	12	9	0	14	16	12	0	206
7:45 AM	15	40	7	0	2	27	17	0	22	6	2	0	8	9	13	0	168
8:00 AM	10	13	6	0	1	15	2	0	3	15	4	0	6	7	2	0	84
8:15 AM	4	9	7	0	0	7	2	0	5	7	2	0	6	5	1	0	55
8:30 AM	3	4	2	0	0	8	2	0	2	18	3	0	9	5	0	0	56
8:45 AM	3	6	6	0	0	0	1	0	1	13	5	0	7	8	0	0	50
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	42	158	46	0	8	98	45	0	113	94	35	0	68	63	37	0	807
APPROACH %'s :	17.07%	64.23%	18.70%	0.00%	5.30%	64.90%	29.80%	0.00%	46.69%	38.84%	14.46%	0.00%	40.48%	37.50%	22.02%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	29	135	27	0	8	81	40	0	100	47	21	0	39	40	35	0	602
PEAK HR FACTOR :	0.483	0.592	0.750	0.000	0.667	0.750	0.588	0.000	0.532	0.783	0.583	0.000	0.696	0.625	0.673	0.000	0.731
	0.758				0.701				0.618				0.679				

NS/EW Streets:	California St				California St				Walnut Ave				Walnut Ave				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	11	13	16	0	2	8	1	0	0	10	1	0	9	13	5	0	89
4:15 PM	7	13	16	0	6	17	5	0	3	12	4	0	7	13	0	0	103
4:30 PM	13	19	12	0	1	17	8	0	5	15	8	0	14	8	0	0	120
4:45 PM	17	11	28	0	2	17	5	0	11	16	6	0	11	15	0	0	139
5:00 PM	10	9	22	0	2	13	5	0	4	13	12	0	16	22	2	0	130
5:15 PM	9	17	16	0	1	24	6	0	4	15	4	0	4	18	1	0	119
5:30 PM	16	17	14	0	3	18	9	0	4	16	7	0	12	10	0	0	126
5:45 PM	12	9	8	0	0	11	16	0	7	17	10	0	2	16	3	0	111
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	95	108	132	0	17	125	55	0	38	114	52	0	75	115	11	0	937
APPROACH %'s :	28.36%	32.24%	39.40%	0.00%	8.63%	63.45%	27.92%	0.00%	18.63%	55.88%	25.49%	0.00%	37.31%	57.21%	5.47%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	52	54	80	0	8	72	25	0	23	60	29	0	43	65	3	0	514
PEAK HR FACTOR :	0.765	0.794	0.714	0.000	0.667	0.750	0.694	0.000	0.523	0.938	0.604	0.000	0.672	0.739	0.375	0.000	0.924
	0.830				0.847				0.848				0.694				

National Data & Surveying Services

Intersection Turning Movement Count

Location: California St & Walnut Ave
City: Winton
Control: 0

Project ID: 18-07324-017
Date: 9/25/2018

Bikes

NS/EW Streets:	California St				California St				Walnut Ave				Walnut Ave				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%									0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
	0.250																

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	4
APPROACH %'s :					25.00%	0.00%	75.00%	0.00%									
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
					0.250												

National Data & Surveying Services

Intersection Turning Movement Count

Location: California St & Walnut Ave **Project ID:** 18-07324-017
City: Winton **Date:** 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	California St		California St		Walnut Ave		Walnut Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	1	1	0	0	0	1	0	1	4
7:15 AM	0	0	6	0	0	0	2	0	8
7:30 AM	6	1	16	3	0	8	0	9	43
7:45 AM	1	0	4	4	1	1	1	0	12
8:00 AM	0	0	2	2	1	0	0	0	5
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	1	0	0	0	0	1	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	9	2	28	9	2	11	3	10	74
APPROACH %'s :	81.82%	18.18%	75.68%	24.32%	15.38%	84.62%	23.08%	76.92%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	7	1	28	9	2	9	3	9	68
PEAK HR FACTOR :	0.292	0.250	0.438	0.563	0.500	0.281	0.375	0.250	0.395
	0.286		0.487		0.344		0.333		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	2	2	0	2	1	0	0	7
4:30 PM	0	0	0	0	0	0	1	1	2
4:45 PM	0	1	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	1	0	0	1
5:15 PM	0	0	0	0	2	0	1	1	4
5:30 PM	0	0	1	2	0	0	1	0	4
5:45 PM	0	0	0	6	0	0	0	0	6
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	3	3	8	4	2	3	2	25
APPROACH %'s :	0.00%	100.00%	27.27%	72.73%	66.67%	33.33%	60.00%	40.00%	
PEAK HR :	04:45 PM - 05:45 PM								TOTAL
PEAK HR VOL :	0	1	1	2	2	1	2	1	10
PEAK HR FACTOR :		0.250	0.250	0.250	0.250	0.250	0.500	0.250	0.625
	0.250		0.250		0.375		0.375		

Prepared by National Data & Surveying Services

Schaffer Rd & Walnut Ave

Peak Hour Turning Movement Count

ID: 18-07324-018
City: Winton

Day: Tuesday
Date: 09/25/2018

PEAK HOURS		COUNT PERIODS
AM	07:15 AM - 08:15 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:30 PM - 05:30 PM	04:00 PM - 06:00 PM

Schaffer Rd — SOUTHBOUND

	Right	Thru	Left	U-Turn	Total (out)
AM	15	149	0	0	120
NOON	0	0	0	0	0
PM	51	217	0	0	135
(red)	0	0	0	0	

Walnut Ave — EASTBOUND

	AM	NOON	PM	(red)
Total (out)	39	0	87	
U-Turn	0	0	0	0
Left	18	0	19	0
Thru	2	0	0	0
Right	84	0	28	0

Walnut Ave — WESTBOUND

	PM	NOON	AM	(red)
Right	0	0	1	0
Thru	2	0	2	0
Left	1	0	4	0
U-Turn	0	0	0	0
Total (out)	1	0	5	

CONTROL

CONTROL			
	0		
TEV	401 AM	0 NOON	469 PM
PHF	0.78		0.74

Schaffer Rd — NORTHBOUND

	Total (out)	U-Turn	Left	Thru	Right
(red)		0	0	0	0
PM	246	0	34	116	1
NOON	0	0	0	0	0
AM	237	0	22	101	3

Total Vehicles (AM)

Approach	Left	Thru	Right
Southbound	0	149	15
Eastbound	18	2	84
Westbound	4	2	1
Northbound	22	101	3

Total Vehicles (Noon)

Approach	Left	Thru	Right
Southbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A

Total Vehicles (PM)

Approach	Left	Thru	Right
Southbound	0	217	51
Eastbound	19	0	28
Westbound	1	2	0
Northbound	34	116	1

Bikes (AM)

Approach	Left	Thru	Right
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0

Bikes (NOON)

Approach	Left	Thru	Right
Southbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A

Bikes (PM)

Approach	Left	Thru	Right
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0

Pedestrians (Crosswalks)

Crosswalk	AM	NOON	PM
North leg (eastbound)	0	0	0
North leg (westbound)	0	0	0
South leg (eastbound)	0	0	0
South leg (westbound)	0	0	0
West leg (southbound)	0	0	0
West leg (northbound)	0	0	0
East leg (southbound)	0	0	0
East leg (northbound)	0	0	0
NW corner (diagonal)	0	0	0
NE corner (diagonal)	0	0	0
SW corner (diagonal)	0	0	0
SE corner (diagonal)	0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Schaffer Rd & Walnut Ave
City: Winton
Control:

Project ID: 18-07324-018
Date: 9/25/2018

Total

NS/EW Streets:	Schaffer Rd				Schaffer Rd				Walnut Ave				Walnut Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	20	1	0	0	31	1	0	1	1	4	0	1	0	0	0	60
7:15 AM	5	19	1	0	0	41	5	0	1	1	15	0	3	0	1	0	92
7:30 AM	9	23	2	0	0	47	6	0	8	0	33	0	0	1	0	0	129
7:45 AM	2	18	0	0	0	34	3	0	4	1	29	0	1	1	0	0	93
8:00 AM	6	41	0	0	0	27	1	0	5	0	7	0	0	0	0	0	87
8:15 AM	1	22	2	0	0	25	1	0	1	1	5	0	1	0	0	0	59
8:30 AM	4	14	0	0	0	22	1	0	2	0	4	0	0	0	1	0	48
8:45 AM	4	16	3	0	0	21	0	0	1	3	5	0	1	0	0	0	54
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	31	173	9	0	0	248	18	0	23	7	102	0	7	2	2	0	622
APPROACH %'s :	14.55%	81.22%	4.23%	0.00%	0.00%	93.23%	6.77%	0.00%	17.42%	5.30%	77.27%	0.00%	63.64%	18.18%	18.18%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	22	101	3	0	0	149	15	0	18	2	84	0	4	2	1	0	401
PEAK HR FACTOR :	0.611	0.616	0.375	0.000	0.000	0.793	0.625	0.000	0.563	0.500	0.636	0.000	0.333	0.500	0.250	0.000	0.777
	0.670				0.774				0.634				0.438				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	4	23	1	0	0	72	9	0	8	0	2	0	0	0	0	0	119
4:15 PM	8	29	0	0	1	65	14	0	5	0	7	0	2	0	1	0	132
4:30 PM	10	25	1	0	0	48	14	0	0	0	9	0	1	0	0	0	108
4:45 PM	6	24	0	0	0	44	10	0	5	0	6	0	0	2	0	0	97
5:00 PM	9	34	0	0	0	40	11	0	4	0	7	0	0	0	0	0	105
5:15 PM	9	33	0	0	0	85	16	0	10	0	6	0	0	0	0	0	159
5:30 PM	11	29	0	0	0	46	9	0	3	1	8	0	0	0	0	0	107
5:45 PM	8	24	1	0	0	27	5	0	9	0	2	0	0	1	0	0	77
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	65	221	3	0	1	427	88	0	44	1	47	0	3	3	1	0	904
APPROACH %'s :	22.49%	76.47%	1.04%	0.00%	0.19%	82.75%	17.05%	0.00%	47.83%	1.09%	51.09%	0.00%	42.86%	42.86%	14.29%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	34	116	1	0	0	217	51	0	19	0	28	0	1	2	0	0	469
PEAK HR FACTOR :	0.850	0.853	0.250	0.000	0.000	0.638	0.797	0.000	0.475	0.000	0.778	0.000	0.250	0.250	0.000	0.000	0.737
	0.878				0.663				0.734				0.375				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Schaffer Rd & Walnut Ave
City: Winton
Control: 0

Project ID: 18-07324-018
Date: 9/25/2018

Bikes

NS/EW Streets:	Schaffer Rd				Schaffer Rd				Walnut Ave				Walnut Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
APPROACH %'s :					0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Schaffer Rd & Walnut Ave **Project ID:** 18-07324-018
City: Winton **Date:** 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Schaffer Rd		Schaffer Rd		Walnut Ave		Walnut Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	1	1
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	1	1
APPROACH %'s :							0.00%	100.00%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	2	0	2
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	2	0	2
APPROACH %'s :							100.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

Prepared by National Data & Surveying Services

Cypress Ave & Almond Ave

Peak Hour Turning Movement Count

ID: 18-07324-019
City: Winton

Day: Tuesday
Date: 09/25/2018

PEAK HOURS	
AM	07:00 AM - 08:00 AM
NOON	NONE
PM	04:15 PM - 05:15 PM

COUNT PERIODS	
AM	07:00 AM - 09:00 AM
NOON	NONE
PM	04:00 PM - 06:00 PM

Cypress Ave — SOUTHBOUND

	Right	Thru	Left	U-Turn	Departing
AM	41	169	44	0	170
NOON	0	0	0	0	0
PM	17	67	22	0	144
(red)	0	0	0	0	

Almond Ave — EASTBOUND

	AM	NOON	PM	(red)
Departing	137	0	80	
U-Turn	0	0	0	0
Left	19	0	53	0
Thru	33	0	72	0
Right	54	0	41	0

Almond Ave — WESTBOUND

	(red)	PM	NOON	AM
Right	0	13	0	27
Thru	0	29	0	46
Left	0	35	0	82
U-Turn	0	0	0	0
Departing		124	0	173

Cypress Ave — NORTHBOUND

	Departing	U-Turn	Left	Thru	Right
(red)		0	0	0	0
PM	143	0	34	78	30
NOON	0	0	0	0	0
AM	305	0	50	124	96

CONTROL			
	0		
TEV	785 AM	0 NOON	491 PM
PHF	0.69		0.91

Total Vehicles (AM)

SB: 41, 169, 44 — EB: 19, 33, 54 — WB: 27, 46, 82 — NB: 50, 124, 96

Total Vehicles (Noon)

SB: N/A, N/A, N/A — EB: N/A, N/A, N/A — WB: N/A, N/A, N/A — NB: N/A, N/A, N/A

Total Vehicles (PM)

SB: 17, 67, 22 — EB: 53, 72, 41 — WB: 13, 29, 35 — NB: 34, 78, 30

Bikes (AM)

SB: 0, 1, 0 — EB: 0, 0, 0 — WB: 0, 0, 1 — NB: 0, 0, 0

Bikes (NOON)

SB: N/A, N/A, N/A — EB: N/A, N/A, N/A — WB: N/A, N/A, N/A — NB: N/A, N/A, N/A

Bikes (PM)

SB: 1, 0, 0 — EB: 0, 0, 0 — WB: 0, 0, 0 — NB: 0, 0, 1

Pedestrians (Crosswalks)

Crosswalk		PM	NOON	AM
North	Eastbound (→)	0	0	2
North	Westbound (←)	3	0	3
West	Southbound (↓)	1	0	2
West	Northbound (↑)	1	0	0
East	Southbound (↓)	4	0	42
East	Northbound (↑)	10	0	0
South	Eastbound (→)	0	0	1
South	Westbound (←)	2	0	0
NW diagonal		0	0	0
NE diagonal		0	0	0
SW diagonal		0	0	0
SE diagonal		0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Cypress Ave & Almond Ave
City: Winton
Control:

Project ID: 18-07324-019
Date: 9/25/2018

Total

NS/EW Streets:	Cypress Ave				Cypress Ave				Almond Ave				Almond Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	7	12	7	0	3	17	10	0	2	8	3	0	5	3	2	0	79
7:15 AM	14	29	24	0	13	43	4	0	2	7	17	0	17	12	5	0	187
7:30 AM	13	34	40	0	20	69	20	0	6	11	18	0	28	16	8	0	283
7:45 AM	16	49	25	0	8	40	7	0	9	7	16	0	32	15	12	0	236
8:00 AM	5	13	3	0	1	16	6	0	5	11	3	0	2	6	5	0	76
8:15 AM	5	5	3	0	5	2	3	0	4	12	2	0	2	4	3	0	50
8:30 AM	3	8	3	0	4	9	3	0	1	10	1	0	3	5	1	0	51
8:45 AM	7	3	2	0	2	12	1	0	1	6	4	0	2	7	2	0	49
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	70	153	107	0	56	208	54	0	30	72	64	0	91	68	38	0	1011
APPROACH %'s :	21.21%	46.36%	32.42%	0.00%	17.61%	65.41%	16.98%	0.00%	18.07%	43.37%	38.55%	0.00%	46.19%	34.52%	19.29%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	50	124	96	0	44	169	41	0	19	33	54	0	82	46	27	0	785
PEAK HR FACTOR :	0.781	0.633	0.600	0.000	0.550	0.612	0.513	0.000	0.528	0.750	0.750	0.000	0.641	0.719	0.563	0.000	0.693
	0.750				0.583				0.757				0.657				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	4	11	5	0	5	19	4	0	10	23	5	0	6	5	2	0	99
4:15 PM	11	13	4	0	4	20	5	0	8	15	8	0	12	10	3	0	113
4:30 PM	6	17	5	0	6	17	5	0	19	20	12	0	6	6	1	0	120
4:45 PM	7	26	10	0	9	12	1	0	14	26	13	0	12	1	4	0	135
5:00 PM	10	22	11	0	3	18	6	0	12	11	8	0	5	12	5	0	123
5:15 PM	5	16	1	0	5	29	6	0	12	12	7	0	4	7	5	0	109
5:30 PM	3	37	13	0	4	17	3	0	5	7	8	0	5	9	4	0	115
5:45 PM	8	22	8	0	8	25	4	0	8	12	7	0	10	5	4	0	121
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	54	164	57	0	44	157	34	0	88	126	68	0	60	55	28	0	935
APPROACH %'s :	19.64%	59.64%	20.73%	0.00%	18.72%	66.81%	14.47%	0.00%	31.21%	44.68%	24.11%	0.00%	41.96%	38.46%	19.58%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	34	78	30	0	22	67	17	0	53	72	41	0	35	29	13	0	491
PEAK HR FACTOR :	0.773	0.750	0.682	0.000	0.611	0.838	0.708	0.000	0.697	0.692	0.788	0.000	0.729	0.604	0.650	0.000	0.909
	0.826				0.914				0.783				0.770				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Cypress Ave & Almond Ave
City: Winton
Control: 0

Project ID: 18-07324-019
Date: 9/25/2018

Bikes

NS/EW Streets:	Cypress Ave				Cypress Ave				Almond Ave				Almond Ave				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
7:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	2
APPROACH %'s :					0.00%	100.00%	0.00%	0.00%					100.00%	0.00%	0.00%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	2
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.500
						0.250								0.250			

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	1	0	0	2	1	0	0	0	0	0	0	0	0	0	5
APPROACH %'s :	0.00%	50.00%	50.00%	0.00%	0.00%	66.67%	33.33%	0.00%									
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2
PEAK HR FACTOR :	0.00	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
		0.250				0.250											

National Data & Surveying Services

Intersection Turning Movement Count

Location: Cypress Ave & Almond Ave
City: Winton
Project ID: 18-07324-019
Date: 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Cypress Ave		Cypress Ave		Almond Ave		Almond Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	10	0	0	10
7:15 AM	0	0	0	0	0	10	0	0	10
7:30 AM	2	1	1	0	0	16	0	2	22
7:45 AM	0	2	0	0	0	6	0	0	8
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	1	1	0	0	1	1	4
8:30 AM	0	0	0	0	0	1	0	0	1
8:45 AM	0	0	0	0	1	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	2	3	2	1	1	43	1	3	56
APPROACH %'s :	40.00%	60.00%	66.67%	33.33%	2.27%	97.73%	25.00%	75.00%	
PEAK HR :	07:00 AM - 08:00 AM								TOTAL
PEAK HR VOL :	2	3	1	0	0	42	0	2	50
PEAK HR FACTOR :	0.250	0.375	0.250			0.656		0.250	0.568
	0.417		0.250		0.656		0.250		

	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
PM	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	2	2	0	0	4
4:30 PM	0	0	0	0	1	0	0	0	1
4:45 PM	0	2	0	2	4	2	1	0	11
5:00 PM	0	1	0	0	3	0	0	1	5
5:15 PM	0	0	0	0	5	0	0	0	5
5:30 PM	0	0	0	0	0	0	0	1	1
5:45 PM	0	0	0	0	1	0	1	1	3
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	3	0	2	16	4	2	3	30
APPROACH %'s :	0.00%	100.00%	0.00%	100.00%	80.00%	20.00%	40.00%	60.00%	
PEAK HR :	04:15 PM - 05:15 PM								TOTAL
PEAK HR VOL :	0	3	0	2	10	4	1	1	21
PEAK HR FACTOR :		0.375		0.250	0.625	0.500	0.250	0.250	0.477
	0.375		0.250		0.583		0.500		

Prepared by National Data & Surveying Services

Winton Way & Fruitland Ave

Peak Hour Turning Movement Count

ID: 18-07324-020
City: Atwater

Day: Tuesday
Date: 09/25/2018

	PEAK HOURS	COUNT PERIODS
AM	07:00 AM - 08:00 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:45 PM - 05:45 PM	04:00 PM - 06:00 PM

Winton Way — SOUTHBOUND

	Right	Through	Left	U-Turn	Departing
AM	353	280	0	0	518
NOON	0	0	0	0	0
PM	155	448	0	0	522
(red)	0	0	0	0	

Fruitland Ave — EASTBOUND

	AM	NOON	PM	(red)
Departing	780	0	446	
U-Turn	0	0	0	0
Left	251	0	101	0
Through	0	0	0	0
Right	408	0	283	0

Fruitland Ave — WESTBOUND

	(red)	PM	NOON	AM
Right	0	0	0	0
Through	0	0	0	0
Left	0	0	0	0
U-Turn	0	0	0	0
Departing		0	0	0

Winton Way — NORTHBOUND

	Departing	U-Turn	Left	Through	Right
(red)		0	0	0	0
PM	731	0	291	421	0
NOON	0	0	0	0	0
AM	688	0	427	267	0

CONTROL

0

	AM	NOON	PM
TEV	1986	0	1699
PHF	0.79		0.98

Total Vehicles (AM)

Approach	Left	Through	Right	U-Turn
Southbound	0	280	353	0
Eastbound	251	0	408	
Westbound	0	0	0	0
Northbound	427	267	0	

Total Vehicles (Noon)

All movements: N/A

Total Vehicles (PM)

Approach	Left	Through	Right	U-Turn
Southbound	0	448	155	
Eastbound	101	0	283	
Westbound	0	0	0	0
Northbound	291	421	0	

Bikes (AM)

Approach	Left	Through	Right
Southbound	1	0	0
Eastbound	0	0	2
Westbound	0	0	0
Northbound	11	0	0

Bikes (NOON)

All movements: N/A

Bikes (PM)

Approach	Left	Through	Right
Southbound	0	0	0
Eastbound	0	0	1
Westbound	0	0	0
Northbound	3	1	0

Pedestrians (Crosswalks)

Crosswalk	AM	NOON	PM
North (→)	6	0	2
North (←)	86	0	5
West (↓)	6	0	3
West (↑)	39	0	1
East (↓)	0	0	0
East (↑)	0	0	0
South (→)	1	0	0
South (←)	0	0	0
NW corner	0	0	0
NE corner	0	0	0
SW corner	0	0	0
SE corner	0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Fruitland Ave
City: Atwater
Control:

Project ID: 18-07324-020
Date: 9/25/2018

Total

NS/EW Streets:	Winton Way				Winton Way				Fruitland Ave				Fruitland Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	60	45	0	0	0	54	48	0	43	0	76	0	0	0	0	0	326
7:15 AM	86	76	0	0	0	73	72	0	68	0	96	0	0	0	0	0	471
7:30 AM	135	74	0	0	0	62	109	0	72	0	109	0	0	0	0	0	561
7:45 AM	146	72	0	0	0	91	124	0	68	0	127	0	0	0	0	0	628
8:00 AM	37	48	0	0	0	87	14	0	41	0	67	0	0	0	0	0	294
8:15 AM	29	48	0	0	0	44	15	0	16	0	35	0	0	0	0	0	187
8:30 AM	36	51	0	0	0	47	24	0	16	0	28	0	0	0	0	0	202
8:45 AM	41	54	0	0	0	68	28	0	20	0	42	0	0	0	0	0	253
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	570	468	0	0	0	526	434	0	344	0	580	0	0	0	0	0	2922
APPROACH %'s :	54.91%	45.09%	0.00%	0.00%	0.00%	54.79%	45.21%	0.00%	37.23%	0.00%	62.77%	0.00%					
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	427	267	0	0	0	280	353	0	251	0	408	0	0	0	0	0	1986
PEAK HR FACTOR :	0.731	0.878	0.000	0.000	0.000	0.769	0.712	0.000	0.872	0.000	0.803	0.000	0.000	0.000	0.000	0.000	0.791
	0.796				0.736				0.845								

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	56	109	0	0	0	106	25	0	24	0	64	0	0	0	0	0	384
4:15 PM	41	91	0	0	0	119	16	0	21	0	52	0	0	0	0	0	340
4:30 PM	65	123	0	0	0	117	18	0	26	0	60	0	0	0	0	0	409
4:45 PM	80	119	0	0	0	107	32	0	20	0	69	0	0	0	0	0	427
5:00 PM	64	102	0	0	0	105	50	0	30	0	67	0	0	0	0	0	418
5:15 PM	73	87	0	0	0	124	40	0	28	0	67	0	0	0	0	0	419
5:30 PM	74	113	0	0	0	112	33	0	23	0	80	0	0	0	0	0	435
5:45 PM	57	108	0	0	0	91	24	0	24	0	56	0	0	0	0	0	360
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	510	852	0	0	0	881	238	0	196	0	515	0	0	0	0	0	3192
APPROACH %'s :	37.44%	62.56%	0.00%	0.00%	0.00%	78.73%	21.27%	0.00%	27.57%	0.00%	72.43%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	291	421	0	0	0	448	155	0	101	0	283	0	0	0	0	0	1699
PEAK HR FACTOR :	0.909	0.884	0.000	0.000	0.000	0.903	0.775	0.000	0.842	0.000	0.884	0.000	0.000	0.000	0.000	0.000	0.976
	0.894				0.919				0.932								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Fruitland Ave
City: Atwater
Control: 0

Project ID: 18-07324-020
Date: 9/25/2018

Bikes

NS/EW Streets:	Winton Way				Winton Way				Fruitland Ave				Fruitland Ave				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3
7:15 AM	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
7:30 AM	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5
7:45 AM	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3
8:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
8:15 AM	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
8:30 AM	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2
8:45 AM	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	14	0	0	0	3	0	1	0	1	0	3	0	0	0	0	0	22
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%	75.00%	0.00%	25.00%	0.00%	25.00%	0.00%	75.00%	0.00%					
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	11	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0	14
PEAK HR FACTOR :	0.688	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.700
	0.688				0.250				0.500								

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
5:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	3	1	0	0	0	0	1	0	0	0	3	0	0	0	0	0	8
APPROACH %'s :	75.00%	25.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	3	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	5
PEAK HR FACTOR :	0.75	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.625
	0.500								0.250								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Fruitland Ave
City: Atwater
Project ID: 18-07324-020
Date: 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Winton Way		Winton Way		Fruitland Ave		Fruitland Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	6	14	1	0	0	0	3	1	25
7:15 AM	0	18	0	0	0	0	11	4	33
7:30 AM	0	32	0	0	0	0	20	1	53
7:45 AM	0	22	0	0	0	0	5	0	27
8:00 AM	0	1	0	0	0	0	0	0	1
8:15 AM	0	2	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	1	0	1
8:45 AM	1	1	0	0	0	0	2	0	4
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	7	90	1	0	0	0	42	6	146
APPROACH %'s :	7.22%	92.78%	100.00%	0.00%			87.50%	12.50%	
PEAK HR :	07:00 AM - 08:00 AM								TOTAL
PEAK HR VOL :	6	86	1	0	0	0	39	6	138
PEAK HR FACTOR :	0.250	0.672	0.250				0.488	0.375	0.651
	0.719		0.250				0.536		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	1	2	0	0	0	0	3	0	6
4:15 PM	8	0	0	0	0	0	0	0	8
4:30 PM	0	3	0	0	0	0	0	0	3
4:45 PM	0	1	0	0	0	0	0	1	2
5:00 PM	0	1	0	0	0	0	1	0	2
5:15 PM	1	3	0	0	0	0	0	0	4
5:30 PM	1	0	0	0	0	0	0	2	3
5:45 PM	6	0	0	0	0	0	1	0	7
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	17	10	0	0	0	0	5	3	35
APPROACH %'s :	62.96%	37.04%					62.50%	37.50%	
PEAK HR :	04:45 PM - 05:45 PM								TOTAL
PEAK HR VOL :	2	5	0	0	0	0	1	3	11
PEAK HR FACTOR :	0.500	0.417					0.250	0.375	0.688
	0.438						0.500		

Prepared by National Data & Surveying Services

Winton Way & Bellevue Rd

Peak Hour Turning Movement Count

ID: 18-07324-021
City: Atwater

Day: Tuesday
Date: 09/25/2018

PEAK HOURS		COUNT PERIODS
07:00 AM - 08:00 AM	AM	07:00 AM - 09:00 AM
NONE	NOON	NONE
04:45 PM - 05:45 PM	PM	04:00 PM - 06:00 PM

Winton Way — SOUTHBOUND

	(right)	(through)	(left)	(U-turn)	Total
AM	17	372	235	1	617
NOON	0	0	0	0	0
PM	10	393	240	5	657
	0	0	0	0	

Bellevue Rd — EASTBOUND

	AM	NOON	PM	
(total)	182	0	117	
(U-turn)	0	0	0	0
(left)	42	0	44	0
(through)	137	0	43	0
(right)	85	0	20	0

Bellevue Rd — WESTBOUND

		PM	NOON	AM
(right)	0	160	0	202
(through)	0	75	0	104
(left)	0	182	0	105
(U-turn)	0	0	0	0
(total)		460	0	458

Winton Way — NORTHBOUND

	Total	(U-turn)	(left)	(through)	(right)
		0	0	0	0
PM	595	0	32	448	177
NOON	0	0	0	0	0
AM	562	0	61	372	86

CONTROL

0

	AM	NOON	PM
TEV	1819	0	1829
PHF	0.87		0.95

Total Vehicles (AM)

SB: 17, 372, 235 — EB: 42, 137, 85 — WB: 202, 104, 105 — NB: 61, 372, 86

Total Vehicles (Noon)

SB: N/A, N/A, N/A — EB: N/A, N/A, N/A — WB: N/A, N/A, N/A — NB: N/A, N/A, N/A

Total Vehicles (PM)

SB: 10, 393, 240 — EB: 44, 43, 20 — WB: 160, 75, 182 — NB: 32, 448, 177

Bikes (AM)

SB: 0, 2, 0 — EB: 0, 0, 0 — WB: 0, 0, 0 — NB: 1, 3, 0

Bikes (NOON)

SB: N/A, N/A, N/A — EB: N/A, N/A, N/A — WB: N/A, N/A, N/A — NB: N/A, N/A, N/A

Bikes (PM)

SB: 0, 1, 0 — EB: 0, 1, 0 — WB: 0, 1, 0 — NB: 2, 1, 0

Pedestrians (Crosswalks)

	AM	NOON	PM
North crosswalk (west half)	4	0	2
North crosswalk (east half)	5	0	3
West crosswalk (north half)	3	0	7
West crosswalk (south half)	27	0	0
East crosswalk (north half)	3	0	6
East crosswalk (south half)	17	0	3
South crosswalk (west half)	0	0	4
South crosswalk (east half)	0	0	1
Diagonal NW	0	0	0
Diagonal NE	0	0	0
Diagonal SW	0	0	0
Diagonal SE	0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Bellevue Rd
City: Atwater
Control:

Project ID: 18-07324-021
Date: 9/25/2018

Total

NS/EW Streets:	Winton Way				Winton Way				Bellevue Rd				Bellevue Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	7	64	15	0	47	64	1	0	4	31	11	0	27	17	33	0	321
7:15 AM	12	83	27	0	67	86	1	1	6	41	21	0	29	35	60	0	469
7:30 AM	24	109	20	0	55	98	7	0	14	31	18	0	29	34	66	0	505
7:45 AM	18	116	24	0	66	124	8	0	18	34	35	0	20	18	43	0	524
8:00 AM	5	45	26	0	35	94	2	0	8	14	19	0	18	6	24	0	296
8:15 AM	6	48	18	0	24	53	2	0	5	6	5	0	22	10	16	0	215
8:30 AM	4	57	34	0	22	35	1	2	4	5	5	0	20	6	25	0	220
8:45 AM	2	53	24	0	29	62	3	0	6	10	4	0	25	9	30	0	257
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	78	575	188	0	345	616	25	3	65	172	118	0	190	135	297	0	2807
APPROACH %'s :	9.27%	68.37%	22.35%	0.00%	34.88%	62.29%	2.53%	0.30%	18.31%	48.45%	33.24%	0.00%	30.55%	21.70%	47.75%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	61	372	86	0	235	372	17	1	42	137	85	0	105	104	202	0	1819
PEAK HR FACTOR :	0.635	0.802	0.796	0.000	0.877	0.750	0.531	0.250	0.583	0.835	0.607	0.000	0.905	0.743	0.765	0.000	0.868
	0.821				0.789				0.759				0.797				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	8	105	41	0	49	96	3	1	7	10	1	0	50	12	39	0	422
4:15 PM	7	91	47	0	47	103	10	2	6	10	6	0	52	12	35	0	428
4:30 PM	13	133	52	0	50	88	3	1	8	16	9	0	48	22	32	0	475
4:45 PM	5	133	46	0	60	100	2	0	12	11	7	0	42	19	46	0	483
5:00 PM	11	109	44	0	60	85	4	1	9	10	4	0	50	18	33	0	438
5:15 PM	7	100	35	0	60	102	2	2	11	10	6	0	39	17	36	0	427
5:30 PM	9	106	52	0	60	106	2	2	12	12	3	0	51	21	45	0	481
5:45 PM	2	105	37	0	47	77	2	1	14	18	9	0	38	20	47	0	417
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	62	882	354	0	433	757	28	10	79	97	45	0	370	141	313	0	3571
APPROACH %'s :	4.78%	67.95%	27.27%	0.00%	35.26%	61.64%	2.28%	0.81%	35.75%	43.89%	20.36%	0.00%	44.90%	17.11%	37.99%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	32	448	177	0	240	393	10	5	44	43	20	0	182	75	160	0	1829
PEAK HR FACTOR :	0.727	0.842	0.851	0.000	1.000	0.927	0.625	0.625	0.917	0.896	0.714	0.000	0.892	0.893	0.870	0.000	0.947
	0.893				0.953				0.892				0.891				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Bellevue Rd
City: Atwater
Control: 0

Project ID: 18-07324-021
Date: 9/25/2018

Bikes

NS/EW Streets:	Winton Way				Winton Way				Bellevue Rd				Bellevue Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	3
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	3	0	0	1	3	0	0	0	0	0	0	0	0	1	0	9
APPROACH %'s :	25.00%	75.00%	0.00%	0.00%	25.00%	75.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	1	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6
PEAK HR FACTOR :	0.250	0.750	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
	0.500				0.500												
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
4:45 PM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	4
5:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	3
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	2	0	0	0	5	0	0	1	1	0	0	2	1	0	0	14
APPROACH %'s :	50.00%	50.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	50.00%	50.00%	0.00%	0.00%	66.67%	33.33%	0.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	2	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	6
PEAK HR FACTOR :	0.25	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.375
	0.375				0.250				0.250				0.250				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Bellevue Rd **Project ID:** 18-07324-021
City: Atwater **Date:** 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Winton Way		Winton Way		Bellevue Rd		Bellevue Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	1	0	0	0	3	0	2	2	8
7:15 AM	1	4	0	0	5	1	6	0	17
7:30 AM	1	1	0	0	8	1	13	1	25
7:45 AM	1	0	0	0	1	1	6	0	9
8:00 AM	2	1	0	0	1	3	0	1	8
8:15 AM	0	0	0	0	1	0	1	0	2
8:30 AM	0	1	0	0	0	0	1	0	2
8:45 AM	0	0	0	0	1	0	1	0	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	6	7	0	0	20	6	30	4	73
APPROACH %'s :	46.15%	53.85%			76.92%	23.08%	88.24%	11.76%	
PEAK HR :	07:00 AM - 08:00 AM								TOTAL
PEAK HR VOL :	4	5	0	0	17	3	27	3	59
PEAK HR FACTOR :	1.000	0.313			0.531	0.750	0.519	0.375	0.590
	0.450				0.556		0.536		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	1	2	0	0	0	0	1	4
4:15 PM	0	3	0	0	0	1	0	1	5
4:30 PM	1	2	1	0	0	1	0	0	5
4:45 PM	0	1	0	0	2	3	0	1	7
5:00 PM	0	0	2	1	1	1	0	2	7
5:15 PM	2	2	0	0	0	1	0	1	6
5:30 PM	0	0	2	0	0	1	0	3	6
5:45 PM	1	0	0	2	0	1	3	1	8
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	4	9	7	3	3	9	3	10	48
APPROACH %'s :	30.77%	69.23%	70.00%	30.00%	25.00%	75.00%	23.08%	76.92%	
PEAK HR :	04:45 PM - 05:45 PM								TOTAL
PEAK HR VOL :	2	3	4	1	3	6	0	7	26
PEAK HR FACTOR :	0.250	0.375	0.500	0.250	0.375	0.500		0.583	0.929
	0.313		0.417		0.450		0.583		

Prepared by National Data & Surveying Services

Winton Way & Olive Ave

Peak Hour Turning Movement Count

ID: 18-07324-023
City: Winton

Day: Tuesday
Date: 09/25/2018

	PEAK HOURS	COUNT PERIODS
AM	07:30 AM - 08:30 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:45 PM - 05:45 PM	04:00 PM - 06:00 PM

Winton Way — SOUTHBOUND

AM	1	28	4	0	34
NOON	0	0	0	0	0
PM	1	68	6	0	64
	0	0	0	0	

Olive Ave — EASTBOUND

	AM	NOON	PM	
	35	0	32	
	0	0	0	0
	2	0	2	0
	24	0	34	0
	12	0	29	0

Olive Ave — WESTBOUND

	PM	NOON	AM
0	5	0	1
0	16	0	18
0	36	0	18
0	0	0	0
	63	0	41

CONTROL

0

	AM	NOON	PM
TEV	169	0	292
PHF	0.90		0.89

Winton Way — NORTHBOUND

		0	0	0	0
PM	133	0	15	57	23
NOON	0	0	0	0	0
AM	59	1	16	31	13

Total Vehicles (AM)

Approach	Movements
Southbound	1, 28, 4
Eastbound	2, 24, 12
Westbound	1, 18, 18
Northbound	16, 31, 13

Total Vehicles (Noon)

Approach	Movements
Southbound	N/A, N/A, N/A
Eastbound	N/A, N/A, N/A
Westbound	N/A, N/A, N/A
Northbound	N/A, N/A, N/A

Total Vehicles (PM)

Approach	Movements
Southbound	1, 68, 6
Eastbound	2, 34, 29
Westbound	5, 16, 36
Northbound	15, 57, 23

Bikes (AM)

Approach	Movements
Southbound	0, 0, 0
Eastbound	0, 0, 0
Westbound	0, 0, 1
Northbound	0, 0, 0

Bikes (NOON)

Approach	Movements
Southbound	N/A, N/A, N/A
Eastbound	N/A, N/A, N/A
Westbound	N/A, N/A, N/A
Northbound	N/A, N/A, N/A

Bikes (PM)

Approach	Movements
Southbound	0, 1, 0
Eastbound	0, 2, 0
Westbound	0, 0, 0
Northbound	0, 2, 1

Pedestrians (Crosswalks)

Crosswalk			
North (west half)	PM 1	NOON 0	AM 0
North (east half)	AM 0	NOON 0	PM 0
West (north half)	PM 0	NOON 0	AM 0
West (south half)	AM 0	NOON 0	PM 1
East (north half)	PM 0	NOON 0	AM 0
East (south half)	AM 1	NOON 0	PM 0
South (west half)	PM 0	NOON 0	AM 0
South (east half)	AM 0	NOON 0	PM 0
NW diagonal	PM 0	NOON 0	AM 0
NE diagonal	AM 0	NOON 0	PM 0
SW diagonal	AM 0	NOON 0	PM 0
SE diagonal	AM 0	NOON 0	PM 0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Olive Ave
City: Winton
Control:

Project ID: 18-07324-023
Date: 9/25/2018

Total

NS/EW Streets:	Winton Way				Winton Way				Olive Ave				Olive Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	4	10	5	0	0	3	1	0	0	0	1	0	5	5	1	0	35
7:15 AM	2	3	1	0	0	7	2	0	0	13	0	0	5	5	0	0	38
7:30 AM	3	6	4	0	1	9	0	0	0	6	4	0	7	3	0	0	43
7:45 AM	2	6	3	0	1	4	1	0	0	9	4	0	4	8	0	0	42
8:00 AM	5	7	2	0	0	8	0	0	1	6	2	0	4	2	0	0	37
8:15 AM	6	12	4	1	2	7	0	0	1	3	2	0	3	5	1	0	47
8:30 AM	0	9	1	1	1	2	0	0	0	2	0	0	3	8	2	0	29
8:45 AM	1	5	3	0	0	4	0	0	1	1	1	0	3	5	3	0	27
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	23	58	23	2	5	44	4	0	3	40	14	0	34	41	7	0	298
APPROACH %'s :	21.70%	54.72%	21.70%	1.89%	9.43%	83.02%	7.55%	0.00%	5.26%	70.18%	24.56%	0.00%	41.46%	50.00%	8.54%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	16	31	13	1	4	28	1	0	2	24	12	0	18	18	1	0	169
PEAK HR FACTOR :	0.667	0.646	0.813	0.250	0.500	0.778	0.250	0.000	0.500	0.667	0.750	0.000	0.643	0.563	0.250	0.000	0.899
	0.663				0.825				0.731				0.771				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	9	3	0	3	13	0	0	0	7	5	0	12	2	2	0	57
4:15 PM	6	6	5	0	0	14	1	0	0	11	3	0	5	4	1	0	56
4:30 PM	5	6	5	0	2	12	0	0	0	9	6	0	8	1	0	0	54
4:45 PM	5	12	7	0	2	20	0	0	0	11	5	0	9	3	1	0	75
5:00 PM	3	13	7	0	1	14	0	0	1	8	5	0	12	5	2	0	71
5:15 PM	2	12	8	0	1	23	0	0	0	7	11	0	9	7	2	0	82
5:30 PM	5	20	1	0	2	11	1	0	1	8	8	0	6	1	0	0	64
5:45 PM	7	10	8	0	1	11	0	0	1	13	7	0	8	3	0	0	69
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	34	88	44	0	12	118	2	0	3	74	50	0	69	26	8	0	528
APPROACH %'s :	20.48%	53.01%	26.51%	0.00%	9.09%	89.39%	1.52%	0.00%	2.36%	58.27%	39.37%	0.00%	66.99%	25.24%	7.77%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	15	57	23	0	6	68	1	0	2	34	29	0	36	16	5	0	292
PEAK HR FACTOR :	0.750	0.713	0.719	0.000	0.750	0.739	0.250	0.000	0.500	0.773	0.659	0.000	0.750	0.571	0.625	0.000	0.890
	0.913				0.781				0.903				0.750				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Olive Ave
City: Winton
Control: 0

Project ID: 18-07324-023
Date: 9/25/2018

Bikes

NS/EW Streets:	Winton Way				Winton Way				Olive Ave				Olive Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%									100.00%	0.00%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250
													0.250				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	4
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2	1	0	0	1	0	0	0	2	1	0	0	0	0	0	7
APPROACH %'s :	0.00%	66.67%	33.33%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	66.67%	33.33%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	2	1	0	0	1	0	0	0	2	0	0	0	0	0	0	6
PEAK HR FACTOR :	0.00	0.250	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.375
	0.375				0.250				0.250								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Olive Ave **Project ID:** 18-07324-023
City: Winton **Date:** 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Winton Way		Winton Way		Olive Ave		Olive Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	2	0	0	0	2
7:15 AM	0	0	0	0	0	1	0	0	1
7:30 AM	0	0	0	0	1	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	3	1	0	0	4
APPROACH %'s :					75.00%	25.00%			
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	1	0	0	0	1
PEAK HR FACTOR :					0.250				0.250
					0.250				

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	0	1
4:30 PM	0	1	0	0	0	0	0	1	2
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	1	0	0	0	0	0	1	0	2
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	1	0	0	0	0	2	1	5
APPROACH %'s :	50.00%	50.00%					66.67%	33.33%	
PEAK HR :	04:45 PM - 05:45 PM								TOTAL
PEAK HR VOL :	1	0	0	0	0	0	1	0	2
PEAK HR FACTOR :	0.250						0.250		0.250
	0.250						0.250		

Prepared by National Data & Surveying Services

Winton Way & Atwater Blvd

Peak Hour Turning Movement Count

ID: 18-07324-024
City: Atwater

Day: Tuesday
Date: 09/25/2018

	PEAK HOURS	COUNT PERIODS
AM	07:15 AM - 08:15 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:00 PM - 05:00 PM	04:00 PM - 06:00 PM

Winton Way — SOUTHBOUND

	Right	Through	Left	U-Turn	Departing
AM	94	262	136	0	336
NOON	0	0	0	0	0
PM	95	272	110	0	678
	0	0	0	0	

Atwater Blvd — WESTBOUND

		PM	NOON	AM
Right	0	114	0	93
Through	0	205	0	296
Left	0	177	0	141
U-Turn	0	0	0	0
Departing		733	0	438

Atwater Blvd — EASTBOUND

	AM	NOON	PM	
Departing	411	0	335	
U-Turn	0	0	0	0
Left	47	0	136	0
Through	205	0	397	0
Right	44	0	67	0

Winton Way — NORTHBOUND

	Departing	U-Turn	Left	Through	Right
		0	0	0	0
PM	516	0	35	428	226
NOON	0	0	0	0	0
AM	447	0	21	196	97

CONTROL

0

	AM	NOON	PM
TEV	1632	0	2262
PHF	0.86		0.94

Total Vehicles (AM)

Approach	Left	Through	Right
Southbound	136	262	94
Westbound	141	296	93
Northbound	21	196	97
Eastbound	47	205	44

Total Vehicles (Noon)

Approach	Left	Through	Right
Southbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A

Total Vehicles (PM)

Approach	Left	Through	Right
Southbound	110	272	95
Westbound	177	205	114
Northbound	35	428	226
Eastbound	136	397	67

Pedestrians (Crosswalks)

Crosswalk	AM	NOON	PM
North leg (eastbound)	0	0	0
North leg (westbound)	0	0	0
South leg (eastbound)	0	0	0
South leg (westbound)	0	0	0
West leg (southbound)	0	0	0
West leg (northbound)	0	0	0
East leg (southbound)	2	0	1
East leg (northbound)	1	0	2
NW diagonal	0	0	0
NE diagonal	0	0	0
SW diagonal	0	0	0
SE diagonal	0	0	0

Bikes (AM)

Approach	Left	Through	Right
Southbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0
Eastbound	0	0	0

Bikes (NOON)

Approach	Left	Through	Right
Southbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A

Bikes (PM)

Approach	Left	Through	Right
Southbound	0	1	0
Westbound	0	0	0
Northbound	0	1	0
Eastbound	0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Atwater Blvd
City: Atwater
Control:

Project ID: 18-07324-024
Date: 9/25/2018

Total

NS/EW Streets:	Winton Way				Winton Way				Atwater Blvd				Atwater Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	5	48	26	0	14	42	19	0	7	31	11	0	29	72	20	0	324
7:15 AM	4	46	18	0	27	41	26	0	11	49	9	0	30	97	23	0	381
7:30 AM	3	60	30	0	46	72	36	0	17	58	11	0	42	82	19	0	476
7:45 AM	8	51	25	0	26	72	20	0	13	52	14	0	42	50	30	0	403
8:00 AM	6	39	24	0	37	77	12	0	6	46	10	0	27	67	21	0	372
8:15 AM	3	38	23	0	21	55	13	0	13	40	17	0	39	62	17	0	341
8:30 AM	3	44	31	0	16	42	19	0	14	48	9	0	34	56	18	0	334
8:45 AM	9	52	36	0	17	47	17	0	15	43	17	0	32	56	10	0	351
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	41	378	213	0	204	448	162	0	96	367	98	0	275	542	158	0	2982
APPROACH %'s :	6.49%	59.81%	33.70%	0.00%	25.06%	55.04%	19.90%	0.00%	17.11%	65.42%	17.47%	0.00%	28.21%	55.59%	16.21%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	21	196	97	0	136	262	94	0	47	205	44	0	141	296	93	0	1632
PEAK HR FACTOR :	0.656	0.817	0.808	0.000	0.739	0.851	0.653	0.000	0.691	0.884	0.786	0.000	0.839	0.763	0.775	0.000	0.857
	0.844				0.799				0.860				0.883				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	12	108	53	0	27	61	28	0	34	96	15	0	49	44	26	0	553
4:15 PM	7	97	54	0	24	81	17	0	33	97	13	0	37	48	23	0	531
4:30 PM	8	104	54	0	35	62	21	0	35	97	17	0	53	58	32	0	576
4:45 PM	8	119	65	0	24	68	29	0	34	107	22	0	38	55	33	0	602
5:00 PM	7	82	55	0	23	66	21	0	22	87	14	0	44	61	39	0	521
5:15 PM	8	75	40	0	39	44	27	0	31	104	14	0	25	55	36	0	498
5:30 PM	11	84	47	0	32	68	21	0	34	83	15	0	50	47	26	0	518
5:45 PM	8	78	35	0	22	72	30	0	27	79	14	0	27	58	22	0	472
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	69	747	403	0	226	522	194	0	250	750	124	0	323	426	237	0	4271
APPROACH %'s :	5.66%	61.28%	33.06%	0.00%	23.99%	55.41%	20.59%	0.00%	22.24%	66.73%	11.03%	0.00%	32.76%	43.20%	24.04%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	35	428	226	0	110	272	95	0	136	397	67	0	177	205	114	0	2262
PEAK HR FACTOR :	0.729	0.899	0.869	0.000	0.786	0.840	0.819	0.000	0.971	0.928	0.761	0.000	0.835	0.884	0.864	0.000	0.939
	0.897				0.977				0.920				0.867				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Atwater Blvd
City: Atwater
Control: 0

Project ID: 18-07324-024
Date: 9/25/2018

Bikes

NS/EW Streets:	Winton Way				Winton Way				Atwater Blvd				Atwater Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
APPROACH %'s :	0.00%	50.00%	50.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
APPROACH %'s :	50.00%	50.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
	0.250				0.250												

National Data & Surveying Services

Intersection Turning Movement Count

Location: Winton Way & Atwater Blvd
City: Atwater
Project ID: 18-07324-024
Date: 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Winton Way		Winton Way		Atwater Blvd		Atwater Blvd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	1	0	0	1
8:00 AM	0	0	0	0	1	1	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	2	0	0	3
APPROACH %'s :					33.33%	66.67%			
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	0	0	0	0	1	2	0	0	3
PEAK HR FACTOR :					0.250	0.500			0.375
					0.375				

	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
PM	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	1	0	0	0	1
4:45 PM	0	0	0	0	1	1	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	1	0	0	0	1
5:30 PM	1	0	0	0	0	1	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	0	0	0	3	2	0	0	6
APPROACH %'s :	100.00%	0.00%			60.00%	40.00%			
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	0	0	0	2	1	0	0	3
PEAK HR FACTOR :					0.500	0.250			0.375
					0.375				

Prepared by National Data & Surveying Services

Applegate Rd & Sycamore Ave

Peak Hour Turning Movement Count

ID: 18-07324-025
City: Atwater

Day: Tuesday
Date: 09/25/2018

PEAK HOURS		COUNT PERIODS
AM	07:30 AM - 08:30 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:00 PM - 05:00 PM	04:00 PM - 06:00 PM

Applegate Rd – SOUTHBOUND

	Right	Through	Left	U-Turn	Approach (northbound departure)
AM	57	415	3	0	314
NOON	0	0	0	0	0
PM	64	447	3	0	671
Peds/other	0	0	0	0	

Sycamore Ave – EASTBOUND

	AM	NOON	PM	
Westbound departure	227	0	263	
U-Turn	0	0	0	0
Left	61	0	95	0
Through	2	0	1	0
Right	126	0	163	0

Sycamore Ave – WESTBOUND

	PM	NOON	AM
Right (0)	6	0	1
Through (0)	1	0	0
Left (0)	4	0	3
U-Turn (0)	0	0	0
Eastbound departure	4	0	10

Applegate Rd – NORTHBOUND

	Southbound departure	U-Turn	Left	Through	Right
		0	0	0	0
PM	614	0	198	570	0
NOON	0	0	0	0	0
AM	544	0	170	252	5

CONTROL

0

	AM	NOON	PM
TEV	1095	0	1552
PHF	0.90		0.97

Total Vehicles (AM)

SB: 57 (right), 415 (through), 3 (left); EB: 61 (left), 2 (through), 126 (right); WB: 1 (right), 0 (through), 3 (left); NB: 170 (left), 252 (through), 5 (right)

Total Vehicles (Noon)

All movements: N/A

Total Vehicles (PM)

SB: 64, 447, 3; EB: 95, 1, 163; WB: 6, 1, 4; NB: 198, 570, 0

Bikes (AM)

SB: 0, 0, 0; EB: 0, 0, 0; WB: 0, 0, 2; NB: 0, 1, 1

Bikes (NOON)

All movements: N/A

Bikes (PM)

SB: 0, 1, 1; EB: 0, 0, 0; WB: 0, 0, 0; NB: 1, 1, 0

Pedestrians (Crosswalks)

Crosswalk	AM	NOON	PM
North leg (west to east)	2	0	1
North leg (east to west)	4	0	1
West leg (southbound)	4	0	3
West leg (northbound)	2	0	4
East leg (southbound)	0	0	0
East leg (northbound)	0	0	0
South leg	0	0	0
South leg	0	0	0
Corner diagonals	0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Applegate Rd & Sycamore Ave
City: Atwater
Control:

Project ID: 18-07324-025
Date: 9/25/2018

Total

NS/EW Streets:	Applegate Rd				Applegate Rd				Sycamore Ave				Sycamore Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	45	60	0	0	1	68	17	0	15	0	24	0	0	0	0	0	230
7:15 AM	61	57	2	0	0	58	12	0	11	0	19	0	1	0	0	0	221
7:30 AM	45	80	2	0	1	105	16	0	17	0	24	0	2	0	0	0	292
7:45 AM	46	65	1	0	1	114	13	0	15	1	46	0	1	0	1	0	304
8:00 AM	40	57	2	0	1	100	15	0	12	0	31	0	0	0	0	0	258
8:15 AM	39	50	0	0	0	96	13	0	17	1	25	0	0	0	0	0	241
8:30 AM	44	64	0	0	0	74	14	0	17	0	26	0	1	0	0	0	240
8:45 AM	35	70	0	0	2	69	17	0	20	0	32	0	0	0	0	0	245
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	355	503	7	0	6	684	117	0	124	2	227	0	5	0	1	0	2031
APPROACH %'s :	41.04%	58.15%	0.81%	0.00%	0.74%	84.76%	14.50%	0.00%	35.13%	0.57%	64.31%	0.00%	83.33%	0.00%	16.67%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	170	252	5	0	3	415	57	0	61	2	126	0	3	0	1	0	1095
PEAK HR FACTOR :	0.924	0.788	0.625	0.000	0.750	0.910	0.891	0.000	0.897	0.500	0.685	0.000	0.375	0.000	0.250	0.000	0.900
	0.841				0.928				0.762				0.500				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	46	137	0	0	1	112	14	0	25	0	48	0	3	1	4	0	391
4:15 PM	52	127	0	0	1	116	19	0	25	0	32	0	1	0	0	0	373
4:30 PM	62	136	0	0	0	110	16	0	26	1	38	0	0	0	1	0	390
4:45 PM	38	170	0	0	1	109	15	0	19	0	45	0	0	0	1	0	398
5:00 PM	61	121	0	0	0	113	19	0	17	0	43	0	0	0	0	0	374
5:15 PM	39	123	0	0	0	72	7	0	19	0	47	0	0	0	0	0	307
5:30 PM	49	107	0	0	0	124	13	0	21	0	29	0	0	0	0	0	343
5:45 PM	41	110	1	0	0	100	10	0	23	0	43	0	0	0	0	0	328
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	388	1031	1	0	3	856	113	0	175	1	325	0	4	1	6	0	2904
APPROACH %'s :	27.32%	72.61%	0.07%	0.00%	0.31%	88.07%	11.63%	0.00%	34.93%	0.20%	64.87%	0.00%	36.36%	9.09%	54.55%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	198	570	0	0	3	447	64	0	95	1	163	0	4	1	6	0	1552
PEAK HR FACTOR :	0.798	0.838	0.000	0.000	0.750	0.963	0.842	0.000	0.913	0.250	0.849	0.000	0.333	0.250	0.375	0.000	0.975
	0.923				0.945				0.887				0.344				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Applegate Rd & Sycamore Ave
City: Atwater
Control: 0

Project ID: 18-07324-025
Date: 9/25/2018

Bikes

NS/EW Streets:	Applegate Rd				Applegate Rd				Sycamore Ave				Sycamore Ave				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	1	0	0	0	0	0	0	0	0	0	3	0	0	0	5
APPROACH %'s :	0.00%	50.00%	50.00%	0.00%									100.00%	0.00%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	1	1	0	0	0	0	0	0	0	0	0	2	0	0	0	4
PEAK HR FACTOR :	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.500
	0.250												0.250				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	5
APPROACH %'s :	33.33%	66.67%	0.00%	0.00%	50.00%	50.00%	0.00%	0.00%									
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	4
PEAK HR FACTOR :	0.25	0.250	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333
	0.500				0.250												

National Data & Surveying Services

Intersection Turning Movement Count

Location: Applegate Rd & Sycamore Ave **Project ID:** 18-07324-025
City: Atwater **Date:** 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Applegate Rd		Applegate Rd		Sycamore Ave		Sycamore Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	2	0	0	0	0	0	2	4
8:00 AM	2	0	0	0	0	0	2	0	4
8:15 AM	0	2	0	0	0	0	0	2	4
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	2	4	0	0	0	0	2	4	12
APPROACH %'s :	33.33%	66.67%					33.33%	66.67%	
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	2	4	0	0	0	0	2	4	12
PEAK HR FACTOR :	0.250	0.500					0.250	0.500	0.750
	0.750						0.750		

	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
PM	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	1	1
4:15 PM	0	0	0	0	0	0	2	0	2
4:30 PM	0	0	0	0	0	0	1	0	1
4:45 PM	1	1	0	0	0	0	1	2	5
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	1	0	0	0	0	0	1	0	2
5:30 PM	1	2	0	0	0	0	0	1	4
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	3	3	0	0	0	0	5	4	15
APPROACH %'s :	50.00%	50.00%					55.56%	44.44%	
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	1	1	0	0	0	0	4	3	9
PEAK HR FACTOR :	0.250	0.250					0.500	0.375	0.450
	0.250						0.583		

Prepared by National Data & Surveying Services

Applegate Rd & Commerce Ave/Bell Dr

Peak Hour Turning Movement Count

ID: 18-07324-026
City: Atwater

Day: Tuesday
Date: 09/25/2018

PEAK HOURS		COUNT PERIODS
AM	07:15 AM - 08:15 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:00 PM - 05:00 PM	04:00 PM - 06:00 PM

Applegate Rd — SOUTHBOUND

	Right	Through	Left	U-Turn	Total
AM	94	176	96	10	458
NOON	0	0	0	0	0
PM	105	148	259	10	767
	0	0	0	0	

Commerce Ave/Bell Dr — EASTBOUND

	AM	NOON	PM	
Total	242	0	370	
U-Turn	0	0	6	0
Left	143	0	184	0
Through	95	0	192	0
Right	83	0	109	0

Commerce Ave/Bell Dr — WESTBOUND

		PM	NOON	AM
Right	0	287	0	81
Through	0	132	0	65
Left	0	19	0	10
U-Turn	0	0	0	0
Total		478	0	208

CONTROL

0

	AM	NOON	PM
TEV	1177	0	1891
PHF	0.95		0.96

Applegate Rd — NORTHBOUND

	Total	U-Turn	Left	Through	Right
		0	0	0	0
PM	276	0	127	286	27
NOON	0	0	0	0	0
AM	269	0	83	224	17

Total Vehicles (AM)

Approach	Left	Through	Right
Southbound	96	176	94
Eastbound	143	95	83
Westbound	10	65	81
Northbound	83	224	17

Total Vehicles (Noon)

Approach	Left	Through	Right
Southbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A

Total Vehicles (PM)

Approach	Left	Through	Right
Southbound	259	148	105
Eastbound	184	192	109
Westbound	19	132	287
Northbound	127	286	27

Bikes (AM)

Approach	Left	Through	Right
Southbound	2	0	0
Eastbound	0	0	0
Westbound	0	0	1
Northbound	0	0	0

Bikes (NOON)

Approach	Left	Through	Right
Southbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A

Bikes (PM)

Approach	Left	Through	Right
Southbound	1	0	0
Eastbound	0	0	0
Westbound	0	0	2
Northbound	0	0	0

Pedestrians (Crosswalks)

Crosswalk	AM	NOON	PM
North leg (west side / east side)	0 / 0	0 / 0	1 / 4
West leg (north side / south side)	2 / 0	0 / 0	0 / 1
East leg (north side / south side)	0 / 0	0 / 0	0 / 0
South leg (west side / east side)	0 / 0	0 / 0	2 / 1
NW corner diagonal	0	0	0
NE corner diagonal	0	0	0
SW corner diagonal	0	0	0
SE corner diagonal	0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Applegate Rd & Commerce Ave/Bell Dr
City: Atwater
Control:

Project ID: 18-07324-026
Date: 9/25/2018

Total

NS/EW Streets:	Applegate Rd				Applegate Rd				Commerce Ave/Bell Dr				Commerce Ave/Bell Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	19	51	1	0	16	29	13	1	37	16	20	0	1	11	17	0	232
7:15 AM	23	68	4	0	16	25	16	2	32	23	24	0	3	17	26	0	279
7:30 AM	15	60	2	0	13	52	30	1	43	17	19	0	1	13	19	0	285
7:45 AM	22	50	8	0	32	60	24	5	37	15	20	0	2	15	20	0	310
8:00 AM	23	46	3	0	35	39	24	2	31	40	20	0	4	20	16	0	303
8:15 AM	18	36	4	0	34	40	15	3	33	20	22	0	3	14	17	0	259
8:30 AM	19	45	5	0	25	30	21	2	42	23	20	1	3	24	18	0	278
8:45 AM	18	43	3	0	31	27	27	0	37	20	27	2	1	19	27	0	282
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	157	399	30	0	202	302	170	16	292	174	172	3	18	133	160	0	2228
APPROACH %'s :	26.79%	68.09%	5.12%	0.00%	29.28%	43.77%	24.64%	2.32%	45.55%	27.15%	26.83%	0.47%	5.79%	42.77%	51.45%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	83	224	17	0	96	176	94	10	143	95	83	0	10	65	81	0	1177
PEAK HR FACTOR :	0.902	0.824	0.531	0.000	0.686	0.733	0.783	0.500	0.831	0.594	0.865	0.000	0.625	0.813	0.779	0.000	0.949
	0.853				0.777				0.882				0.848				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	30	53	2	0	75	36	28	2	43	51	28	1	6	41	66	0	462
4:15 PM	31	71	8	0	64	33	30	3	52	49	26	3	2	23	59	0	454
4:30 PM	38	69	7	0	53	37	27	3	41	43	31	1	4	39	92	0	485
4:45 PM	28	93	10	0	67	42	20	2	48	49	24	1	7	29	70	0	490
5:00 PM	29	66	9	0	57	45	28	5	40	50	20	1	3	31	67	0	451
5:15 PM	23	78	11	0	44	31	40	3	38	50	29	0	5	20	57	0	429
5:30 PM	36	51	4	0	64	35	20	1	35	51	30	1	6	28	44	0	406
5:45 PM	22	56	5	0	54	35	24	0	53	40	21	1	6	30	47	0	394
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	237	537	56	0	478	294	217	19	350	383	209	9	39	241	502	0	3571
APPROACH %'s :	28.55%	64.70%	6.75%	0.00%	47.42%	29.17%	21.53%	1.88%	36.80%	40.27%	21.98%	0.95%	4.99%	30.82%	64.19%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	127	286	27	0	259	148	105	10	184	192	109	6	19	132	287	0	1891
PEAK HR FACTOR :	0.836	0.769	0.675	0.000	0.863	0.881	0.875	0.833	0.885	0.941	0.879	0.500	0.679	0.805	0.780	0.000	0.965
	0.840				0.926				0.944				0.811				

National Data & Surveying Services
Intersection Turning Movement Count

Location: Applegate Rd & Commerce Ave/Bell Dr
City: Atwater
Control: 0

Project ID: 18-07324-026
Date: 9/25/2018

Bikes

NS/EW Streets:	Applegate Rd				Applegate Rd				Commerce Ave/Bell Dr				Commerce Ave/Bell Dr				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	3
APPROACH %'s :					100.00%	0.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	3
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.750
					0.500								0.250				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0	4
APPROACH %'s :					100.00%	0.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	3
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.375
					0.250								0.250				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Applegate Rd & Commerce Ave/Bell Dr **Project ID:** 18-07324-026
City: Atwater **Date:** 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Applegate Rd		Applegate Rd		Commerce Ave/Bell Dr		Commerce Ave/Bell Dr		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	1	0	0	0	0	1	2
7:45 AM	0	0	1	0	0	0	0	1	2
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	3	3
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	2	0	0	0	0	5	7
APPROACH %'s :			100.00%	0.00%			0.00%	100.00%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	0	0	2	0	0	0	0	2	4
PEAK HR FACTOR :			0.500					0.500	0.500
			0.500				0.500		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	1	0	0	1	0	2
4:15 PM	1	1	0	0	0	0	0	0	2
4:30 PM	0	1	0	0	0	0	0	0	1
4:45 PM	0	2	0	0	0	0	0	0	2
5:00 PM	0	0	0	1	0	1	0	0	2
5:15 PM	1	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	1	0	0	0	0	1	1	0	3
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	3	4	0	2	0	2	2	0	13
APPROACH %'s :	42.86%	57.14%	0.00%	100.00%	0.00%	100.00%	100.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	1	4	0	1	0	0	1	0	7
PEAK HR FACTOR :	0.250	0.500		0.250			0.250		0.875
	0.625		0.250				0.250		

Prepared by National Data & Surveying Services

Buhach Rd & Santa Fe Dr

Peak Hour Turning Movement Count

ID: 18-07324-027
City: Atwater

Day: Tuesday
Date: 09/25/2018

PEAK HOURS		COUNT PERIODS
07:30 AM - 08:30 AM	AM	07:00 AM - 09:00 AM
NONE	NOON	NONE
04:15 PM - 05:15 PM	PM	04:00 PM - 06:00 PM

Buhach Rd — SOUTHBOUND

	Right	Through	Left	U-Turn	Out
AM	29	55	14	0	356
NOON	0	0	0	0	0
PM	96	151	48	0	105
	0	0	0	0	

Santa Fe Dr — EASTBOUND

	AM	NOON	PM	
Out	311	0	588	
U-Turn	0	0	0	0
Left	105	0	34	0
Through	514	0	337	0
Right	57	0	101	0

Santa Fe Dr — WESTBOUND

		PM	NOON	AM
Right	0	17	0	69
Through	0	392	0	223
Left	0	3	0	5
U-Turn	0	0	0	0
Out		390	0	544

Buhach Rd — NORTHBOUND

	Out	U-Turn	Left	Through	Right
		0	0	0	0
PM	255	0	100	54	5
NOON	0	0	0	0	0
AM	117	0	59	182	16

CONTROL

0

	AM	NOON	PM
TEV	1328	0	1338
PHF	0.88		0.94

Total Vehicles (AM)

	Left	Through	Right	U-Turn
Southbound	14	55	29	
Eastbound	105	514	57	
Westbound	5	223	69	
Northbound	59	182	16	

Total Vehicles (Noon)

All movements: N/A

Total Vehicles (PM)

	Left	Through	Right
Southbound	48	151	96
Eastbound	34	337	101
Westbound	3	392	17
Northbound	100	54	5

Bikes (AM)

	Left	Through	Right
Southbound	0	1	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	1	0

Bikes (NOON)

All movements: N/A

Bikes (PM)

	Left	Through	Right
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0

Pedestrians (Crosswalks)

Crosswalk	Direction	AM	NOON	PM
North	Eastbound	0	0	0
North	Westbound	0	0	0
West	Southbound	0	0	0
West	Northbound	1	0	0
East	Southbound	1	0	1
East	Northbound	1	0	0
South	Eastbound	0	0	0
South	Westbound	1	0	0
NW diagonal		0	0	0
NE diagonal		0	0	0
SW diagonal		0	0	0
SE diagonal		0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Buhach Rd & Santa Fe Dr
City: Atwater
Control:

Project ID: 18-07324-027
Date: 9/25/2018

Total

NS/EW Streets:	Buhach Rd				Buhach Rd				Santa Fe Dr				Santa Fe Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	4	0	1	0	9	91	0	0	0	59	4	0	168
7:15 AM	0	0	0	0	3	0	1	0	13	114	0	0	0	93	9	0	233
7:30 AM	18	53	4	0	1	8	3	0	24	169	24	0	3	61	11	0	379
7:45 AM	8	42	4	0	8	7	7	0	27	132	6	0	1	60	20	0	322
8:00 AM	26	59	6	0	3	22	8	0	32	112	15	0	1	47	19	0	350
8:15 AM	7	28	2	0	2	18	11	0	22	101	12	0	0	55	19	0	277
8:30 AM	16	34	2	0	9	6	13	0	14	77	9	0	0	39	9	0	228
8:45 AM	14	34	0	0	5	11	9	0	22	80	8	0	1	49	16	0	249
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	89	250	18	0	35	72	53	0	163	876	74	0	6	463	107	0	2206
APPROACH %'s :	24.93%	70.03%	5.04%	0.00%	21.88%	45.00%	33.13%	0.00%	14.65%	78.71%	6.65%	0.00%	1.04%	80.38%	18.58%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	59	182	16	0	14	55	29	0	105	514	57	0	5	223	69	0	1328
PEAK HR FACTOR :	0.567	0.771	0.667	0.000	0.438	0.625	0.659	0.000	0.820	0.760	0.594	0.000	0.417	0.914	0.863	0.000	0.876
	0.706				0.742				0.779				0.917				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	25	20	0	0	13	40	20	0	12	67	27	0	0	83	7	0	314
4:15 PM	25	16	0	0	9	30	16	0	14	96	21	0	0	112	4	0	343
4:30 PM	14	14	2	0	9	53	30	0	8	68	27	0	1	92	4	0	322
4:45 PM	28	18	2	0	11	27	12	0	7	86	31	0	0	91	4	0	317
5:00 PM	33	6	1	0	19	41	38	0	5	87	22	0	2	97	5	0	356
5:15 PM	17	13	2	0	8	12	10	0	3	87	33	0	6	112	5	0	308
5:30 PM	19	5	3	0	9	23	14	0	4	94	25	0	2	93	3	0	294
5:45 PM	18	13	1	0	7	13	4	0	11	72	21	0	1	73	4	0	238
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	179	105	11	0	85	239	144	0	64	657	207	0	12	753	36	0	2492
APPROACH %'s :	60.68%	35.59%	3.73%	0.00%	18.16%	51.07%	30.77%	0.00%	6.90%	70.80%	22.31%	0.00%	1.50%	94.01%	4.49%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	100	54	5	0	48	151	96	0	34	337	101	0	3	392	17	0	1338
PEAK HR FACTOR :	0.758	0.750	0.625	0.000	0.632	0.712	0.632	0.000	0.607	0.878	0.815	0.000	0.375	0.875	0.850	0.000	0.940
	0.828				0.753				0.901				0.888				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Buhach Rd & Santa Fe Dr
City: Atwater
Control: 0

Project ID: 18-07324-027
Date: 9/25/2018

Bikes

NS/EW Streets:	Buhach Rd				Buhach Rd				Santa Fe Dr				Santa Fe Dr				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
	0.250				0.250												

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Buhach Rd & Santa Fe Dr
City: Atwater
Project ID: 18-07324-027
Date: 9/25/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Buhach Rd		Buhach Rd		Santa Fe Dr		Santa Fe Dr		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	1	0	0	0	0	1
7:45 AM	0	0	0	0	0	1	0	0	1
8:00 AM	0	0	0	0	1	0	0	0	1
8:15 AM	0	0	0	0	0	0	1	0	1
8:30 AM	0	0	0	0	3	0	0	0	3
8:45 AM	0	0	0	0	2	0	0	0	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	1	6	1	1	0	9
APPROACH %'s :			0.00%	100.00%	85.71%	14.29%	100.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	1	1	1	1	0	4
PEAK HR FACTOR :				0.250	0.250	0.250	0.250		1.000
			0.250		0.500		0.250		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	1	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	1	0	0	1
APPROACH %'s :					0.00%	100.00%			
PEAK HR :	04:15 PM - 05:15 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	1	0	0	1
PEAK HR FACTOR :						0.250			0.250
					0.250				

Prepared by National Data & Surveying Services

CLASSIFICATION

N Winton Way Bet. Fruitland Ave & Gertrude Ave

Day: Tuesday
Date: 9/25/2018

City: Winton
Project #: CA18_7325_001

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	47	6	0	6	0	0	0	0	0	0	0	0	59
01:00	0	40	6	0	3	0	0	0	0	0	0	0	0	49
02:00	0	26	2	0	1	0	0	1	0	0	0	0	0	30
03:00	0	44	5	0	6	0	0	1	0	0	0	0	0	56
04:00	0	94	11	0	13	0	0	0	1	0	2	0	0	121
05:00	3	222	38	1	22	0	0	2	3	0	0	0	0	291
06:00	1	321	59	4	54	0	0	1	2	0	0	0	0	442
07:00	0	880	126	11	119	0	0	0	1	0	0	0	0	1137
08:00	2	474	73	3	58	0	0	3	4	0	0	0	0	617
09:00	1	398	66	1	58	0	0	1	1	0	1	0	0	527
10:00	0	428	74	4	79	0	0	1	3	0	1	0	0	590
11:00	1	570	92	2	82	0	0	2	0	0	0	0	0	749
12:00 PM	0	606	105	4	109	0	0	2	2	0	0	0	0	828
13:00	1	577	90	3	85	2	0	2	1	0	0	0	0	761
14:00	0	813	129	9	114	5	0	0	1	0	0	0	0	1071
15:00	1	804	127	9	120	0	0	3	1	0	0	0	0	1065
16:00	1	837	149	5	126	0	0	0	0	0	1	0	0	1119
17:00	2	852	142	8	117	0	0	2	2	0	0	0	0	1125
18:00	2	823	116	5	116	0	0	0	1	0	1	0	0	1064
19:00	0	637	86	3	79	1	0	0	0	0	0	0	0	806
20:00	3	409	55	0	43	0	0	0	1	0	0	0	0	511
21:00	0	259	40	0	35	0	0	0	0	0	0	0	0	334
22:00	2	139	23	0	17	0	0	0	0	0	0	0	0	181
23:00	0	78	11	1	11	0	0	0	0	0	0	0	0	101
Totals	20	10378	1631	73	1473	8		21	24		6			13634
% of Totals	0%	76%	12%	1%	11%	0%		0%	0%		0%			100%

	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
AM Volumes	8	3544	558	26	501	0	0	12	15	0	4	0	0	4668
% AM	0%	26%	4%	0%	4%			0%	0%		0%			34%
AM Peak Hour	05:00	07:00	07:00	07:00	07:00			08:00	08:00		04:00			07:00
Volume	3	880	126	11	119			3	4		2			1137
PM Volumes	12	6834	1073	47	972	8	0	9	9	0	2	0	0	8966
% PM	0%	50%	8%	0%	7%	0%		0%	0%		0%			66%
PM Peak Hour	20:00	17:00	16:00	14:00	16:00	14:00		15:00	12:00		16:00			17:00
Volume	3	852	149	9	126	5		3	2		1			1125

Directional Peak Periods All Classes	AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes	
	Volume	%	Volume	%	Volume	%	Volume	%
	1754	13%	1589	12%	2244	16%	8047	59%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by NDS/ATD

Prepared by National Data & Surveying Services

VOLUME

N Winton Way Bet. Fruitland Ave & Gertrude Ave

Day: Tuesday | **City:** Winton

Date: 9/25/2018 | **Project #:** CA18_7325_001

DAILY TOTALS	NB	SB	EB	WB	Total
	6,970	6,664	0	0	13,634

AM Period	NB		SB		EB	WB	TOTAL	
00:00	9		7		0	0	16	
00:15	13		4		0	0	17	
00:30	10		7		0	0	17	
00:45	3	35	6	24	0	0	9	59
01:00	8		8		0	0	16	
01:15	4		3		0	0	7	
01:30	8		8		0	0	16	
01:45	5	25	5	24	0	0	10	49
02:00	5		8		0	0	13	
02:15	5		4		0	0	9	
02:30	1		3		0	0	4	
02:45	1	12	3	18	0	0	4	30
03:00	7		4		0	0	11	
03:15	6		13		0	0	19	
03:30	3		4		0	0	7	
03:45	5	21	14	35	0	0	19	56
04:00	3		19		0	0	22	
04:15	8		19		0	0	27	
04:30	15		15		0	0	30	
04:45	15	41	27	80	0	0	42	121
05:00	24		33		0	0	57	
05:15	20		47		0	0	67	
05:30	31		47		0	0	78	
05:45	38	113	51	178	0	0	89	291
06:00	44		36		0	0	80	
06:15	52		47		0	0	99	
06:30	42		69		0	0	111	
06:45	82	220	70	222	0	0	152	442
07:00	87		97		0	0	184	
07:15	140		149		0	0	289	
07:30	144		181		0	0	325	
07:45	135	506	204	631	0	0	339	1137
08:00	92		93		0	0	185	
08:15	64		58		0	0	122	
08:30	75		70		0	0	145	
08:45	69	300	96	317	0	0	165	617
09:00	56		78		0	0	134	
09:15	56		69		0	0	125	
09:30	53		64		0	0	117	
09:45	70	235	81	292	0	0	151	527
10:00	74		80		0	0	154	
10:15	74		74		0	0	148	
10:30	65		76		0	0	141	
10:45	70	283	77	307	0	0	147	590
11:00	134		77		0	0	211	
11:15	76		80		0	0	156	
11:30	90		86		0	0	176	
11:45	113	413	93	336	0	0	206	749
TOTALS		2204		2464				4668
SPLIT %		47.2%		52.8%				34.2%

PM Period	NB		SB		EB	WB	TOTAL	
12:00	102		137		0	0	239	
12:15	108		97		0	0	205	
12:30	92		84		0	0	176	
12:45	119	421	89	407	0	0	208	828
13:00	106		77		0	0	183	
13:15	100		61		0	0	161	
13:30	97		103		0	0	200	
13:45	132	435	85	326	0	0	217	761
14:00	121		105		0	0	226	
14:15	120		115		0	0	235	
14:30	147		149		0	0	296	
14:45	182	570	132	501	0	0	314	1071
15:00	160		131		0	0	291	
15:15	168		121		0	0	289	
15:30	130		92		0	0	222	
15:45	137	595	126	470	0	0	263	1065
16:00	150		126		0	0	276	
16:15	123		137		0	0	260	
16:30	160		129		0	0	289	
16:45	151	584	143	535	0	0	294	1119
17:00	143		158		0	0	301	
17:15	132		159		0	0	291	
17:30	136		143		0	0	279	
17:45	139	550	115	575	0	0	254	1125
18:00	152		147		0	0	299	
18:15	142		133		0	0	275	
18:30	141		114		0	0	255	
18:45	122	557	113	507	0	0	235	1064
19:00	136		119		0	0	255	
19:15	108		101		0	0	209	
19:30	111		80		0	0	191	
19:45	82	437	69	369	0	0	151	806
20:00	75		66		0	0	141	
20:15	74		62		0	0	136	
20:30	60		51		0	0	111	
20:45	74	283	49	228	0	0	123	511
21:00	46		54		0	0	100	
21:15	44		43		0	0	87	
21:30	43		32		0	0	75	
21:45	29	162	43	172	0	0	72	334
22:00	37		13		0	0	50	
22:15	28		16		0	0	44	
22:30	27		18		0	0	45	
22:45	23	115	19	66	0	0	42	181
23:00	15		16		0	0	31	
23:15	17		13		0	0	30	
23:30	10		12		0	0	22	
23:45	15	57	3	44	0	0	18	101
TOTALS		4766		4200				8966
SPLIT %		53.2%		46.8%				65.8%

DAILY TOTALS	NB	SB	EB	WB	Total
	6,970	6,664	0	0	13,634

	NB	SB	EB	WB	Total
AM Peak Hour	07:15	07:00			07:15
AM Pk Volume	511	631			1138
Pk Hr Factor	0.887	0.773			0.839
7 - 9 Volume	806	948	0	0	1754
7 - 9 Peak Hour	07:15	07:00			07:15
7 - 9 Pk Volume	511	631	0	0	1138
Pk Hr Factor	0.887	0.773	0.000	0.000	0.839

	NB	SB	EB	WB	Total
PM Peak Hour	14:30	16:45			14:30
PM Pk Volume	657	603			1190
Pk Hr Factor	0.902	0.948			0.947
4 - 6 Volume	1134	1110	0	0	2244
4 - 6 Peak Hour	16:30	16:45			16:30
4 - 6 Pk Volume	586	603	0	0	1175
Pk Hr Factor	0.916	0.948	0.000	0.000	0.976

Prepared by NDS/ATD

VOLUME

N Winton Way Bet. Gertrude Ave & Santa Fe Dr

Day: Tuesday
Date: 9/25/2018

City: Winton
Project #: CA18_7325_002

DAILY TOTALS	NB	SB	EB	WB	Total
	5,737	5,664	0	0	11,401

AM Period	NB		SB		EB	WB	TOTAL	
00:00	11		6				17	
00:15	10		3				13	
00:30	6		8				14	
00:45	3	30	4	21			7	51
01:00	5		4				9	
01:15	6		2				8	
01:30	6		8				14	
01:45	4	21	4	18			8	39
02:00	4		7				11	
02:15	5		6				11	
02:30	4		4				8	
02:45	2	15	2	19			4	34
03:00	8		5				13	
03:15	3		11				14	
03:30	3		2				5	
03:45	3	17	9	27			12	44
04:00	5		13				18	
04:15	14		17				31	
04:30	21		13				34	
04:45	13	53	31	74			44	127
05:00	19		21				40	
05:15	27		44				71	
05:30	26		43				69	
05:45	39	111	45	153			84	264
06:00	43		25				68	
06:15	41		25				66	
06:30	31		57				88	
06:45	56	171	48	155			104	326
07:00	55		78				133	
07:15	100		107				207	
07:30	135		143				278	
07:45	130	420	161	489			291	909
08:00	106		79				185	
08:15	58		61				119	
08:30	67		62				129	
08:45	47	278	84	286			131	564
09:00	51		68				119	
09:15	43		68				111	
09:30	47		57				104	
09:45	70	211	75	268			145	479
10:00	63		54				117	
10:15	69		70				139	
10:30	48		64				112	
10:45	59	239	74	262			133	501
11:00	70		67				137	
11:15	73		74				147	
11:30	79		79				158	
11:45	94	316	79	299			173	615
TOTALS		1882		2071				3953
SPLIT %		47.6%		52.4%				34.7%

PM Period	NB		SB		EB	WB	TOTAL	
12:00	87		89				176	
12:15	78		83				161	
12:30	74		67				141	
12:45	84	323	82	321			166	644
13:00	89		71				160	
13:15	78		52				130	
13:30	86		96				182	
13:45	105	358	69	288			174	646
14:00	85		92				177	
14:15	104		115				219	
14:30	94		121				215	
14:45	155	438	115	443			270	881
15:00	110		99				209	
15:15	127		102				229	
15:30	100		81				181	
15:45	90	427	111	393			201	820
16:00	111		109				220	
16:15	101		106				207	
16:30	113		119				232	
16:45	122	447	122	456			244	903
17:00	126		122				248	
17:15	98		125				223	
17:30	111		123				234	
17:45	113	448	103	473			216	921
18:00	134		122				256	
18:15	114		112				226	
18:30	122		95				217	
18:45	101	471	123	452			224	923
19:00	119		107				226	
19:15	90		90				180	
19:30	84		69				153	
19:45	82	375	56	322			138	697
20:00	71		56				127	
20:15	57		44				101	
20:30	58		48				106	
20:45	56	242	43	191			99	433
21:00	49		47				96	
21:15	46		32				78	
21:30	40		30				70	
21:45	32	167	34	143			66	310
22:00	32		15				47	
22:15	25		13				38	
22:30	26		19				45	
22:45	22	105	18	65			40	170
23:00	14		21				35	
23:15	17		12				29	
23:30	7		9				16	
23:45	16	54	4	46			20	100
TOTALS		3855		3593				7448
SPLIT %		51.8%		48.2%				65.3%

DAILY TOTALS	NB	SB	EB	WB	Total
	5,737	5,664	0	0	11,401

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour	07:15	07:15			07:15	PM Peak Hour	14:45	16:45			16:45
AM Pk Volume	471	490			961	PM Pk Volume	492	492			949
Pk Hr Factor	0.872	0.761			0.826	Pk Hr Factor	0.794	0.984			0.957
7 - 9 Volume	698	775	0	0	1473	4 - 6 Volume	895	929	0	0	1824
7 - 9 Peak Hour	07:15	07:15			07:15	4 - 6 Peak Hour	16:15	16:45			16:45
7 - 9 Pk Volume	471	490	0	0	961	4 - 6 Pk Volume	462	492	0	0	949
Pk Hr Factor	0.872	0.761	0.000	0.000	0.826	Pk Hr Factor	0.917	0.984	0.000	0.000	0.957

Prepared by NDS/ATD

VOLUME

N Winton Way Bet. Santa Fe Dr & Olive Ave

Day: Tuesday
Date: 9/25/2018

City: Winton
Project #: CA18_7325_003

DAILY TOTALS	NB	SB	EB	WB	Total
	2,768	2,513	0	0	5,281

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	5		3				8		12:00	49		24				73	
00:15	6		3				9		12:15	30		31				61	
00:30	4		2				6		12:30	31		27				58	
00:45	5	20	2	10			7	30	12:45	36	146	29	111			65	257
01:00	6		2				8		13:00	34		29				63	
01:15	3		0				3		13:15	33		16				49	
01:30	4		5				9		13:30	40		35				75	
01:45	5	18	5	12			10	30	13:45	30	137	30	110			60	247
02:00	3		1				4		14:00	43		37				80	
02:15	4		4				8		14:15	48		46				94	
02:30	3		3				6		14:30	54		43				97	
02:45	0	10	5	13			5	23	14:45	43	188	41	167			84	355
03:00	2		2				4		15:00	66		34				100	
03:15	2		7				9		15:15	49		34				83	
03:30	5		6				11		15:30	55		48				103	
03:45	1	10	5	20			6	30	15:45	44	214	34	150			78	364
04:00	2		11				13		16:00	49		41				90	
04:15	4		8				12		16:15	49		46				95	
04:30	14		10				24		16:30	46		47				93	
04:45	13	33	10	39			23	72	16:45	57	201	52	186			109	387
05:00	13		18				31		17:00	76		57				133	
05:15	17		27				44		17:15	60		74				134	
05:30	22		43				65		17:30	64		54				118	
05:45	27	79	29	117			56	196	17:45	59	259	56	241			115	500
06:00	33		17				50		18:00	68		50				118	
06:15	28		23				51		18:15	69		37				106	
06:30	20		42				62		18:30	56		45				101	
06:45	32	113	23	105			55	218	18:45	61	254	56	188			117	442
07:00	21		34				55		19:00	48		68				116	
07:15	15		41				56		19:15	54		55				109	
07:30	44		74				118		19:30	42		37				79	
07:45	41	121	46	195			87	316	19:45	44	188	30	190			74	378
08:00	55		32				87		20:00	49		36				85	
08:15	32		31				63		20:15	34		22				56	
08:30	22		28				50		20:30	33		19				52	
08:45	17	126	32	123			49	249	20:45	37	153	22	99			59	252
09:00	21		22				43		21:00	34		19				53	
09:15	28		18				46		21:15	24		18				42	
09:30	21		39				60		21:30	24		12				36	
09:45	17	87	27	106			44	193	21:45	17	99	19	68			36	167
10:00	32		27				59		22:00	19		8				27	
10:15	30		28				58		22:15	15		11				26	
10:30	16		22				38		22:30	15		8				23	
10:45	36	114	21	98			57	212	22:45	9	58	13	40			22	98
11:00	28		25				53		23:00	6		5				11	
11:15	24		26				50		23:15	10		4				14	
11:30	27		31				58		23:30	6		5				11	
11:45	35	114	25	107			60	221	23:45	4	26	4	18			8	44
TOTALS		845		945				**1790**	**TOTALS**		1923		1568				**3491**
SPLIT %		47.2%		52.8%				**33.9%**	**SPLIT %**		55.1%		44.9%				**66.1%**

DAILY TOTALS	NB	SB	EB	WB	Total
	2,768	2,513	0	0	5,281

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour	07:30	07:00			**07:30**	**PM Peak Hour**	17:30	17:00			**17:00**
AM Pk Volume	172	195			**355**	**PM Pk Volume**	260	241			**500**
Pk Hr Factor	0.782	0.659			**0.752**	**Pk Hr Factor**	0.942	0.814			**0.933**
7 - 9 Volume	247	318	0	0	**565**	**4 - 6 Volume**	460	427	0	0	**887**
7 - 9 Peak Hour	07:30	07:00			**07:30**	**4 - 6 Peak Hour**	17:00	17:00			**17:00**
7 - 9 Pk Volume	172	195	0	0	**355**	**4 - 6 Pk Volume**	259	241	0	0	**500**
Pk Hr Factor	0.782	0.659	0.000	0.000	**0.752**	**Pk Hr Factor**	0.852	0.814	0.000	0.000	**0.933**

Prepared by NDS/ATD

VOLUME

Santa Fe Dr Bet. Eucalyptus Ave & Olive Ave

Day: Tuesday
Date: 9/25/2018

City: Winton
Project #: CA18_7325_004

DAILY TOTALS	NB	SB	EB	WB	Total
	2,727	2,737	0	0	5,464

AM Period	NB		SB		EB	WB	TOTAL	
00:00	2		7				9	
00:15	4		8				12	
00:30	2		5				7	
00:45	4	12	3	23			7	35
01:00	1		5				6	
01:15	5		3				8	
01:30	3		2				5	
01:45	0	9	0	10			0	19
02:00	4		3				7	
02:15	6		4				10	
02:30	2		3				5	
02:45	5	17	3	13			8	30
03:00	3		4				7	
03:15	7		1				8	
03:30	15		3				18	
03:45	5	30	3	11			8	41
04:00	10		1				11	
04:15	20		4				24	
04:30	28		8				36	
04:45	26	84	7	20			33	104
05:00	46		5				51	
05:15	51		9				60	
05:30	82		10				92	
05:45	62	241	9	33			71	274
06:00	74		18				92	
06:15	72		15				87	
06:30	72		24				96	
06:45	44	262	20	77			64	339
07:00	59		30				89	
07:15	50		52				102	
07:30	68		43				111	
07:45	49	226	49	174			98	400
08:00	57		30				87	
08:15	40		38				78	
08:30	35		42				77	
08:45	40	172	37	147			77	319
09:00	37		29				66	
09:15	27		21				48	
09:30	24		26				50	
09:45	31	119	15	91			46	210
10:00	34		28				62	
10:15	29		33				62	
10:30	38		35				73	
10:45	24	125	28	124			52	249
11:00	27		28				55	
11:15	31		57				88	
11:30	22		35				57	
11:45	30	110	32	152			62	262
TOTALS		1407		875				2282
SPLIT %		61.7%		38.3%				41.8%

PM Period	NB		SB		EB	WB	TOTAL	
12:00	50		38				88	
12:15	37		29				66	
12:30	30		33				63	
12:45	39	156	36	136			75	292
13:00	32		34				66	
13:15	29		33				62	
13:30	32		38				70	
13:45	34	127	38	143			72	270
14:00	36		45				81	
14:15	36		36				72	
14:30	49		48				97	
14:45	49	170	58	187			107	357
15:00	40		53				93	
15:15	45		71				116	
15:30	44		61				105	
15:45	38	167	63	248			101	415
16:00	42		79				121	
16:15	44		86				130	
16:30	40		93				133	
16:45	55	181	65	323			120	504
17:00	50		82				132	
17:15	48		73				121	
17:30	40		67				107	
17:45	51	189	64	286			115	475
18:00	27		61				88	
18:15	28		61				89	
18:30	25		49				74	
18:45	18	98	43	214			61	312
19:00	27		32				59	
19:15	20		43				63	
19:30	18		35				53	
19:45	15	80	23	133			38	213
20:00	14		13				27	
20:15	16		17				33	
20:30	18		20				38	
20:45	6	54	22	72			28	126
21:00	16		13				29	
21:15	14		14				28	
21:30	12		12				24	
21:45	5	47	10	49			15	96
22:00	10		11				21	
22:15	6		12				18	
22:30	6		12				18	
22:45	7	29	11	46			18	75
23:00	6		12				18	
23:15	3		6				9	
23:30	6		5				11	
23:45	7	22	2	25			9	47
TOTALS		1320		1862				3182
SPLIT %		41.5%		58.5%				58.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	2,727	2,737	0	0	5,464

	NB	SB	EB	WB	TOTAL		NB	SB	EB	WB	TOTAL
AM Peak Hour	05:30	07:00			07:00	PM Peak Hour	16:30	16:15			16:15
AM Pk Volume	290	174			400	PM Pk Volume	193	326			515
Pk Hr Factor	0.884	0.837			0.901	Pk Hr Factor	0.877	0.876			0.968
7 - 9 Volume	398	321	0	0	719	4 - 6 Volume	370	609	0	0	979
7 - 9 Peak Hour	07:00	07:00			07:00	4 - 6 Peak Hour	16:30	16:15			16:15
7 - 9 Pk Volume	226	174	0	0	400	4 - 6 Pk Volume	193	326	0	0	515
Pk Hr Factor	0.831	0.837	0.000	0.000	0.901	Pk Hr Factor	0.877	0.876	0.000	0.000	0.968

Prepared by NDS/ATD

VOLUME

Santa Fe Dr Bet. Olive Ave & Walnut Ave

Day: Tuesday
Date: 9/25/2018

City: Winton
Project #: CA18_7325_005

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,581	2,601	5,182

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			7		1		8		12:00			39		51		90	
00:15			6		3		9		12:15			29		36		65	
00:30			4		2		6		12:30			28		34		62	
00:45			5	22	2	8	7	30	12:45			34	130	43	164	77	294
01:00			3		1		4		13:00			36		30		66	
01:15			2		4		6		13:15			26		26		52	
01:30			4		3		7		13:30			35		32		67	
01:45			0	9	0	8	0	17	13:45			34	131	32	120	66	251
02:00			3		2		5		14:00			45		35		80	
02:15			4		6		10		14:15			34		32		66	
02:30			3		3		6		14:30			40		58		98	
02:45			4	14	7	18	11	32	14:45			47	166	52	177	99	343
03:00			3		2		5		15:00			55		35		90	
03:15			2		7		9		15:15			61		44		105	
03:30			2		16		18		15:30			54		41		95	
03:45			2	9	3	28	5	37	15:45			55	225	39	159	94	384
04:00			2		7		9		16:00			70		49		119	
04:15			2		15		17		16:15			71		41		112	
04:30			7		23		30		16:30			82		44		126	
04:45			8	19	23	68	31	87	16:45			62	285	59	193	121	478
05:00			6		37		43		17:00			71		52		123	
05:15			9		44		53		17:15			75		46		121	
05:30			15		70		85		17:30			69		44		113	
05:45			9	39	49	200	58	239	17:45			51	266	54	196	105	462
06:00			15		63		78		18:00			51		32		83	
06:15			18		52		70		18:15			59		31		90	
06:30			21		57		78		18:30			48		24		72	
06:45			18	72	38	210	56	282	18:45			36	194	17	104	53	298
07:00			32		46		78		19:00			33		26		59	
07:15			61		49		110		19:15			40		19		59	
07:30			37		67		104		19:30			33		18		51	
07:45			47	177	42	204	89	381	19:45			23	129	16	79	39	208
08:00			31		48		79		20:00			13		13		26	
08:15			40		35		75		20:15			14		22		36	
08:30			39		34		73		20:30			19		18		37	
08:45			35	145	36	153	71	298	20:45			18	64	9	62	27	126
09:00			32		34		66		21:00			11		15		26	
09:15			23		29		52		21:15			12		12		24	
09:30			30		17		47		21:30			11		13		24	
09:45			16	101	32	112	48	213	21:45			12	46	7	47	19	93
10:00			26		34		60		22:00			7		14		21	
10:15			31		30		61		22:15			12		3		15	
10:30			36		28		64		22:30			11		6		17	
10:45			29	122	24	116	53	238	22:45			11	41	11	34	22	75
11:00			34		33		67		23:00			9		6		15	
11:15			50		30		80		23:15			8		2		10	
11:30			35		20		55		23:30			5		6		11	
11:45			32	151	33	116	65	267	23:45			2	24	11	25	13	49
TOTALS				880		1241		**2121**	**TOTALS**				1701		1360		**3061**
SPLIT %				41.5%		58.5%		**40.9%**	**SPLIT %**				55.6%		44.4%		**59.1%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,581	2,601	5,182

	NB	SB	EB	WB	TOTAL		NB	SB	EB	WB	TOTAL
AM Peak Hour			07:00	05:30	**07:15**	**PM Peak Hour**			16:30	16:30	**16:30**
AM Pk Volume			177	234	**382**	**PM Pk Volume**			290	201	**491**
Pk Hr Factor			0.725	0.836	**0.868**	**Pk Hr Factor**			0.884	0.852	**0.974**
7 - 9 Volume	0	0	322	357	**679**	**4 - 6 Volume**	0	0	551	389	**940**
7 - 9 Peak Hour			07:00	07:15	**07:15**	**4 - 6 Peak Hour**			16:30	16:30	**16:30**
7 - 9 Pk Volume	0	0	177	206	**382**	**4 - 6 Pk Volume**	0	0	290	201	**491**
Pk Hr Factor	0.000	0.000	0.725	0.769	**0.868**	**Pk Hr Factor**	0.000	0.000	0.884	0.852	**0.974**

Prepared by NDS/ATD

VOLUME

Santa Fe Dr Bet. Walnut Ave & Winton Way

Day: Tuesday
Date: 9/25/2018

City: Winton
Project #: CA18_7325_006

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	4,344	4,376	8,720

AM Period	NB	SB	EB		WB		TOTAL	
00:00			12		6		18	
00:15			10		12		22	
00:30			5		1		6	
00:45			5	32	4	23	9	55
01:00			2		1		3	
01:15			5		3		8	
01:30			3		4		7	
01:45			3	13	5	13	8	26
02:00			6		4		10	
02:15			1		1		2	
02:30			3		3		6	
02:45			4	14	7	15	11	29
03:00			4		2		6	
03:15			6		10		16	
03:30			4		12		16	
03:45			2	16	5	29	7	45
04:00			4		12		16	
04:15			10		22		32	
04:30			9		23		32	
04:45			24	47	25	82	49	129
05:00			18		31		49	
05:15			14		43		57	
05:30			31		56		87	
05:45			26	89	53	183	79	272
06:00			31		58		89	
06:15			36		55		91	
06:30			48		57		105	
06:45			47	162	46	216	93	378
07:00			54		58		112	
07:15			95		63		158	
07:30			106		81		187	
07:45			92	347	76	278	168	625
08:00			50		62		112	
08:15			56		46		102	
08:30			71		51		122	
08:45			71	248	48	207	119	455
09:00			59		48		107	
09:15			39		29		68	
09:30			56		45		101	
09:45			60	214	51	173	111	387
10:00			48		35		83	
10:15			41		55		96	
10:30			53		57		110	
10:45			52	194	40	187	92	381
11:00			45		63		108	
11:15			58		59		117	
11:30			35		51		86	
11:45			56	194	52	225	108	419
TOTALS				1570		1631		**3201**
SPLIT %				49.0%		51.0%		**36.7%**

PM Period	NB	SB	EB		WB		TOTAL	
12:00			45		51		96	
12:15			60		64		124	
12:30			65		66		131	
12:45			66	236	57	238	123	474
13:00			48		59		107	
13:15			58		55		113	
13:30			50		53		103	
13:45			55	211	66	233	121	444
14:00			62		92		154	
14:15			79		74		153	
14:30			85		87		172	
14:45			83	309	78	331	161	640
15:00			85		84		169	
15:15			83		92		175	
15:30			90		73		163	
15:45			85	343	73	322	158	665
16:00			99		70		169	
16:15			103		84		187	
16:30			102		78		180	
16:45			114	418	86	318	200	736
17:00			94		100		194	
17:15			101		104		205	
17:30			99		78		177	
17:45			71	365	73	355	144	720
18:00			74		75		149	
18:15			64		64		128	
18:30			77		69		146	
18:45			84	299	57	265	141	564
19:00			84		78		162	
19:15			80		56		136	
19:30			49		62		111	
19:45			38	251	56	252	94	503
20:00			45		48		93	
20:15			41		40		81	
20:30			31		44		75	
20:45			34	151	31	163	65	314
21:00			24		39		63	
21:15			20		40		60	
21:30			23		28		51	
21:45			23	90	27	134	50	224
22:00			12		26		38	
22:15			14		15		29	
22:30			10		17		27	
22:45			9	45	16	74	25	119
23:00			21		15		36	
23:15			16		15		31	
23:30			12		18		30	
23:45			7	56	12	60	19	116
TOTALS				2774		2745		**5519**
SPLIT %				50.3%		49.7%		**63.3%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	4,344	4,376	8,720

	NB	SB	EB	WB	Total
AM Peak Hour			07:00	07:15	**07:00**
AM Pk Volume			347	282	**625**
Pk Hr Factor			0.818	0.870	**0.836**
7 - 9 Volume	0	0	595	485	**1080**
7 - 9 Peak Hour			07:00	07:15	**07:00**
7 - 9 Pk Volume	0	0	347	282	**625**
Pk Hr Factor	0.000	0.000	0.818	0.870	**0.836**

	NB	SB	EB	WB	Total
PM Peak Hour			16:00	16:30	**16:30**
PM Pk Volume			418	368	**779**
Pk Hr Factor			0.917	0.885	**0.950**
4 - 6 Volume	0	0	783	673	**1456**
4 - 6 Peak Hour			16:00	16:30	**16:30**
4 - 6 Pk Volume	0	0	418	368	**779**
Pk Hr Factor	0.000	0.000	0.917	0.885	**0.950**

Prepared by National Data & Surveying Services

CLASSIFICATION

Santa Fe Dr Bet. Winton Way & Shaffer Rd

Day: Tuesday
Date: 9/25/2018

City: Winton
Project #: CA18_7325_007

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	54	6	0	3	0	0	0	1	0	0	0	0	64
01:00	0	32	2	0	1	0	0	0	1	0	0	0	0	36
02:00	0	24	7	0	1	0	0	0	0	0	0	0	0	32
03:00	0	33	5	0	3	0	0	0	2	0	0	0	0	43
04:00	0	86	23	1	8	0	0	0	1	0	0	0	0	119
05:00	0	174	34	1	23	1	0	0	0	0	0	0	0	233
06:00	2	267	71	3	31	7	0	1	2	0	6	0	0	390
07:00	3	509	92	3	57	4	0	0	1	0	5	0	0	674
08:00	1	388	73	2	31	2	0	0	3	0	5	0	0	505
09:00	4	371	88	3	36	2	0	1	0	0	4	0	0	509
10:00	4	357	68	4	43	4	1	2	1	0	4	0	0	488
11:00	4	358	106	4	41	3	0	2	1	0	3	0	0	522
12:00 PM	1	451	75	3	42	2	0	2	1	0	3	0	0	580
13:00	3	378	83	2	42	2	0	1	4	0	0	1	0	516
14:00	4	505	113	3	50	2	1	1	2	0	3	0	0	684
15:00	4	546	117	4	73	6	0	1	5	0	1	0	0	757
16:00	1	606	117	4	53	2	0	2	0	0	1	0	0	786
17:00	3	619	102	1	38	0	0	2	3	0	0	0	0	768
18:00	2	485	81	0	41	0	0	2	3	0	1	0	0	615
19:00	4	432	64	2	27	1	0	0	1	0	0	0	0	531
20:00	0	297	31	0	28	0	0	0	2	0	0	0	0	358
21:00	1	207	28	0	8	0	0	0	0	0	0	0	0	244
22:00	2	136	15	0	7	1	0	0	1	0	0	0	0	162
23:00	1	106	8	0	6	0	0	1	0	0	0	0	0	122
Totals	44	7421	1409	40	693	39	2	18	35		36	1		9738
% of Totals	0%	76%	14%	0%	7%	0%	0%	0%	0%		0%	0%		100%

	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
AM Volumes	18	2653	575	21	278	23	1	6	13	0	27	0	0	3615
% AM	0%	27%	6%	0%	3%	0%	0%	0%	0%		0%			37%
AM Peak Hour	09:00	07:00	11:00	10:00	07:00	06:00	10:00	10:00	08:00		06:00			07:00
Volume	4	509	106	4	57	7	1	2	3		6			674
PM Volumes	26	4768	834	19	415	16	1	12	22	0	9	1	0	6123
% PM	0%	49%	9%	0%	4%	0%	0%	0%	0%		0%	0%		63%
PM Peak Hour	14:00	17:00	15:00	15:00	15:00	15:00	14:00	12:00	15:00		12:00	13:00		16:00
Volume	4	619	117	4	73	6	1	2	5		3	1		786

Directional Peak Periods All Classes	AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes	
	Volume	%	Volume	%	Volume	%	Volume	%
	1179	12%	1096	11%	1554	16%	5909	61%

Classification Definitions

1 Motorcycles	**4** Buses	**7** > =4-Axle Single Units	**10** >=6-Axle Single Trailers	**13** >=7-Axle Multi-Trailers
2 Passenger Cars	**5** 2-Axle, 6-Tire Single Units	**8** <=4-Axle Single Trailers	**11** <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	**6** 3-Axle Single Units	**9** 5-Axle Single Trailers	**12** 6-Axle Multi-Trailers	

Prepared by NDS/ATD

Prepared by National Data & Surveying Services

VOLUME

Santa Fe Dr Bet. Winton Way & Shaffer Rd

Day: Tuesday
Date: 9/25/2018

City: Winton
Project #: CA18_7325_007

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	4,918	4,820	9,738

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00	0	0	9		11		20		12:00	0	0	71		77		148	
00:15	0	0	10		8		18		12:15	0	0	61		76		137	
00:30	0	0	2		8		10		12:30	0	0	77		66		143	
00:45	0	0	9	30	7	34	16	64	12:45	0	0	82	291	70	289	152	580
01:00	0	0	7		5		12		13:00	0	0	61		55		116	
01:15	0	0	4		3		7		13:15	0	0	57		68		125	
01:30	0	0	3		9		12		13:30	0	0	64		59		123	
01:45	0	0	2	16	3	20	5	36	13:45	0	0	71	253	81	263	152	516
02:00	0	0	4		6		10		14:00	0	0	63		86		149	
02:15	0	0	1		3		4		14:15	0	0	70		106		176	
02:30	0	0	4		5		9		14:30	0	0	84		84		168	
02:45	0	0	7	16	2	16	9	32	14:45	0	0	89	306	102	378	191	684
03:00	0	0	5		1		6		15:00	0	0	93		85		178	
03:15	0	0	6		9		15		15:15	0	0	93		114		207	
03:30	0	0	3		8		11		15:30	0	0	88		96		184	
03:45	0	0	5	19	6	24	11	43	15:45	0	0	100	374	88	383	188	757
04:00	0	0	8		9		17		16:00	0	0	85		104		189	
04:15	0	0	9		16		25		16:15	0	0	112		75		187	
04:30	0	0	16		18		34		16:30	0	0	104		105		209	
04:45	0	0	23	56	20	63	43	119	16:45	0	0	107	408	94	378	201	786
05:00	0	0	22		18		40		17:00	0	0	92		113		205	
05:15	0	0	20		26		46		17:15	0	0	95		118		213	
05:30	0	0	41		42		83		17:30	0	0	91		102		193	
05:45	0	0	30	113	34	120	64	233	17:45	0	0	63	341	94	427	157	768
06:00	0	0	36		43		79		18:00	0	0	81		91		172	
06:15	0	0	45		50		95		18:15	0	0	86		63		149	
06:30	0	0	70		44		114		18:30	0	0	82		69		151	
06:45	0	0	64	215	38	175	102	390	18:45	0	0	70	319	73	296	143	615
07:00	0	0	66		62		128		19:00	0	0	87		77		164	
07:15	0	0	110		72		182		19:15	0	0	78		61		139	
07:30	0	0	117		73		190		19:30	0	0	61		58		119	
07:45	0	0	99	392	75	282	174	674	19:45	0	0	47	273	62	258	109	531
08:00	0	0	64		51		115		20:00	0	0	53		58		111	
08:15	0	0	75		69		144		20:15	0	0	47		49		96	
08:30	0	0	85		37		122		20:30	0	0	40		37		77	
08:45	0	0	78	302	46	203	124	505	20:45	0	0	32	172	42	186	74	358
09:00	0	0	91		52		143		21:00	0	0	35		51		86	
09:15	0	0	67		37		104		21:15	0	0	24		37		61	
09:30	0	0	81		54		135		21:30	0	0	25		28		53	
09:45	0	0	65	304	62	205	127	509	21:45	0	0	20	104	24	140	44	244
10:00	0	0	57		55		112		22:00	0	0	20		38		58	
10:15	0	0	53		66		119		22:15	0	0	17		24		41	
10:30	0	0	75		74		149		22:30	0	0	11		20		31	
10:45	0	0	52	237	56	251	108	488	22:45	0	0	9	57	23	105	32	162
11:00	0	0	64		65		129		23:00	0	0	14		20		34	
11:15	0	0	79		60		139		23:15	0	0	14		18		32	
11:30	0	0	61		81		142		23:30	0	0	14		19		33	
11:45	0	0	61	265	51	257	112	522	23:45	0	0	13	55	10	67	23	122
TOTALS				1965		1650		**3615**	**TOTALS**				2953		3170		**6123**
SPLIT %				54.4%		45.6%		**37.1%**	**SPLIT %**				48.2%		51.8%		**62.9%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	4,918	4,820	9,738

AM Peak Hour			07:00	11:30	**07:00**	**PM Peak Hour**			16:15	16:30	**16:30**
AM Pk Volume			392	285	**674**	**PM Pk Volume**			415	430	**828**
Pk Hr Factor			0.838	0.880	**0.887**	**Pk Hr Factor**			0.926	0.911	**0.972**
7 - 9 Volume	0	0	694	485	**1179**	**4 - 6 Volume**	0	0	749	805	**1554**
7 - 9 Peak Hour			07:00	07:00	**07:00**	**4 - 6 Peak Hour**			16:15	16:30	**16:30**
7 - 9 Pk Volume	0	0	392	282	**674**	**4 - 6 Pk Volume**	0	0	415	430	**828**
Pk Hr Factor	0.000	0.000	0.838	0.940	**0.887**	**Pk Hr Factor**	0.000	0.000	0.926	0.911	**0.972**

Prepared by NDS/ATD

VOLUME

Olive Ave Bet. Vine Ave & Santa Fe Dr

Day: Tuesday
Date: 9/25/2018

City: Winton
Project #: CA18_7325_008

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	637	651	1,288

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			1		1		2		12:00			10		8		18	
00:15			5		1		6		12:15			2		7		9	
00:30			1		2		3		12:30			6		7		13	
00:45			3	10	0	4	3	14	12:45			11	29	8	30	19	59
01:00			0		1		1		13:00			6		2		8	
01:15			0		1		1		13:15			10		9		19	
01:30			2		1		3		13:30			5		10		15	
01:45			0	2	0	3	0	5	13:45			5	26	9	30	14	56
02:00			0		0		0		14:00			8		12		20	
02:15			2		3		5		14:15			6		7		13	
02:30			1		3		4		14:30			5		15		20	
02:45			2	5	3	9	5	14	14:45			8	27	18	52	26	79
03:00			1		1		2		15:00			13		15		28	
03:15			1		0		1		15:15			14		10		24	
03:30			3		4		7		15:30			11		14		25	
03:45			0	5	1	6	1	11	15:45			16	54	18	57	34	111
04:00			1		1		2		16:00			9		19		28	
04:15			2		3		5		16:15			10		14		24	
04:30			3		1		4		16:30			16		16		32	
04:45			2	8	2	7	4	15	16:45			19	54	13	62	32	116
05:00			8		3		11		17:00			9		9		18	
05:15			9		4		13		17:15			16		14		30	
05:30			15		8		23		17:30			12		13		25	
05:45			9	41	10	25	19	66	17:45			7	44	8	44	15	88
06:00			13		7		20		18:00			12		18		30	
06:15			13		2		15		18:15			11		13		24	
06:30			10		8		18		18:30			9		8		17	
06:45			11	47	13	30	24	77	18:45			11	43	8	47	19	90
07:00			12		5		17		19:00			12		13		25	
07:15			17		17		34		19:15			17		10		27	
07:30			16		17		33		19:30			8		10		18	
07:45			14	59	11	50	25	109	19:45			9	46	7	40	16	86
08:00			11		9		20		20:00			9		7		16	
08:15			9		9		18		20:15			3		6		9	
08:30			3		8		11		20:30			2		5		7	
08:45			6	29	5	31	11	60	20:45			4	18	6	24	10	42
09:00			6		4		10		21:00			3		3		6	
09:15			6		6		12		21:15			4		3		7	
09:30			3		2		5		21:30			3		3		6	
09:45			4	19	2	14	6	33	21:45			3	13	4	13	7	26
10:00			1		2		3		22:00			2		3		5	
10:15			5		4		9		22:15			6		5		11	
10:30			5		8		13		22:30			4		8		12	
10:45			5	16	3	17	8	33	22:45			2	14	5	21	7	35
11:00			4		9		13		23:00			1		1		2	
11:15			8		10		18		23:15			1		2		3	
11:30			3		4		7		23:30			3		2		5	
11:45			6	21	3	26	9	47	23:45			2	7	4	9	6	16
TOTALS				262		222		484	TOTALS				375		429		804
SPLIT %				54.1%		45.9%		37.6%	SPLIT %				46.6%		53.4%		62.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	637	651	1,288

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour			07:00	07:15	07:15	PM Peak Hour			16:30	15:45	15:45
AM Pk Volume			59	54	112	PM Pk Volume			60	67	118
Pk Hr Factor			0.868	0.794	0.824	Pk Hr Factor			0.789	0.882	0.868
7 - 9 Volume	0	0	88	81	169	4 - 6 Volume	0	0	98	106	204
7 - 9 Peak Hour			07:00	07:15	07:15	4 - 6 Peak Hour			16:30	16:00	16:00
7 - 9 Pk Volume	0	0	59	54	112	4 - 6 Pk Volume	0	0	60	62	116
Pk Hr Factor	0.000	0.000	0.868	0.794	0.824	Pk Hr Factor	0.000	0.000	0.789	0.816	0.906

Prepared by NDS/ATD

VOLUME

Olive Ave Bet. Santa Fe Dr & Winton Way

Day: Tuesday **City:** Winton
Date: 9/25/2018 **Project #:** CA18_7325_009

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	429	408	837

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			1		1		2		12:00			3		4		7	
00:15			3		0		3		12:15			3		9		12	
00:30			2		1		3		12:30			2		2		4	
00:45			1	7	0	2	1	9	12:45			6	14	2	17	8	31
01:00			1		1		2		13:00			4		2		6	
01:15			0		2		2		13:15			5		7		12	
01:30			1		1		2		13:30			4		4		8	
01:45			0	2	0	4	0	6	13:45			8	21	5	18	13	39
02:00			0		2		2		14:00			3		1		4	
02:15			1		1		2		14:15			7		4		11	
02:30			0		1		1		14:30			7		8		15	
02:45			1	2	1	5	2	7	14:45			10	27	4	17	14	44
03:00			0		1		1		15:00			10		9		19	
03:15			1		1		2		15:15			7		3		10	
03:30			0		1		1		15:30			11		6		17	
03:45			1	2	2	5	3	7	15:45			12	40	8	26	20	66
04:00			0		4		4		16:00			11		3		14	
04:15			1		4		5		16:15			12		3		15	
04:30			0		4		4		16:30			16		6		22	
04:45			1	2	4	16	5	18	16:45			16	55	2	14	18	69
05:00			0		5		5		17:00			10		6		16	
05:15			3		9		12		17:15			11		4		15	
05:30			1		13		14		17:30			13		7		20	
05:45			1	5	13	40	14	45	17:45			15	49	3	20	18	69
06:00			4		12		16		18:00			8		7		15	
06:15			4		9		13		18:15			11		5		16	
06:30			0		13		13		18:30			9		3		12	
06:45			2	10	10	44	12	54	18:45			8	36	6	21	14	57
07:00			1		8		9		19:00			8		8		16	
07:15			14		9		23		19:15			9		2		11	
07:30			10		7		17		19:30			11		7		18	
07:45			13	38	11	35	24	73	19:45			5	33	1	18	6	51
08:00			6		7		13		20:00			4		6		10	
08:15			3		11		14		20:15			1		0		1	
08:30			1		7		8		20:30			1		2		3	
08:45			3	13	6	31	9	44	20:45			6	12	1	9	7	21
09:00			4		1		5		21:00			2		2		4	
09:15			4		3		7		21:15			3		2		5	
09:30			5		4		9		21:30			3		2		5	
09:45			3	16	3	11	6	27	21:45			3	11	2	8	5	19
10:00			2		3		5		22:00			2		2		4	
10:15			1		4		5		22:15			2		5		7	
10:30			4		7		11		22:30			2		3		5	
10:45			1	8	2	16	3	24	22:45			2	8	2	12	4	20
11:00			3		3		6		23:00			2		0		2	
11:15			3		4		7		23:15			0		2		2	
11:30			4		4		8		23:30			1		2		3	
11:45			4	14	4	15	8	29	23:45			1	4	0	4	1	8
TOTALS				119		224		**343**	**TOTALS**				310		184		**494**
SPLIT %				34.7%		65.3%		**41.0%**	**SPLIT %**				62.8%		37.2%		**59.0%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	429	408	837

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour			07:15	05:15	**07:15**	**PM Peak Hour**			16:00	15:00	**15:45**
AM Pk Volume			43	47	**77**	**PM Pk Volume**			55	26	**71**
Pk Hr Factor			0.768	0.904	**0.802**	**Pk Hr Factor**			0.859	0.722	**0.807**
7 - 9 Volume	0	0	51	66	**117**	**4 - 6 Volume**	0	0	104	34	**138**
7 - 9 Peak Hour			07:15	07:30	**07:15**	**4 - 6 Peak Hour**			16:00	17:00	**16:15**
7 - 9 Pk Volume	0	0	43	36	**77**	**4 - 6 Pk Volume**	0	0	55	20	**71**
Pk Hr Factor	0.000	0.000	0.768	0.818	**0.802**	**Pk Hr Factor**	0.000	0.000	0.859	0.714	**0.807**

Prepared by NDS/ATD

VOLUME

Walnut Ave Bet. Vine Ave & Santa Fe Dr

Day: Tuesday
Date: 9/25/2018

City: Winton
Project #: CA18_7325_010

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	3,111	3,140	6,251

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			7		5		12		12:00			33		45		78	
00:15			8		5		13		12:15			35		41		76	
00:30			8		2		10		12:30			36		39		75	
00:45			7	30	5	17	12	47	12:45			38	142	30	155	68	297
01:00			5		3		8		13:00			31		29		60	
01:15			7		2		9		13:15			36		42		78	
01:30			5		1		6		13:30			34		33		67	
01:45			8	25	5	11	13	36	13:45			46	147	40	144	86	291
02:00			5		4		9		14:00			50		31		81	
02:15			4		6		10		14:15			51		60		111	
02:30			3		5		8		14:30			52		62		114	
02:45			3	15	6	21	9	36	14:45			51	204	63	216	114	420
03:00			3		15		18		15:00			70		46		116	
03:15			8		11		19		15:15			57		40		97	
03:30			4		7		11		15:30			63		52		115	
03:45			5	20	5	38	10	58	15:45			59	249	44	182	103	431
04:00			5		15		20		16:00			64		63		127	
04:15			8		22		30		16:15			64		48		112	
04:30			14		22		36		16:30			83		59		142	
04:45			22	49	25	84	47	133	16:45			82	293	63	233	145	526
05:00			15		15		30		17:00			67		58		125	
05:15			16		42		58		17:15			63		65		128	
05:30			24		62		86		17:30			62		59		121	
05:45			23	78	28	147	51	225	17:45			63	255	61	243	124	498
06:00			23		28		51		18:00			54		59		113	
06:15			22		35		57		18:15			57		53		110	
06:30			22		33		55		18:30			50		49		99	
06:45			26	93	28	124	54	217	18:45			50	211	49	210	99	421
07:00			37		46		83		19:00			58		60		118	
07:15			75		75		150		19:15			55		50		105	
07:30			79		97		176		19:30			38		33		71	
07:45			84	275	61	279	145	554	19:45			32	183	30	173	62	356
08:00			42		40		82		20:00			38		40		78	
08:15			43		38		81		20:15			36		39		75	
08:30			28		27		55		20:30			22		43		65	
08:45			33	146	28	133	61	279	20:45			31	127	18	140	49	267
09:00			31		26		57		21:00			24		26		50	
09:15			42		24		66		21:15			22		29		51	
09:30			32		32		64		21:30			20		24		44	
09:45			37	142	26	108	63	250	21:45			22	88	27	106	49	194
10:00			36		28		64		22:00			18		18		36	
10:15			36		29		65		22:15			14		20		34	
10:30			25		33		58		22:30			13		25		38	
10:45			37	134	24	114	61	248	22:45			8	53	15	78	23	131
11:00			17		45		62		23:00			8		11		19	
11:15			34		22		56		23:15			13		13		26	
11:30			28		40		68		23:30			9		11		20	
11:45			33	112	29	136	62	248	23:45			10	40	13	48	23	88
TOTALS				1119		1212		**2331**	**TOTALS**				1992		1928		**3920**
SPLIT %				48.0%		52.0%		**37.3%**	**SPLIT %**				50.8%		49.2%		**62.7%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	3,111	3,140	6,251

	NB	SB	EB	WB	TOTAL		NB	SB	EB	WB	TOTAL
AM Peak Hour			07:15	07:00	**07:00**	**PM Peak Hour**			16:15	16:30	**16:30**
AM Pk Volume			280	279	**554**	**PM Pk Volume**			296	245	**540**
Pk Hr Factor			0.833	0.719	**0.787**	**Pk Hr Factor**			0.892	0.942	**0.931**
7 - 9 Volume	0	0	421	412	**833**	**4 - 6 Volume**	0	0	548	476	**1024**
7 - 9 Peak Hour			07:15	07:00	**07:00**	**4 - 6 Peak Hour**			16:15	16:30	**16:30**
7 - 9 Pk Volume	0	0	280	279	**554**	**4 - 6 Pk Volume**	0	0	296	245	**540**
Pk Hr Factor	0.000	0.000	0.833	0.719	**0.787**	**Pk Hr Factor**	0.000	0.000	0.892	0.942	**0.931**

Prepared by NDS/ATD

VOLUME

Walnut Ave Bet. Santa Fe Dr & Winton Way

Day: Tuesday
Date: 9/25/2018

City: Winton
Project #: CA18_7325_011

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,077	1,772	3,849

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			8		4		12		12:00			20		21		41	
00:15			6		2		8		12:15			22		25		47	
00:30			6		1		7		12:30			13		16		29	
00:45			7	27	1	8	8	35	12:45			12	67	17	79	29	146
01:00			2		2		4		13:00			26		15		41	
01:15			6		0		6		13:15			12		23		35	
01:30			5		2		7		13:30			24		7		31	
01:45			5	18	3	7	8	25	13:45			35	97	14	59	49	156
02:00			3		3		6		14:00			49		10		59	
02:15			7		3		10		14:15			54		71		125	
02:30			3		1		4		14:30			36		48		84	
02:45			2	15	6	13	8	28	14:45			27	166	30	159	57	325
03:00			2		8		10		15:00			52		36		88	
03:15			4		7		11		15:15			44		19		63	
03:30			3		5		8		15:30			51		26		77	
03:45			2	11	6	26	8	37	15:45			36	183	25	106	61	289
04:00			4		11		15		16:00			44		27		71	
04:15			3		15		18		16:15			47		23		70	
04:30			10		19		29		16:30			49		25		74	
04:45			7	24	16	61	23	85	16:45			68	208	33	108	101	316
05:00			12		18		30		17:00			48		28		76	
05:15			12		35		47		17:15			45		32		77	
05:30			10		49		59		17:30			52		25		77	
05:45			18	52	24	126	42	178	17:45			35	180	35	120	70	300
06:00			26		21		47		18:00			31		21		52	
06:15			15		26		41		18:15			39		19		58	
06:30			8		23		31		18:30			31		19		50	
06:45			11	60	18	88	29	148	18:45			29	130	20	79	49	209
07:00			19		29		48		19:00			21		24		45	
07:15			58		63		121		19:15			38		24		62	
07:30			66		109		175		19:30			24		12		36	
07:45			92	235	64	265	156	500	19:45			32	115	10	70	42	185
08:00			25		14		39		20:00			28		18		46	
08:15			12		9		21		20:15			21		21		42	
08:30			10		14		24		20:30			11		11		22	
08:45			23	70	20	57	43	127	20:45			16	76	13	63	29	139
09:00			18		13		31		21:00			20		9		29	
09:15			19		8		27		21:15			12		6		18	
09:30			12		16		28		21:30			12		6		18	
09:45			12	61	14	51	26	112	21:45			12	56	8	29	20	85
10:00			26		15		41		22:00			13		9		22	
10:15			12		18		30		22:15			11		6		17	
10:30			14		16		30		22:30			4		12		16	
10:45			28	80	13	62	41	142	22:45			3	31	9	36	12	67
11:00			14		33		47		23:00			4		3		7	
11:15			30		8		38		23:15			8		5		13	
11:30			16		22		38		23:30			4		3		7	
11:45			32	92	20	83	52	175	23:45			7	23	6	17	13	40
TOTALS				745		847		**1592**	**TOTALS**				1332		925		**2257**
SPLIT %				46.8%		53.2%		**41.4%**	**SPLIT %**				59.0%		41.0%		**58.6%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,077	1,772	3,849

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour			07:15	07:00	**07:00**	**PM Peak Hour**			16:45	14:15	**14:15**
AM Pk Volume			241	265	**500**	**PM Pk Volume**			213	185	**354**
Pk Hr Factor			0.655	0.608	**0.714**	**Pk Hr Factor**			0.783	0.651	**0.708**
7 - 9 Volume	0	0	305	322	**627**	**4 - 6 Volume**	0	0	388	228	**616**
7 - 9 Peak Hour			07:15	07:00	**07:00**	**4 - 6 Peak Hour**			16:45	17:00	**16:45**
7 - 9 Pk Volume	0	0	241	265	**500**	**4 - 6 Pk Volume**	0	0	213	120	**331**
Pk Hr Factor	0.000	0.000	0.655	0.608	**0.714**	**Pk Hr Factor**	0.000	0.000	0.783	0.857	**0.819**

Prepared by NDS/ATD

VOLUME

Walnut Ave Bet. Winton Way & California St

Day: Tuesday
Date: 9/25/2018

City: Winton
Project #: CA18_7325_012

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,748	1,391	3,139

AM Period	NB		SB		EB		WB		TOTAL	
00:00					6		1		7	
00:15					3		0		3	
00:30					2		1		3	
00:45					3	14	3	5	6	19
01:00					1		1		2	
01:15					3		1		4	
01:30					3		2		5	
01:45					3	10	4	8	7	18
02:00					1		1		2	
02:15					3		0		3	
02:30					5		1		6	
02:45					3	12	1	3	4	15
03:00					0		3		3	
03:15					3		3		6	
03:30					5		3		8	
03:45					1	9	1	10	2	19
04:00					3		6		9	
04:15					5		2		7	
04:30					4		8		12	
04:45					7	19	9	25	16	44
05:00					10		10		20	
05:15					15		23		38	
05:30					20		17		37	
05:45					25	70	16	66	41	136
06:00					20		14		34	
06:15					20		14		34	
06:30					13		9		22	
06:45					7	60	13	50	20	110
07:00					10		13		23	
07:15					39		31		70	
07:30					57		43		100	
07:45					60	166	37	124	97	290
08:00					28		24		52	
08:15					20		17		37	
08:30					9		17		26	
08:45					16	73	15	73	31	146
09:00					8		10		18	
09:15					16		12		28	
09:30					9		8		17	
09:45					10	43	8	38	18	81
10:00					12		8		20	
10:15					11		13		24	
10:30					14		17		31	
10:45					16	53	8	46	24	99
11:00					16		19		35	
11:15					29		15		44	
11:30					14		16		30	
11:45					16	75	19	69	35	144
TOTALS						604		517		**1121**
SPLIT %						53.9%		46.1%		**35.7%**

PM Period	NB		SB		EB		WB		TOTAL	
12:00					25		17		42	
12:15					27		16		43	
12:30					19		12		31	
12:45					18	89	16	61	34	150
13:00					16		5		21	
13:15					16		10		26	
13:30					12		14		26	
13:45					0	44	0	29	0	73
14:00					35		14		49	
14:15					46		42		88	
14:30					32		42		74	
14:45					33	146	18	116	51	262
15:00					30		29		59	
15:15					31		28		59	
15:30					40		37		77	
15:45					30	131	32	126	62	257
16:00					42		18		60	
16:15					37		29		66	
16:30					41		36		77	
16:45					54	174	33	116	87	290
17:00					39		37		76	
17:15					41		32		73	
17:30					46		36		82	
17:45					32	158	22	127	54	285
18:00					21		21		42	
18:15					35		25		60	
18:30					35		24		59	
18:45					26	117	22	92	48	209
19:00					30		18		48	
19:15					29		21		50	
19:30					31		16		47	
19:45					23	113	23	78	46	191
20:00					25		15		40	
20:15					18		17		35	
20:30					19		9		28	
20:45					13	75	10	51	23	126
21:00					15		18		33	
21:15					13		7		20	
21:30					13		6		19	
21:45					11	52	6	37	17	89
22:00					8		6		14	
22:15					10		4		14	
22:30					8		10		18	
22:45					3	29	9	29	12	58
23:00					6		6		12	
23:15					5		2		7	
23:30					2		1		3	
23:45					3	16	3	12	6	28
TOTALS						1144		874		**2018**
SPLIT %						56.7%		43.3%		**64.3%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,748	1,391	3,139

	NB	SB	EB	WB	Total
AM Peak Hour			07:15	07:15	**07:15**
AM Pk Volume			184	135	**319**
Pk Hr Factor			0.767	0.785	**0.798**
7 - 9 Volume	0	0	239	197	**436**
7 - 9 Peak Hour			07:15	07:15	**07:15**
7 - 9 Pk Volume	0	0	184	135	**319**
Pk Hr Factor	0.000	0.000	0.767	0.785	**0.798**

	NB	SB	EB	WB	Total
PM Peak Hour			16:45	16:30	**16:45**
PM Pk Volume			180	138	**318**
Pk Hr Factor			0.833	0.932	**0.914**
4 - 6 Volume	0	0	332	243	**575**
4 - 6 Peak Hour			16:45	16:30	**16:45**
4 - 6 Pk Volume	0	0	180	138	**318**
Pk Hr Factor	0.000	0.000	0.833	0.932	**0.914**

Prepared by NDS/ATD

VOLUME

Almond Ave Bet. Cypress Ave & Winton Way

Day: Tuesday
Date: 9/25/2018

City: Winton
Project #: CA18_7325_013

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,200	1,071	2,271

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			3		2		5		12:00			27		11		38	
00:15			2		4		6		12:15			26		11		37	
00:30			7		1		8		12:30			9		5		14	
00:45			3	15	1	8	4	23	12:45			13	75	6	33	19	108
01:00			3		0		3		13:00			14		13		27	
01:15			1		0		1		13:15			8		8		16	
01:30			1		0		1		13:30			7		14		21	
01:45			0	5	1	1	1	6	13:45			19	48	11	46	30	94
02:00			1		1		2		14:00			13		28		41	
02:15			1		2		3		14:15			25		37		62	
02:30			0		2		2		14:30			22		23		45	
02:45			0	2	3	8	3	10	14:45			23	83	28	116	51	199
03:00			0		6		6		15:00			58		18		76	
03:15			0		4		4		15:15			14		21		35	
03:30			1		3		4		15:30			28		16		44	
03:45			0	1	7	20	7	21	15:45			35	135	23	78	58	213
04:00			0		5		5		16:00			35		14		49	
04:15			2		7		9		16:15			27		28		55	
04:30			1		13		14		16:30			32		15		47	
04:45			1	4	4	29	5	33	16:45			43	137	12	69	55	206
05:00			5		8		13		17:00			32		23		55	
05:15			3		21		24		17:15			17		17		34	
05:30			2		22		24		17:30			23		17		40	
05:45			4	14	20	71	24	85	17:45			28	100	21	78	49	178
06:00			6		11		17		18:00			40		24		64	
06:15			3		13		16		18:15			27		9		36	
06:30			4		11		15		18:30			8		13		21	
06:45			6	19	13	48	19	67	18:45			16	91	6	52	22	143
07:00			18		18		36		19:00			12		13		25	
07:15			23		28		51		19:15			13		9		22	
07:30			61		65		126		19:30			12		8		20	
07:45			49	151	47	158	96	309	19:45			7	44	11	41	18	85
08:00			24		10		34		20:00			5		9		14	
08:15			16		6		22		20:15			3		10		13	
08:30			15		8		23		20:30			7		5		12	
08:45			8	63	8	32	16	95	20:45			9	24	4	28	13	52
09:00			14		1		15		21:00			3		6		9	
09:15			5		3		8		21:15			5		5		10	
09:30			11		7		18		21:30			6		7		13	
09:45			9	39	12	23	21	62	21:45			3	17	1	19	4	36
10:00			11		8		19		22:00			5		1		6	
10:15			11		11		22		22:15			4		2		6	
10:30			12		9		21		22:30			2		5		7	
10:45			7	41	11	39	18	80	22:45			2	13	2	10	4	23
11:00			14		12		26		23:00			3		1		4	
11:15			11		16		27		23:15			4		4		8	
11:30			10		11		21		23:30			4		0		4	
11:45			31	66	20	59	51	125	23:45			2	13	0	5	2	18
TOTALS				420		496		916	TOTALS				780		575		1355
SPLIT %				45.9%		54.1%		40.3%	SPLIT %				57.6%		42.4%		59.7%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,200	1,071	2,271

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour			07:15	07:00	07:00	PM Peak Hour			16:00	14:00	14:15
AM Pk Volume			157	158	309	PM Pk Volume			137	116	234
Pk Hr Factor			0.643	0.608	0.613	Pk Hr Factor			0.797	0.784	0.770
7 - 9 Volume	0	0	214	190	404	4 - 6 Volume	0	0	237	147	384
7 - 9 Peak Hour			07:15	07:00	07:00	4 - 6 Peak Hour			16:00	16:15	16:15
7 - 9 Pk Volume	0	0	157	158	309	4 - 6 Pk Volume	0	0	137	78	212
Pk Hr Factor	0.000	0.000	0.643	0.608	0.613	Pk Hr Factor	0.000	0.000	0.797	0.696	0.964

Prepared by NDS/ATD

VOLUME

Gertrude Ave Bet. Cypress Ave & Winton Way

Day: Tuesday **City:** Winton
Date: 9/25/2018 **Project #:** CA18_7325_014

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,479	1,384	2,863

AM Period	NB		SB		EB		WB		TOTAL	
00:00					3		1		4	
00:15					1		3		4	
00:30					0		2		2	
00:45					1	5	1	7	2	12
01:00					2		1		3	
01:15					2		0		2	
01:30					1		1		2	
01:45					1	6	2	4	3	10
02:00					1		0		1	
02:15					0		1		1	
02:30					2		1		3	
02:45					3	6	0	2	3	8
03:00					1		0		1	
03:15					3		0		3	
03:30					4		1		5	
03:45					2	10	0	1	2	11
04:00					2		1		3	
04:15					3		1		4	
04:30					4		0		4	
04:45					6	15	2	4	8	19
05:00					11		3		14	
05:15					4		2		6	
05:30					6		6		12	
05:45					12	33	3	14	15	47
06:00					11		6		17	
06:15					9		6		15	
06:30					16		4		20	
06:45					12	48	17	33	29	81
07:00					28		21		49	
07:15					34		40		74	
07:30					58		54		112	
07:45					54	174	24	139	78	313
08:00					18		16		34	
08:15					10		8		18	
08:30					12		11		23	
08:45					14	54	13	48	27	102
09:00					12		6		18	
09:15					9		11		20	
09:30					11		8		19	
09:45					14	46	7	32	21	78
10:00					13		6		19	
10:15					12		12		24	
10:30					10		11		21	
10:45					21	56	10	39	31	95
11:00					14		47		61	
11:15					17		50		67	
11:30					12		14		26	
11:45					50	93	11	122	61	215
TOTALS						546		445		**991**
SPLIT %						55.1%		44.9%		**34.6%**

PM Period	NB		SB		EB		WB		TOTAL	
12:00					72		13		85	
12:15					33		21		54	
12:30					16		15		31	
12:45					14	135	24	73	38	208
13:00					11		20		31	
13:15					12		13		25	
13:30					20		11		31	
13:45					14	57	20	64	34	121
14:00					22		16		38	
14:15					34		17		51	
14:30					36		29		65	
14:45					28	120	41	103	69	223
15:00					61		33		94	
15:15					20		36		56	
15:30					20		34		54	
15:45					16	117	23	126	39	243
16:00					21		23		44	
16:15					24		32		56	
16:30					31		44		75	
16:45					25	101	33	132	58	233
17:00					30		34		64	
17:15					28		32		60	
17:30					46		28		74	
17:45					23	127	35	129	58	256
18:00					47		22		69	
18:15					26		32		58	
18:30					22		16		38	
18:45					19	114	21	91	40	205
19:00					21		25		46	
19:15					17		25		42	
19:30					20		23		43	
19:45					13	71	24	97	37	168
20:00					20		21		41	
20:15					14		15		29	
20:30					9		9		18	
20:45					7	50	18	63	25	113
21:00					8		11		19	
21:15					14		7		21	
21:30					4		9		13	
21:45					3	29	8	35	11	64
22:00					3		8		11	
22:15					0		2		2	
22:30					2		5		7	
22:45					3	8	4	19	7	27
23:00					1		2		3	
23:15					1		2		3	
23:30					2		2		4	
23:45					0	4	1	7	1	11
TOTALS						933		939		**1872**
SPLIT %						49.8%		50.2%		**65.4%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,479	1,384	2,863

	NB	SB	EB	WB	TOTAL		NB	SB	EB	WB	TOTAL
AM Peak Hour			07:00	07:00	**07:00**	**PM Peak Hour**			14:15	14:45	**14:30**
AM Pk Volume			174	139	**313**	**PM Pk Volume**			159	144	**284**
Pk Hr Factor			0.750	0.644	**0.699**	**Pk Hr Factor**			0.652	0.878	**0.755**
7 - 9 Volume	0	0	228	187	**415**	**4 - 6 Volume**	0	0	228	261	**489**
7 - 9 Peak Hour			07:00	07:00	**07:00**	**4 - 6 Peak Hour**			16:45	16:15	**16:30**
7 - 9 Pk Volume	0	0	174	139	**313**	**4 - 6 Pk Volume**	0	0	129	143	**257**
Pk Hr Factor	0.000	0.000	0.750	0.644	**0.699**	**Pk Hr Factor**	0.000	0.000	0.701	0.813	**0.857**

Prepared by NDS/ATD

VOLUME

California St Bet. Santa Fe Dr & Walnut Ave

Day: Tuesday
Date: 9/25/2018

City: Winton
Project #: CA18_7325_015

DAILY TOTALS	NB	SB	EB	WB	Total
	1,214	1,344	0	0	2,558

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	0		2				2		**12:00**	16		20				36	
00:15	3		3				6		**12:15**	12		14				26	
00:30	2		2				4		**12:30**	12		17				29	
00:45	1	6	3	10			4	16	**12:45**	14	54	12	63			26	117
01:00	3		2				5		**13:00**	16		18				34	
01:15	2		5				7		**13:15**	6		12				18	
01:30	3		1				4		**13:30**	15		18				33	
01:45	3	11	1	9			4	20	**13:45**	17	54	13	61			30	115
02:00	1		0				1		**14:00**	24		18				42	
02:15	3		3				6		**14:15**	42		22				64	
02:30	3		3				6		**14:30**	31		32				63	
02:45	2	9	1	7			3	16	**14:45**	18	115	31	103			49	218
03:00	2		1				3		**15:00**	23		23				46	
03:15	1		3				4		**15:15**	33		26				59	
03:30	3		3				6		**15:30**	29		19				48	
03:45	0	6	4	11			4	17	**15:45**	29	114	22	90			51	204
04:00	3		3				6		**16:00**	23		26				49	
04:15	3		3				6		**16:15**	17		27				44	
04:30	4		7				11		**16:30**	23		27				50	
04:45	5	15	3	16			8	31	**16:45**	24	87	35	115			59	202
05:00	7		6				13		**17:00**	40		34				74	
05:15	7		7				14		**17:15**	23		27				50	
05:30	7		11				18		**17:30**	22		29				51	
05:45	12	33	10	34			22	67	**17:45**	18	103	23	113			41	216
06:00	11		6				17		**18:00**	19		28				47	
06:15	14		10				24		**18:15**	22		33				55	
06:30	8		11				19		**18:30**	24		28				52	
06:45	7	40	21	48			28	88	**18:45**	19	84	22	111			41	195
07:00	9		14				23		**19:00**	21		36				57	
07:15	18		20				38		**19:15**	21		18				39	
07:30	33		20				53		**19:30**	17		22				39	
07:45	30	90	15	69			45	159	**19:45**	22	81	24	100			46	181
08:00	18		21				39		**20:00**	12		16				28	
08:15	12		14				26		**20:15**	21		18				39	
08:30	15		21				36		**20:30**	11		15				26	
08:45	13	58	20	76			33	134	**20:45**	12	56	15	64			27	120
09:00	6		16				22		**21:00**	15		8				23	
09:15	13		22				35		**21:15**	6		11				17	
09:30	9		19				28		**21:30**	6		9				15	
09:45	3	31	15	72			18	103	**21:45**	9	36	8	36			17	72
10:00	6		13				19		**22:00**	10		4				14	
10:15	15		14				29		**22:15**	7		8				15	
10:30	12		10				22		**22:30**	12		6				18	
10:45	11	44	12	49			23	93	**22:45**	3	32	6	24			9	56
11:00	4		14				18		**23:00**	7		4				11	
11:15	9		14				23		**23:15**	3		1				4	
11:30	17		15				32		**23:30**	2		2				4	
11:45	11	41	12	55			23	96	**23:45**	2	14	1	8			3	22
TOTALS		384		456				**840**	**TOTALS**		830		888				**1718**
SPLIT %		45.7%		54.3%				**32.8%**	**SPLIT %**		48.3%		51.7%				**67.2%**

DAILY TOTALS	NB	SB	EB	WB	Total
	1,214	1,344	0	0	2,558

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour	07:15	08:30			**07:15**	**PM Peak Hour**	14:00	16:45			**16:45**
AM Pk Volume	99	79			**175**	**PM Pk Volume**	115	125			**234**
Pk Hr Factor	0.750	0.898			**0.825**	**Pk Hr Factor**	0.685	0.893			**0.791**
7 - 9 Volume	148	145	0	0	**293**	**4 - 6 Volume**	190	228	0	0	**418**
7 - 9 Peak Hour	07:15	07:15			**07:15**	**4 - 6 Peak Hour**	16:30	16:45			**16:45**
7 - 9 Pk Volume	99	76	0	0	**175**	**4 - 6 Pk Volume**	110	125	0	0	**234**
Pk Hr Factor	0.750	0.905	0.000	0.000	**0.825**	**Pk Hr Factor**	0.688	0.893	0.000	0.000	**0.791**

Prepared by NDS/ATD

VOLUME

Shaffer Rd Bet. Walnut Ave & Santa Fe Dr

Day: Tuesday
Date: 9/25/2018

City: Winton
Project #: CA18_7325_016

DAILY TOTALS	NB	SB	EB	WB	Total
	2,091	2,243	0	0	4,334

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	3		2				5		12:00	24		23				47	
00:15	1		3				4		12:15	26		24				50	
00:30	4		4				8		12:30	18		21				39	
00:45	5	13	6	15			11	28	12:45	23	91	30	98			53	189
01:00	5		2				7		13:00	30		17				47	
01:15	2		4				6		13:15	16		28				44	
01:30	0		2				2		13:30	22		20				42	
01:45	2	9	2	10			4	19	13:45	17	85	48	113			65	198
02:00	5		2				7		14:00	25		35				60	
02:15	6		0				6		14:15	17		33				50	
02:30	6		4				10		14:30	31		49				80	
02:45	1	18	0	6			1	24	14:45	36	109	33	150			69	259
03:00	3		3				6		15:00	34		40				74	
03:15	10		1				11		15:15	36		51				87	
03:30	11		2				13		15:30	39		60				99	
03:45	9	33	5	11			14	44	15:45	37	146	61	212			98	358
04:00	6		1				7		16:00	29		76				105	
04:15	18		5				23		16:15	29		70				99	
04:30	29		11				40		16:30	36		52				88	
04:45	22	75	7	24			29	99	16:45	28	122	57	255			85	377
05:00	27		7				34		17:00	44		47				91	
05:15	39		12				51		17:15	38		89				127	
05:30	68		10				78		17:30	44		54				98	
05:45	75	209	23	52			98	261	17:45	28	154	29	219			57	373
06:00	73		16				89		18:00	31		41				72	
06:15	64		17				81		18:15	39		31				70	
06:30	57		25				82		18:30	28		34				62	
06:45	32	226	20	78			52	304	18:45	26	124	38	144			64	268
07:00	21		33				54		19:00	23		24				47	
07:15	23		47				70		19:15	19		37				56	
07:30	30		87				117		19:30	22		43				65	
07:45	19	93	70	237			89	330	19:45	23	87	22	126			45	213
08:00	50		31				81		20:00	12		19				31	
08:15	23		33				56		20:15	18		15				33	
08:30	18		30				48		20:30	18		11				29	
08:45	18	109	24	118			42	227	20:45	19	67	4	49			23	116
09:00	19		12				31		21:00	19		12				31	
09:15	14		19				33		21:15	16		12				28	
09:30	14		23				37		21:30	16		5				21	
09:45	17	64	29	83			46	147	21:45	13	64	11	40			24	104
10:00	11		15				26		22:00	8		9				17	
10:15	17		20				37		22:15	10		9				19	
10:30	15		29				44		22:30	10		8				18	
10:45	22	65	17	81			39	146	22:45	5	33	1	27			6	60
11:00	21		22				43		23:00	6		6				12	
11:15	15		23				38		23:15	4		1				5	
11:30	17		18				35		23:30	3		0				3	
11:45	24	77	21	84			45	161	23:45	5	18	4	11			9	29
TOTALS		991		799				1790	TOTALS		1100		1444				2544
SPLIT %		55.4%		44.6%				41.3%	SPLIT %		43.2%		56.8%				58.7%

DAILY TOTALS	NB	SB	EB	WB	Total
	2,091	2,243	0	0	4,334

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour	05:30	07:00			07:15	PM Peak Hour	16:45	15:30			15:30
AM Pk Volume	280	237			357	PM Pk Volume	154	267			401
Pk Hr Factor	0.933	0.681			0.763	Pk Hr Factor	0.875	0.878			0.955
7 - 9 Volume	202	355	0	0	557	4 - 6 Volume	276	474	0	0	750
7 - 9 Peak Hour	07:15	07:00			07:15	4 - 6 Peak Hour	16:45	16:00			16:45
7 - 9 Pk Volume	122	237	0	0	357	4 - 6 Pk Volume	154	255	0	0	401
Pk Hr Factor	0.610	0.681	0.000	0.000	0.763	Pk Hr Factor	0.875	0.839	0.000	0.000	0.789

Prepared by NDS/ATD

VOLUME

Shaffer Rd Bet. Santa Fe Dr & Gertrude Ave

Day: Tuesday
Date: 9/25/2018

City: Winton
Project #: CA18_7325_017

DAILY TOTALS	NB	SB	EB	WB	Total
	4,550	4,763	0	0	9,313

AM Period	NB		SB		EB	WB	TOTAL	
00:00	10		5				15	
00:15	5		9				14	
00:30	8		4				12	
00:45	6	29	4	22			10	51
01:00	1		3				4	
01:15	2		5				7	
01:30	5		1				6	
01:45	2	10	2	11			4	21
02:00	4		4				8	
02:15	5		2				7	
02:30	5		4				9	
02:45	2	16	7	17			9	33
03:00	4		5				9	
03:15	10		8				18	
03:30	15		4				19	
03:45	11	40	6	23			17	63
04:00	5		12				17	
04:15	15		11				26	
04:30	22		8				30	
04:45	25	67	24	55			49	122
05:00	35		10				45	
05:15	31		20				51	
05:30	73		20				93	
05:45	71	210	28	78			99	288
06:00	72		22				94	
06:15	67		25				92	
06:30	54		30				84	
06:45	62	255	44	121			106	376
07:00	75		65				140	
07:15	104		84				188	
07:30	123		81				204	
07:45	127	429	66	296			193	725
08:00	44		60				104	
08:15	88		61				149	
08:30	46		60				106	
08:45	57	235	51	232			108	467
09:00	46		48				94	
09:15	36		46				82	
09:30	45		53				98	
09:45	42	169	47	194			89	363
10:00	52		59				111	
10:15	60		30				90	
10:30	61		46				107	
10:45	60	233	55	190			115	423
11:00	58		54				112	
11:15	52		59				111	
11:30	75		63				138	
11:45	48	233	73	249			121	482
TOTALS		1926		1488				**3414**
SPLIT %		56.4%		43.6%				**36.7%**

PM Period	NB		SB		EB	WB	TOTAL	
12:00	62		61				123	
12:15	73		56				129	
12:30	65		76				141	
12:45	90	290	61	254			151	544
13:00	53		69				122	
13:15	65		50				115	
13:30	46		70				116	
13:45	66	230	82	271			148	501
14:00	58		88				146	
14:15	71		98				169	
14:30	80		110				190	
14:45	79	288	92	388			171	676
15:00	70		91				161	
15:15	84		83				167	
15:30	84		90				174	
15:45	72	310	106	370			178	680
16:00	75		118				193	
16:15	77		110				187	
16:30	75		107				182	
16:45	80	307	117	452			197	759
17:00	83		130				213	
17:15	84		130				214	
17:30	84		122				206	
17:45	71	322	90	472			161	794
18:00	63		99				162	
18:15	52		97				149	
18:30	61		81				142	
18:45	56	232	84	361			140	593
19:00	59		96				155	
19:15	57		91				148	
19:30	50		70				120	
19:45	58	224	81	338			139	562
20:00	63		51				114	
20:15	45		40				85	
20:30	50		38				88	
20:45	38	196	31	160			69	356
21:00	37		37				74	
21:15	23		25				48	
21:30	21		21				42	
21:45	20	101	17	100			37	201
22:00	29		22				51	
22:15	23		20				43	
22:30	9		13				22	
22:45	20	81	15	70			35	151
23:00	14		13				27	
23:15	7		12				19	
23:30	15		4				19	
23:45	7	43	10	39			17	82
TOTALS		2624		3275				**5899**
SPLIT %		44.5%		55.5%				**63.3%**

DAILY TOTALS	NB	SB	EB	WB	Total
	4,550	4,763	0	0	9,313

	NB	SB	EB	WB	Total
AM Peak Hour	07:00	07:00			**07:00**
AM Pk Volume	429	296			**725**
Pk Hr Factor	0.844	0.881			**0.888**
7 - 9 Volume	664	528	0	0	**1192**
7 - 9 Peak Hour	07:00	07:00			**07:00**
7 - 9 Pk Volume	429	296	0	0	**725**
Pk Hr Factor	0.844	0.881	0.000	0.000	**0.888**

	NB	SB	EB	WB	Total
PM Peak Hour	16:45	16:45			**16:45**
PM Pk Volume	331	499			**830**
Pk Hr Factor	0.985	0.960			**0.970**
4 - 6 Volume	629	924	0	0	**1553**
4 - 6 Peak Hour	16:45	16:45			**16:45**
4 - 6 Pk Volume	331	499	0	0	**830**
Pk Hr Factor	0.985	0.960	0.000	0.000	**0.970**

Prepared by NDS/ATD

VOLUME

Chestnut Ln Bet. Walnut Ave & Santa Fe Dr

Day: Tuesday
Date: 9/25/2018

City: Winton
Project #: CA18_7325_018

DAILY TOTALS	NB	SB	EB	WB	Total
	393	432	0	0	825

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	0		0				0		12:00	8		17				25	
00:15	0		0				0		12:15	6		4				10	
00:30	1		1				2		12:30	1		2				3	
00:45	0	1	1	2			1	3	12:45	4	19	8	31			12	50
01:00	2		1				3		13:00	3		4				7	
01:15	1		1				2		13:15	2		5				7	
01:30	0		2				2		13:30	4		4				8	
01:45	1	4	0	4			1	8	13:45	15	24	4	17			19	41
02:00	0		0				0		14:00	15		9				24	
02:15	0		0				0		14:15	9		27				36	
02:30	0		1				1		14:30	10		18				28	
02:45	2	2	1	2			3	4	14:45	5	39	7	61			12	100
03:00	0		0				0		15:00	9		9				18	
03:15	0		1				1		15:15	5		7				12	
03:30	1		0				1		15:30	3		3				6	
03:45	0	1	0	1			0	2	15:45	13	30	6	25			19	55
04:00	1		1				2		16:00	9		7				16	
04:15	0		0				0		16:15	5		6				11	
04:30	0		1				1		16:30	7		3				10	
04:45	0	1	4	6			4	7	16:45	3	24	8	24			11	48
05:00	1		2				3		17:00	6		3				9	
05:15	1		1				2		17:15	10		6				16	
05:30	2		2				4		17:30	5		6				11	
05:45	3	7	2	7			5	14	17:45	7	28	11	26			18	54
06:00	1		3				4		18:00	6		6				12	
06:15	1		0				1		18:15	4		3				7	
06:30	1		2				3		18:30	2		4				6	
06:45	2	5	5	10			7	15	18:45	6	18	9	22			15	40
07:00	2		9				11		19:00	7		3				10	
07:15	14		9				23		19:15	3		8				11	
07:30	23		23				46		19:30	3		2				5	
07:45	19	58	18	59			37	117	19:45	6	19	1	14			7	33
08:00	10		11				21		20:00	2		3				5	
08:15	3		7				10		20:15	1		4				5	
08:30	5		1				6		20:30	3		1				4	
08:45	6	24	2	21			8	45	20:45	8	14	5	13			13	27
09:00	5		7				12		21:00	1		2				3	
09:15	4		2				6		21:15	4		3				7	
09:30	2		4				6		21:30	6		3				9	
09:45	1	12	2	15			3	27	21:45	1	12	4	12			5	24
10:00	5		6				11		22:00	1		4				5	
10:15	7		4				11		22:15	2		1				3	
10:30	3		5				8		22:30	1		0				1	
10:45	3	18	6	21			9	39	22:45	0	4	2	7			2	11
11:00	5		11				16		23:00	2		0				2	
11:15	4		5				9		23:15	2		1				3	
11:30	6		8				14		23:30	1		0				1	
11:45	9	24	5	29			14	53	23:45	0	5	2	3			2	8
TOTALS		157		177				**334**	**TOTALS**		236		255				**491**
SPLIT %		47.0%		53.0%				**40.5%**	**SPLIT %**		48.1%		51.9%				**59.5%**

DAILY TOTALS	NB	SB	EB	WB	Total
	393	432	0	0	825

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour	07:15	07:15			**07:15**	**PM Peak Hour**	13:45	14:00			**13:45**
AM Pk Volume	66	61			**127**	**PM Pk Volume**	49	61			**107**
Pk Hr Factor	0.717	0.663			**0.690**	**Pk Hr Factor**	0.817	0.565			**0.743**
7 - 9 Volume	82	80	0	0	**162**	**4 - 6 Volume**	52	50	0	0	**102**
7 - 9 Peak Hour	07:15	07:15			**07:15**	**4 - 6 Peak Hour**	17:00	17:00			**17:00**
7 - 9 Pk Volume	66	61	0	0	**127**	**4 - 6 Pk Volume**	28	26	0	0	**54**
Pk Hr Factor	0.717	0.663	0.000	0.000	**0.690**	**Pk Hr Factor**	0.700	0.591	0.000	0.000	**0.750**

Prepared by NDS/ATD

VOLUME

Camilla Dr Bet. Winton Way & Shaffer Rd

Day: Tuesday **City:** Winton

Date: 9/25/2018 **Project #:** CA18_7325_019

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,090	927	2,017

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			0		0		0		12:00			16		13		29	
00:15			1		0		1		12:15			13		10		23	
00:30			1		0		1		12:30			11		6		17	
00:45			0	2	1	1	1	3	12:45			17	57	11	40	28	97
01:00			1		0		1		13:00			14		8		22	
01:15			0		0		0		13:15			13		12		25	
01:30			1		1		2		13:30			11		15		26	
01:45			2	4	1	2	3	6	13:45			25	63	20	55	45	118
02:00			0		0		0		14:00			26		11		37	
02:15			0		1		1		14:15			23		13		36	
02:30			0		0		0		14:30			19		27		46	
02:45			0		0	1	0	1	14:45			22	90	20	71	42	161
03:00			2		0		2		15:00			20		23		43	
03:15			2		0		2		15:15			20		15		35	
03:30			0		0		0		15:30			23		12		35	
03:45			0	4	2	2	2	6	15:45			17	80	11	61	28	141
04:00			0		0		0		16:00			15		22		37	
04:15			2		0		2		16:15			16		15		31	
04:30			3		3		6		16:30			18		19		37	
04:45			5	10	1	4	6	14	16:45			20	69	12	68	32	137
05:00			3		2		5		17:00			20		26		46	
05:15			1		3		4		17:15			20		22		42	
05:30			9		5		14		17:30			20		19		39	
05:45			6	19	7	17	13	36	17:45			11	71	15	82	26	153
06:00			8		3		11		18:00			24		15		39	
06:15			6		10		16		18:15			14		13		27	
06:30			12		4		16		18:30			26		18		44	
06:45			17	43	17	34	34	77	18:45			23	87	10	56	33	143
07:00			25		16		41		19:00			14		17		31	
07:15			52		38		90		19:15			19		12		31	
07:30			43		54		97		19:30			11		11		22	
07:45			29	149	57	165	86	314	19:45			8	52	6	46	14	98
08:00			19		25		44		20:00			8		11		19	
08:15			11		10		21		20:15			12		8		20	
08:30			11		10		21		20:30			9		4		13	
08:45			17	58	14	59	31	117	20:45			12	41	4	27	16	68
09:00			9		5		14		21:00			9		10		19	
09:15			10		3		13		21:15			4		0		4	
09:30			19		11		30		21:30			4		3		7	
09:45			8	46	8	27	16	73	21:45			4	21	5	18	9	39
10:00			19		14		33		22:00			4		4		8	
10:15			13		16		29		22:15			1		3		4	
10:30			10		5		15		22:30			2		2		4	
10:45			12	54	10	45	22	99	22:45			3	10	2	11	5	21
11:00			8		7		15		23:00			3		2		5	
11:15			6		6		12		23:15			0		1		1	
11:30			16		9		25		23:30			2		1		3	
11:45			24	54	9	31	33	85	23:45			1	6	0	4	1	10
TOTALS				443		388		831	TOTALS				647		539		1186
SPLIT %				53.3%		46.7%		41.2%	SPLIT %				54.6%		45.4%		58.8%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,090	927	2,017

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour			07:00	07:15	07:15	PM Peak Hour			13:45	14:30	14:15
AM Pk Volume			149	174	317	PM Pk Volume			93	85	167
Pk Hr Factor			0.716	0.763	0.817	Pk Hr Factor			0.894	0.787	0.908
7 - 9 Volume	0	0	207	224	431	4 - 6 Volume	0	0	140	150	290
7 - 9 Peak Hour			07:00	07:15	07:15	4 - 6 Peak Hour			16:45	17:00	16:45
7 - 9 Pk Volume	0	0	149	174	317	4 - 6 Pk Volume	0	0	80	82	159
Pk Hr Factor	0.000	0.000	0.716	0.763	0.817	Pk Hr Factor	0.000	0.000	1.000	0.788	0.864

Prepared by NDS/ATD

VOLUME

Vine Ave Bet. Olive Ave & Walnut Ave

Day: Tuesday
Date: 9/25/2018

City: Winton
Project #: CA18_7325_020

DAILY TOTALS	NB	SB	EB	WB	Total
	578	542	0	0	1,120

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	2		1				3		12:00	9		10				19	
00:15	3		1				4		12:15	1		5				6	
00:30	2		0				2		12:30	5		7				12	
00:45	3	10	0	2			3	12	12:45	9	24	3	25			12	49
01:00	1		1				2		13:00	3		6				9	
01:15	0		0				0		13:15	10		9				19	
01:30	1		1				2		13:30	8		6				14	
01:45	0	2	0	2			0	4	13:45	6	27	2	23			8	50
02:00	1		1				2		14:00	9		14				23	
02:15	1		4				5		14:15	9		10				19	
02:30	3		2				5		14:30	7		12				19	
02:45	2	7	1	8			3	15	14:45	6	31	15	51			21	82
03:00	1		3				4		15:00	21		16				37	
03:15	0		1				1		15:15	12		8				20	
03:30	1		3				4		15:30	9		14				23	
03:45	0	2	1	8			1	10	15:45	17	59	14	52			31	111
04:00	1		2				3		16:00	14		13				27	
04:15	4		2				6		16:15	9		12				21	
04:30	1		7				8		16:30	8		12				20	
04:45	2	8	2	13			4	21	16:45	10	41	10	47			20	88
05:00	3		7				10		17:00	13		2				15	
05:15	6		6				12		17:15	13		5				18	
05:30	9		10				19		17:30	15		10				25	
05:45	7	25	11	34			18	59	17:45	11	52	10	27			21	79
06:00	7		5				12		18:00	13		9				22	
06:15	7		2				9		18:15	13		7				20	
06:30	3		7				10		18:30	7		7				14	
06:45	5	22	8	22			13	44	18:45	10	43	4	27			14	70
07:00	7		10				17		19:00	11		7				18	
07:15	15		14				29		19:15	13		7				20	
07:30	19		24				43		19:30	7		9				16	
07:45	19	60	8	56			27	116	19:45	9	40	9	32			18	72
08:00	12		4				16		20:00	4		2				6	
08:15	8		12				20		20:15	5		4				9	
08:30	1		6				7		20:30	3		5				8	
08:45	3	24	3	25			6	49	20:45	6	18	2	13			8	31
09:00	4		4				8		21:00	2		4				6	
09:15	1		4				5		21:15	2		1				3	
09:30	3		3				6		21:30	2		0				2	
09:45	5	13	3	14			8	27	21:45	2	8	3	8			5	16
10:00	3		2				5		22:00	4		4				8	
10:15	5		4				9		22:15	4		2				6	
10:30	6		5				11		22:30	7		6				13	
10:45	5	19	3	14			8	33	22:45	2	17	2	14			4	31
11:00	3		7				10		23:00	2		0				2	
11:15	7		6				13		23:15	1		1				2	
11:30	3		4				7		23:30	6		4				10	
11:45	4	17	0	17			4	34	23:45	0	9	3	8			3	17
TOTALS		209		215				**424**	**TOTALS**		369		327				**696**
SPLIT %		49.3%		50.7%				**37.9%**	**SPLIT %**		53.0%		47.0%				**62.1%**

DAILY TOTALS	NB	SB	EB	WB	Total
	578	542	0	0	1,120

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour	07:15	06:45			**07:00**	**PM Peak Hour**	15:00	14:15			**15:00**
AM Pk Volume	65	56			**116**	**PM Pk Volume**	59	53			**111**
Pk Hr Factor	0.855	0.583			**0.674**	**Pk Hr Factor**	0.702	0.828			**0.750**
7 - 9 Volume	84	81	0	0	**165**	**4 - 6 Volume**	93	74	0	0	**167**
7 - 9 Peak Hour	07:15	07:00			**07:00**	**4 - 6 Peak Hour**	17:00	16:00			**16:00**
7 - 9 Pk Volume	65	56	0	0	**116**	**4 - 6 Pk Volume**	52	47	0	0	**88**
Pk Hr Factor	0.855	0.583	0.000	0.000	**0.674**	**Pk Hr Factor**	0.867	0.904	0.000	0.000	**0.815**

Intersection	
Int Delay, s/veh	2.4

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	172	6	49	202	1	27	1	40	1	1	0
Future Vol, veh/h	0	172	6	49	202	1	27	1	40	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	0	195	7	56	230	1	31	1	45	1	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	231	0	0	202	0	0	542	542	199	565	545	231
Stage 1	-	-	-	-	-	-	199	199	-	343	343	-
Stage 2	-	-	-	-	-	-	343	343	-	222	202	-
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	1337	-	-	1370	-	-	451	447	842	436	446	808
Stage 1	-	-	-	-	-	-	803	736	-	672	637	-
Stage 2	-	-	-	-	-	-	672	637	-	780	734	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1337	-	-	1370	-	-	434	426	842	397	425	808
Mov Cap-2 Maneuver	-	-	-	-	-	-	434	426	-	397	425	-
Stage 1	-	-	-	-	-	-	803	736	-	672	607	-
Stage 2	-	-	-	-	-	-	639	607	-	737	734	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0	1.5	11.8	13.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	607	1370	-	-	1337	-	-	411
HCM Lane V/C Ratio	0.127	0.041	-	-	-	-	-	0.006
HCM Control Delay (s)	11.8	7.7	0	-	0	-	-	13.8
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	2	41	35	174	207	1
Future Vol, veh/h	2	41	35	174	207	1
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	8	8	2
Mvmt Flow	2	48	41	202	241	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	526	242	242	0	-	0
Stage 1	242	-	-	-	-	-
Stage 2	284	-	-	-	-	-
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	512	797	1324	-	-	-
Stage 1	798	-	-	-	-	-
Stage 2	764	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	494	797	1324	-	-	-
Mov Cap-2 Maneuver	494	-	-	-	-	-
Stage 1	770	-	-	-	-	-
Stage 2	764	-	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s	10	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWR	WBLn1	SEL	SET
Capacity (veh/h)	-	-	775	1324	-
HCM Lane V/C Ratio	-	-	0.065	0.031	-
HCM Control Delay (s)	-	-	10	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	24	12	18	18	1	17	31	13	4	28	1
Future Vol, veh/h	2	24	12	18	18	1	17	31	13	4	28	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	27	13	20	20	1	19	34	14	4	31	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.2	7.5	7.4	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	28%	5%	49%	12%
Vol Thru, %	51%	63%	49%	85%
Vol Right, %	21%	32%	3%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	61	38	37	33
LT Vol	17	2	18	4
Through Vol	31	24	18	28
RT Vol	13	12	1	1
Lane Flow Rate	68	42	41	37
Geometry Grp	1	1	1	1
Degree of Util (X)	0.076	0.047	0.048	0.042
Departure Headway (Hd)	4.036	3.968	4.229	4.138
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	882	895	841	859
Service Time	2.083	2.026	2.286	2.191
HCM Lane V/C Ratio	0.077	0.047	0.049	0.043
HCM Control Delay	7.4	7.2	7.5	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0.2	0.1

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	13	0	41	0	1	0	13	108	0	1	122	15
Future Vol, veh/h	13	0	41	0	1	0	13	108	0	1	122	15
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	0	48	0	1	0	15	126	0	1	142	17
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.7	8.1	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	24%	0%	1%
Vol Thru, %	89%	0%	100%	88%
Vol Right, %	0%	76%	0%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	121	54	1	138
LT Vol	13	13	0	1
Through Vol	108	0	1	122
RT Vol	0	41	0	15
Lane Flow Rate	141	63	1	160
Geometry Grp	1	1	1	1
Degree of Util (X)	0.164	0.073	0.002	0.182
Departure Headway (Hd)	4.19	4.183	4.663	4.089
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	847	861	772	868
Service Time	2.26	2.184	2.666	2.159
HCM Lane V/C Ratio	0.166	0.073	0.001	0.184
HCM Control Delay	8.1	7.5	7.7	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.2	0	0.7

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			↰↑↱	
Traffic Vol, veh/h	3	15	53	45	23	6	34	55	31	3	75	10
Future Vol, veh/h	3	15	53	45	23	6	34	55	31	3	75	10
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	19	69	58	30	8	44	71	40	4	97	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	7.8	8.5	8.6	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	28%	4%	61%	7%	0%
Vol Thru, %	46%	21%	31%	93%	79%
Vol Right, %	26%	75%	8%	0%	21%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	120	71	74	41	48
LT Vol	34	3	45	3	0
Through Vol	55	15	23	38	38
RT Vol	31	53	6	0	10
Lane Flow Rate	156	92	96	53	62
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.195	0.109	0.127	0.075	0.085
Departure Headway (Hd)	4.508	4.249	4.746	5.137	4.951
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	796	843	755	697	724
Service Time	2.536	2.277	2.774	2.866	2.681
HCM Lane V/C Ratio	0.196	0.109	0.127	0.076	0.086
HCM Control Delay	8.6	7.8	8.5	8.3	8.1
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.7	0.4	0.4	0.2	0.3

Intersection						
Int Delay, s/veh	2					

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	57	29	5	174	182	59
Future Vol, veh/h	57	29	5	174	182	59
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	-	-	-	-	-
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	8	8	2
Mvmt Flow	63	32	5	191	200	65

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	434	233	265	0	-	0
Stage 1	233	-	-	-	-	-
Stage 2	201	-	-	-	-	-
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	579	806	1299	-	-	-
Stage 1	806	-	-	-	-	-
Stage 2	833	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	577	806	1299	-	-	-
Mov Cap-2 Maneuver	577	-	-	-	-	-
Stage 1	803	-	-	-	-	-
Stage 2	833	-	-	-	-	-

Approach	SB	SE	NW
HCM Control Delay, s	11.6	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SBLn1
Capacity (veh/h)	-	-	1299	-	638
HCM Lane V/C Ratio	-	-	0.004	-	0.148
HCM Control Delay (s)	-	-	7.8	0	11.6
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0	-	0.5

Intersection	
Int Delay, s/veh	5.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	164	70	138	138	57	132
Future Vol, veh/h	164	70	138	138	57	132
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	198	84	166	166	69	159

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	282	0	738	240
Stage 1	-	-	-	-	240	-
Stage 2	-	-	-	-	498	-
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	-	-	1280	-	385	799
Stage 1	-	-	-	-	800	-
Stage 2	-	-	-	-	611	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1280	-	330	799
Mov Cap-2 Maneuver	-	-	-	-	330	-
Stage 1	-	-	-	-	800	-
Stage 2	-	-	-	-	524	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.1	15.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	559	-	-	1280	-
HCM Lane V/C Ratio	0.407	-	-	0.13	-
HCM Control Delay (s)	15.8	-	-	8.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	2	-	-	0.4	-

Intersection	
Intersection Delay, s/veh	25.6
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Vol, veh/h	26	140	127	40	137	48	28	174	29	112	177	20
Future Vol, veh/h	26	140	127	40	137	48	28	174	29	112	177	20
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
Heavy Vehicles, %	2	2	2	2	2	2	2	8	2	2	8	2
Mvmt Flow	31	167	151	48	163	57	33	207	35	133	211	24
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	1

Approach	EB	WB	SE	NW
Opposing Approach	WB	EB	NW	SE
Opposing Lanes	2	1	2	1
Conflicting Approach Left	SE	NW	WB	EB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NW	SE	EB	WB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	29.7	16.8	23.2	29.8
HCM LOS	D	C	C	D

Lane	NWLn1	NWLn2	EBLn1	WBLn1	WBLn2	SELn1
Vol Left, %	39%	0%	9%	23%	0%	12%
Vol Thru, %	61%	0%	48%	77%	0%	75%
Vol Right, %	0%	100%	43%	0%	100%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	289	20	293	177	48	231
LT Vol	112	0	26	40	0	28
Through Vol	177	0	140	137	0	174
RT Vol	0	20	127	0	48	29
Lane Flow Rate	344	24	349	211	57	275
Geometry Grp	7	7	6	7	7	6
Degree of Util (X)	0.754	0.047	0.741	0.48	0.117	0.614
Departure Headway (Hd)	7.885	7.07	7.65	8.196	7.356	8.043
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	458	506	471	438	486	448
Service Time	5.64	4.824	5.711	5.96	5.119	6.109
HCM Lane V/C Ratio	0.751	0.047	0.741	0.482	0.117	0.614
HCM Control Delay	31.2	10.2	29.7	18.4	11.1	23.2
HCM Lane LOS	D	B	D	C	B	C
HCM 95th-tile Q	6.3	0.1	6.1	2.5	0.4	4

Intersection	
Intersection Delay, s/veh	11
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	43	86	23	49	79	12	31	99	34	20	136	53
Future Vol, veh/h	43	86	23	49	79	12	31	99	34	20	136	53
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	55	110	29	63	101	15	40	127	44	26	174	68
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.8	10.7	10.8	11.5
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	28%	35%	10%
Vol Thru, %	60%	57%	56%	65%
Vol Right, %	21%	15%	9%	25%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	164	152	140	209
LT Vol	31	43	49	20
Through Vol	99	86	79	136
RT Vol	34	23	12	53
Lane Flow Rate	210	195	179	268
Geometry Grp	1	1	1	1
Degree of Util (X)	0.311	0.297	0.277	0.386
Departure Headway (Hd)	5.323	5.488	5.565	5.19
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	675	655	644	691
Service Time	3.363	3.53	3.608	3.229
HCM Lane V/C Ratio	0.311	0.298	0.278	0.388
HCM Control Delay	10.8	10.8	10.7	11.5
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.3	1.2	1.1	1.8

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	100	47	21	39	40	35	29	135	27	8	81	40
Future Vol, veh/h	100	47	21	39	40	35	29	135	27	8	81	40
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	137	64	29	53	55	48	40	185	37	11	111	55
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.3	10.1	11.4	10.1
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	60%	34%	6%
Vol Thru, %	71%	28%	35%	63%
Vol Right, %	14%	12%	31%	31%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	191	168	114	129
LT Vol	29	100	39	8
Through Vol	135	47	40	81
RT Vol	27	21	35	40
Lane Flow Rate	262	230	156	177
Geometry Grp	1	1	1	1
Degree of Util (X)	0.38	0.346	0.233	0.257
Departure Headway (Hd)	5.223	5.405	5.375	5.241
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	688	665	667	684
Service Time	3.257	3.441	3.415	3.279
HCM Lane V/C Ratio	0.381	0.346	0.234	0.259
HCM Control Delay	11.4	11.3	10.1	10.1
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.8	1.5	0.9	1

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	2	84	4	2	1	22	101	3	0	149	15
Future Vol, veh/h	18	2	84	4	2	1	22	101	3	0	149	15
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	3	108	5	3	1	28	129	4	0	191	19
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.2	8.1	8.7	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	17%	57%	0%
Vol Thru, %	80%	2%	29%	91%
Vol Right, %	2%	81%	14%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	126	104	7	164
LT Vol	22	18	4	0
Through Vol	101	2	2	149
RT Vol	3	84	1	15
Lane Flow Rate	162	133	9	210
Geometry Grp	1	1	1	1
Degree of Util (X)	0.202	0.16	0.012	0.256
Departure Headway (Hd)	4.503	4.332	4.966	4.379
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	798	828	720	822
Service Time	2.524	2.356	2.998	2.398
HCM Lane V/C Ratio	0.203	0.161	0.013	0.255
HCM Control Delay	8.7	8.2	8.1	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	0.6	0	1

Lane Group	NBL	NBT	NBR	SBL	SBT	SET	SER	NWL	NWT
Lane Group Flow (vph)	152	175	229	33	213	282	119	182	256
v/c Ratio	0.59	0.35	0.37	0.20	0.62	0.69	0.24	0.62	0.31
Control Delay	40.6	21.8	5.5	34.0	34.0	34.8	2.7	38.3	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.6	21.8	5.5	34.0	34.0	34.8	2.7	38.3	12.4
Queue Length 50th (ft)	63	50	0	14	85	111	0	74	61
Queue Length 95th (ft)	#128	111	41	37	142	179	12	#135	105
Internal Link Dist (ft)		639			101	192			1578
Turn Bay Length (ft)			60	110			100	190	
Base Capacity (vph)	278	601	705	165	441	497	574	338	962
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.29	0.32	0.20	0.48	0.57	0.21	0.54	0.27

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	129	149	195	28	181	0	0	240	101	155	188	30
Future Volume (veh/h)	129	149	195	28	181	0	0	240	101	155	188	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	1737	1870	1870	1737	0	0	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	152	175	0	33	213	0	0	282	119	182	221	35
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	11	2	2	11	0	0	8	2	2	8	8
Cap, veh/h	196	418		65	290	0	0	373	332	233	645	102
Arrive On Green	0.11	0.24	0.00	0.04	0.17	0.00	0.00	0.21	0.21	0.13	0.43	0.43
Sat Flow, veh/h	1781	1737	1585	1781	1737	0	0	1781	1585	1781	1501	238
Grp Volume(v), veh/h	152	175	0	33	213	0	0	282	119	182	0	256
Grp Sat Flow(s),veh/h/ln	1781	1737	1585	1781	1737	0	0	1781	1585	1781	0	1739
Q Serve(g_s), s	4.3	4.4	0.0	0.9	6.0	0.0	0.0	7.7	3.3	5.1	0.0	5.1
Cycle Q Clear(g_c), s	4.3	4.4	0.0	0.9	6.0	0.0	0.0	7.7	3.3	5.1	0.0	5.1
Prop In Lane	1.00		1.00	1.00		0.00	0.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	196	418		65	290	0	0	373	332	233	0	747
V/C Ratio(X)	0.78	0.42		0.51	0.73	0.00	0.00	0.76	0.36	0.78	0.00	0.34
Avail Cap(c_a), veh/h	325	621		194	520	0	0	585	520	395	0	1111
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.3	16.5	0.0	24.3	20.3	0.0	0.0	19.1	17.4	21.7	0.0	9.8
Incr Delay (d2), s/veh	6.5	0.7	0.0	6.0	3.6	0.0	0.0	3.1	0.7	5.6	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	1.6	0.0	0.5	2.5	0.0	0.0	3.0	1.1	2.3	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.8	17.2	0.0	30.3	23.9	0.0	0.0	22.3	18.0	27.3	0.0	10.1
LnGrp LOS	C	B		C	C	A	A	C	B	C	A	B
Approach Vol, veh/h		327	A		246			401			438	
Approach Delay, s/veh		22.6			24.8			21.0			17.2	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	8
Phs Duration (G+Y+Rc), s	6.5	17.8	11.3	15.9	10.3	14.0	27.2
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	* 5.4	5.1
Max Green Setting (Gmax), s	5.6	18.4	11.4	16.9	9.4	* 15	32.9
Max Q Clear Time (g_c+I1), s	2.9	6.4	7.1	9.7	6.3	8.0	7.1
Green Ext Time (p_c), s	0.0	0.7	0.2	1.1	0.1	0.6	1.5

Intersection Summary	
HCM 6th Ctrl Delay	20.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	16
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	33	54	82	46	27	50	124	96	44	169	41
Future Vol, veh/h	19	33	54	82	46	27	50	124	96	44	169	41
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	48	78	119	67	39	72	180	139	64	245	59
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.9	13.9	17.7	17.3
HCM LOS	B	B	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	18%	53%	17%
Vol Thru, %	46%	31%	30%	67%
Vol Right, %	36%	51%	17%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	270	106	155	254
LT Vol	50	19	82	44
Through Vol	124	33	46	169
RT Vol	96	54	27	41
Lane Flow Rate	391	154	225	368
Geometry Grp	1	1	1	1
Degree of Util (X)	0.621	0.275	0.405	0.598
Departure Headway (Hd)	5.71	6.433	6.492	5.852
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	630	558	553	615
Service Time	3.75	4.488	4.542	3.895
HCM Lane V/C Ratio	0.621	0.276	0.407	0.598
HCM Control Delay	17.7	11.9	13.9	17.3
HCM Lane LOS	C	B	B	C
HCM 95th-tile Q	4.3	1.1	1.9	4

Lane Group	EBT	EBR	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	94	121	11	99	513	530
v/c Ratio	0.26	0.24	0.03	0.23	0.25	0.35
Control Delay	18.8	6.0	0.1	19.1	5.1	11.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	6.0	0.1	19.1	5.1	11.9
Queue Length 50th (ft)	21	0	0	22	27	54
Queue Length 95th (ft)	56	27	0	59	50	94
Internal Link Dist (ft)	2546		191		2566	560
Turn Bay Length (ft)		100		160		
Base Capacity (vph)	697	851	726	626	3051	2451
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.14	0.02	0.16	0.17	0.22

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	0	99	7	0	2	81	421	0	0	377	57
Future Volume (veh/h)	77	0	99	7	0	2	81	421	0	0	377	57
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	1737	1737	1737	1737	1737
Adj Flow Rate, veh/h	94	0	121	9	0	2	99	513	0	0	460	70
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	11	11	11
Cap, veh/h	474	0	258	331	20	32	131	1725	0	0	867	131
Arrive On Green	0.16	0.00	0.16	0.16	0.00	0.16	0.07	0.52	0.00	0.00	0.30	0.30
Sat Flow, veh/h	1520	0	1585	770	125	199	1781	3387	0	0	2961	435
Grp Volume(v), veh/h	94	0	121	11	0	0	99	513	0	0	263	267
Grp Sat Flow(s),veh/h/ln	1520	0	1585	1094	0	0	1781	1650	0	0	1650	1659
Q Serve(g_s), s	0.0	0.0	2.2	0.0	0.0	0.0	1.7	2.8	0.0	0.0	4.2	4.3
Cycle Q Clear(g_c), s	1.5	0.0	2.2	1.5	0.0	0.0	1.7	2.8	0.0	0.0	4.2	4.3
Prop In Lane	1.00		1.00	0.82		0.18	1.00		0.00	0.00		0.26
Lane Grp Cap(c), veh/h	474	0	258	384	0	0	131	1725	0	0	498	500
V/C Ratio(X)	0.20	0.00	0.47	0.03	0.00	0.00	0.76	0.30	0.00	0.00	0.53	0.53
Avail Cap(c_a), veh/h	928	0	767	393	0	0	577	3070	0	0	1535	1543
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	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	11.8	0.0	12.1	11.2	0.0	0.0	14.5	4.3	0.0	0.0	9.2	9.2
Incr Delay (d2), s/veh	0.2	0.0	1.3	0.0	0.0	0.0	8.6	0.1	0.0	0.0	0.9	0.9
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	0.5	0.0	0.7	0.1	0.0	0.0	0.9	0.4	0.0	0.0	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.0	0.0	13.4	11.3	0.0	0.0	23.1	4.4	0.0	0.0	10.1	10.1
LnGrp LOS	B	A	B	B	A	A	C	A	A	A	B	B
Approach Vol, veh/h		215			11			612			530	
Approach Delay, s/veh		12.8			11.3			7.4			10.1	
Approach LOS		B			B			A			B	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		22.0		9.8	7.0	15.0		9.8				
Change Period (Y+Rc), s		5.4		4.6	* 4.7	5.4		4.6				
Max Green Setting (Gmax), s		29.6		15.4	* 10	29.6		5.4				
Max Q Clear Time (g_c+I1), s		4.8		4.2	3.7	6.3		3.5				
Green Ext Time (p_c), s		3.6		0.6	0.1	3.3		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	9.3
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	SBL	SEL	SET	NWT	NWR
Lane Group Flow (vph)	217	80	460	320	38
v/c Ratio	0.41	0.20	0.41	0.38	0.05
Control Delay	10.9	20.1	6.7	14.0	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.9	20.1	6.7	14.0	5.3
Queue Length 50th (ft)	18	17	50	65	0
Queue Length 95th (ft)	68	56	116	141	14
Internal Link Dist (ft)	2230		1578	1622	
Turn Bay Length (ft)		435			400
Base Capacity (vph)	903	600	1542	1208	1098
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.24	0.13	0.30	0.26	0.03

Intersection Summary

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (veh/h)	65	118	67	386	269	32
Future Volume (veh/h)	65	118	67	386	269	32
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1870	1781	1781	1870
Adj Flow Rate, veh/h	77	140	80	460	320	38
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	2	8	8	2
Cap, veh/h	100	182	250	987	479	427
Arrive On Green	0.17	0.17	0.14	0.55	0.27	0.27
Sat Flow, veh/h	583	1060	1781	1781	1781	1585
Grp Volume(v), veh/h	218	0	80	460	320	38
Grp Sat Flow(s),veh/h/ln	1650	0	1781	1781	1781	1585
Q Serve(g_s), s	4.5	0.0	1.4	5.5	5.7	0.6
Cycle Q Clear(g_c), s	4.5	0.0	1.4	5.5	5.7	0.6
Prop In Lane	0.35	0.64	1.00			1.00
Lane Grp Cap(c), veh/h	284	0	250	987	479	427
V/C Ratio(X)	0.77	0.00	0.32	0.47	0.67	0.09
Avail Cap(c_a), veh/h	718	0	498	1254	1254	1116
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	14.0	0.0	13.7	4.7	11.5	9.7
Incr Delay (d2), s/veh	4.4	0.0	0.7	0.3	1.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.5	1.0	1.9	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.3	0.0	14.4	5.1	13.1	9.8
LnGrp LOS	B	A	B	A	B	A
Approach Vol, veh/h	218			540	358	
Approach Delay, s/veh	18.3			6.5	12.8	
Approach LOS	B			A	B	

Timer - Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	10.1	14.6				24.7		10.7
Change Period (Y+Rc), s	5.1	5.1				5.1		4.6
Max Green Setting (Gmax), s	9.9	24.9				24.9		15.4
Max Q Clear Time (g_c+I1), s	3.4	7.7				7.5		6.5
Green Ext Time (p_c), s	0.1	1.9				2.7		0.4

Intersection Summary	
HCM 6th Ctrl Delay	10.8
HCM 6th LOS	B

Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

Intersection						
Int Delay, s/veh	1.9					

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	50	37	22	428	264	50
Future Vol, veh/h	50	37	22	428	264	50
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	8	8	2
Mvmt Flow	58	43	26	498	307	58

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	886	336	365	0	-	0
Stage 1	336	-	-	-	-	-
Stage 2	550	-	-	-	-	-
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	315	706	1194	-	-	-
Stage 1	724	-	-	-	-	-
Stage 2	578	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	306	706	1194	-	-	-
Mov Cap-2 Maneuver	306	-	-	-	-	-
Stage 1	702	-	-	-	-	-
Stage 2	578	-	-	-	-	-

Approach	SB	SE	NW
HCM Control Delay, s	16.9	0.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SBLn1
Capacity (veh/h)	-	-	1194	-	403
HCM Lane V/C Ratio	-	-	0.021	-	0.251
HCM Control Delay (s)	-	-	8.1	0	16.9
HCM Lane LOS	-	-	A	A	C
HCM 95th %tile Q(veh)	-	-	0.1	-	1

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	207	115	100	533	25	564
v/c Ratio	0.47	0.32	0.30	0.32	0.09	0.41
Control Delay	18.5	23.6	34.0	16.6	32.7	21.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.5	23.6	34.0	16.6	32.7	21.1
Queue Length 50th (ft)	35	28	36	63	9	100
Queue Length 95th (ft)	91	74	91	151	32	160
Internal Link Dist (ft)	615	635		1224		2566
Turn Bay Length (ft)			135		135	
Base Capacity (vph)	756	676	534	1705	466	1706
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.17	0.19	0.31	0.05	0.33

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	32	115	23	29	41	81	407	25	20	427	30
Future Volume (veh/h)	20	32	115	23	29	41	81	407	25	20	427	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	1737	1737	1870	1737	1737
Adj Flow Rate, veh/h	25	40	142	28	36	51	100	502	31	25	527	37
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	2	11	11
Cap, veh/h	33	53	188	37	48	68	135	960	59	52	807	57
Arrive On Green	0.17	0.17	0.17	0.09	0.09	0.09	0.08	0.30	0.30	0.03	0.26	0.26
Sat Flow, veh/h	200	320	1136	417	536	760	1781	3158	195	1781	3128	219
Grp Volume(v), veh/h	207	0	0	115	0	0	100	262	271	25	277	287
Grp Sat Flow(s),veh/h/ln	1656	0	0	1713	0	0	1781	1650	1702	1781	1650	1698
Q Serve(g_s), s	5.9	0.0	0.0	3.2	0.0	0.0	2.7	6.5	6.5	0.7	7.4	7.4
Cycle Q Clear(g_c), s	5.9	0.0	0.0	3.2	0.0	0.0	2.7	6.5	6.5	0.7	7.4	7.4
Prop In Lane	0.12		0.69	0.24		0.44	1.00		0.11	1.00		0.13
Lane Grp Cap(c), veh/h	275	0	0	154	0	0	135	502	518	52	426	438
V/C Ratio(X)	0.75	0.00	0.00	0.75	0.00	0.00	0.74	0.52	0.52	0.48	0.65	0.65
Avail Cap(c_a), veh/h	607	0	0	523	0	0	314	888	916	357	928	955
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.6	0.0	0.0	21.9	0.0	0.0	22.4	14.2	14.2	23.6	16.4	16.4
Incr Delay (d2), s/veh	4.2	0.0	0.0	7.1	0.0	0.0	7.8	0.8	0.8	6.6	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.0	1.5	0.0	0.0	1.3	2.2	2.3	0.4	2.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	0.0	0.0	29.0	0.0	0.0	30.2	15.1	15.1	30.2	18.0	18.0
LnGrp LOS	C	A	A	C	A	A	C	B	B	C	B	B
Approach Vol, veh/h		207			115			633			589	
Approach Delay, s/veh		23.8			29.0			17.5			18.6	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.2	20.4		13.3	8.4	18.2		9.5
Change Period (Y+Rc), s	* 4.7	5.4		5.1	* 4.7	5.4		5.1
Max Green Setting (Gmax), s	* 9.9	26.6		18.1	* 8.7	27.8		15.1
Max Q Clear Time (g_c+I1), s	2.7	8.5		7.9	4.7	9.4		5.2
Green Ext Time (p_c), s	0.0	3.1		0.8	0.1	3.3		0.3

Intersection Summary	
HCM 6th Ctrl Delay	19.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	NBT	SBT	SEL	SET	SER	NWL	NWT
Lane Group Flow (vph)	442	263	3	393	103	128	261
v/c Ratio	0.93	0.94	0.03	0.87	0.20	0.83	0.39
Control Delay	59.4	84.3	46.0	54.8	2.1	84.3	23.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.4	84.3	46.0	54.8	2.1	84.3	23.9
Queue Length 50th (ft)	243	169	2	233	0	82	107
Queue Length 95th (ft)	#435	#332	11	#382	13	#189	205
Internal Link Dist (ft)	479	5386		3214			2844
Turn Bay Length (ft)			220		100	220	
Base Capacity (vph)	494	279	92	508	568	154	665
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.94	0.03	0.77	0.18	0.83	0.39

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	99	84	224	124	114	4	3	362	95	118	199	41
Future Volume (veh/h)	99	84	224	124	114	4	3	362	95	118	199	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	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	108	91	243	135	124	4	3	393	103	128	216	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	8	2	2	8	8
Cap, veh/h	109	92	245	143	131	4	7	438	390	156	471	98
Arrive On Green	0.26	0.26	0.26	0.15	0.15	0.15	0.00	0.25	0.25	0.09	0.33	0.33
Sat Flow, veh/h	411	347	925	934	857	28	1781	1781	1585	1781	1430	298
Grp Volume(v), veh/h	442	0	0	263	0	0	3	393	103	128	0	261
Grp Sat Flow(s),veh/h/ln	1683	0	0	1819	0	0	1781	1781	1585	1781	0	1728
Q Serve(g_s), s	25.1	0.0	0.0	13.7	0.0	0.0	0.2	20.5	5.0	6.8	0.0	11.4
Cycle Q Clear(g_c), s	25.1	0.0	0.0	13.7	0.0	0.0	0.2	20.5	5.0	6.8	0.0	11.4
Prop In Lane	0.24		0.55	0.51		0.02	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	446	0	0	279	0	0	7	438	390	156	0	569
V/C Ratio(X)	0.99	0.00	0.00	0.94	0.00	0.00	0.42	0.90	0.26	0.82	0.00	0.46
Avail Cap(c_a), veh/h	446	0	0	279	0	0	93	515	458	156	0	569
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.1	0.0	0.0	40.2	0.0	0.0	47.6	35.0	29.2	43.0	0.0	25.4
Incr Delay (d2), s/veh	40.2	0.0	0.0	38.8	0.0	0.0	34.9	16.6	0.4	28.1	0.0	0.6
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	14.7	0.0	0.0	8.7	0.0	0.0	0.1	10.1	1.8	4.0	0.0	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.3	0.0	0.0	79.0	0.0	0.0	82.5	51.6	29.5	71.1	0.0	26.0
LnGrp LOS	E	A	A	E	A	A	F	D	C	E	A	C
Approach Vol, veh/h		442			263			499			389	
Approach Delay, s/veh		75.3			79.0			47.2			40.8	
Approach LOS		E			E			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.8	13.8	30.1		21.2	5.8	38.1				
Change Period (Y+Rc), s		5.4	5.4	6.5		6.5	5.4	6.5				
Max Green Setting (Gmax), s		25.4	8.4	27.7		14.7	5.0	31.1				
Max Q Clear Time (g_c+I1), s		27.1	8.8	22.5		15.7	2.2	13.4				
Green Ext Time (p_c), s		0.0	0.0	1.1		0.0	0.0	1.1				

Intersection Summary			
HCM 6th Ctrl Delay			58.7
HCM 6th LOS			E

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	95	82	429	92	38	535
Future Vol, veh/h	95	82	429	92	38	535
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	-	-	-	10	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	11	2	2	11
Mvmt Flow	114	99	517	111	46	645

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	988	314	0	0	628	0
Stage 1	573	-	-	-	-	-
Stage 2	415	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	244	682	-	-	950	-
Stage 1	527	-	-	-	-	-
Stage 2	635	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	232	682	-	-	950	-
Mov Cap-2 Maneuver	362	-	-	-	-	-
Stage 1	527	-	-	-	-	-
Stage 2	605	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.2	0	0.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	463	950	-
HCM Lane V/C Ratio	-	-	0.461	0.048	-
HCM Control Delay (s)	-	-	19.2	9	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	2.4	0.2	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	318	516	541	338	354	447
v/c Ratio	0.82	0.33	0.88	0.17	0.59	0.68
Control Delay	43.3	0.5	38.3	5.4	28.0	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.3	0.5	38.3	5.4	28.0	8.8
Queue Length 50th (ft)	120	0	196	25	67	0
Queue Length 95th (ft)	#194	0	#289	34	91	39
Internal Link Dist (ft)	1555			480	2580	
Turn Bay Length (ft)			340			280
Base Capacity (vph)	414	1583	662	2159	670	681
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.33	0.82	0.16	0.53	0.66

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	251	408	427	267	280	353
Future Volume (veh/h)	251	408	427	267	280	353
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1737	1737	1870
Adj Flow Rate, veh/h	318	0	541	338	354	320
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	11	11	2
Cap, veh/h	370		595	2066	686	329
Arrive On Green	0.21	0.00	0.33	0.63	0.21	0.21
Sat Flow, veh/h	1781	1585	1781	3387	3387	1585
Grp Volume(v), veh/h	318	0	541	338	354	320
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1650	1650	1585
Q Serve(g_s), s	10.4	0.0	17.6	2.6	5.8	12.2
Cycle Q Clear(g_c), s	10.4	0.0	17.6	2.6	5.8	12.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	370		595	2066	686	329
V/C Ratio(X)	0.86		0.91	0.16	0.52	0.97
Avail Cap(c_a), veh/h	420		673	2209	686	329
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	23.2	0.0	19.3	4.7	21.3	23.8
Incr Delay (d2), s/veh	15.0	0.0	15.3	0.0	0.7	41.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	0.0	8.6	0.6	2.0	7.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.2	0.0	34.6	4.8	22.0	65.7
LnGrp LOS	D		C	A	C	E
Approach Vol, veh/h	318	A		879	674	
Approach Delay, s/veh	38.2			23.1	42.8	
Approach LOS	D			C	D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		43.4		17.3	25.4	18.0
Change Period (Y+Rc), s		5.4		* 4.7	5.1	5.4
Max Green Setting (Gmax), s		40.6		* 14	22.9	12.6
Max Q Clear Time (g_c+I1), s		4.6		12.4	19.6	14.2
Green Ext Time (p_c), s		2.2		0.2	0.7	0.0
Intersection Summary						
HCM 6th Ctrl Delay			32.7			
HCM 6th LOS			C			

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	48	255	121	352	70	428	99	271	448
v/c Ratio	0.29	0.58	0.53	0.49	0.33	0.63	0.17	0.69	0.34
Control Delay	30.6	22.6	34.5	11.7	29.4	25.7	0.6	31.2	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.6	22.6	34.5	11.7	29.4	25.7	0.6	31.2	14.2
Queue Length 50th (ft)	17	28	42	21	24	74	0	89	63
Queue Length 95th (ft)	43	58	#93	52	56	112	0	#156	95
Internal Link Dist (ft)		1219		1008		1659			690
Turn Bay Length (ft)	400		215		225		225	250	
Base Capacity (vph)	167	441	244	757	220	775	622	466	1335
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.58	0.50	0.46	0.32	0.55	0.16	0.58	0.34

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	137	85	105	104	202	61	372	86	236	372	17
Future Volume (veh/h)	42	137	85	105	104	202	61	372	86	236	372	17
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	1737	1870	1870	1737	1737
Adj Flow Rate, veh/h	48	157	98	121	120	232	70	428	99	271	428	20
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	11	2	2	11	11
Cap, veh/h	87	260	154	156	269	240	111	616	296	335	1003	47
Arrive On Green	0.05	0.12	0.12	0.09	0.15	0.15	0.06	0.19	0.19	0.19	0.31	0.31
Sat Flow, veh/h	1781	2150	1269	1781	1777	1585	1781	3300	1585	1781	3210	150
Grp Volume(v), veh/h	48	128	127	121	120	232	70	428	99	271	219	229
Grp Sat Flow(s),veh/h/ln	1781	1777	1642	1781	1777	1585	1781	1650	1585	1781	1650	1710
Q Serve(g_s), s	1.3	3.4	3.6	3.3	3.0	7.2	1.9	6.0	2.7	7.2	5.2	5.2
Cycle Q Clear(g_c), s	1.3	3.4	3.6	3.3	3.0	7.2	1.9	6.0	2.7	7.2	5.2	5.2
Prop In Lane	1.00		0.77	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	87	215	199	156	269	240	111	616	296	335	516	534
V/C Ratio(X)	0.55	0.60	0.64	0.78	0.45	0.97	0.63	0.69	0.33	0.81	0.43	0.43
Avail Cap(c_a), veh/h	180	215	199	263	269	240	238	841	404	501	664	688
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.0	20.6	20.7	22.1	19.1	20.9	22.6	18.8	17.4	19.2	13.5	13.5
Incr Delay (d2), s/veh	5.4	4.4	6.6	8.0	1.2	48.2	5.7	1.5	0.7	6.0	0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.5	1.6	1.5	1.2	5.5	0.9	2.1	0.9	3.1	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.4	25.0	27.3	30.1	20.2	69.0	28.4	20.3	18.1	25.2	14.0	14.0
LnGrp LOS	C	C	C	C	C	E	C	C	B	C	B	B
Approach Vol, veh/h		303			473			597			719	
Approach Delay, s/veh		26.5			46.7			20.9			18.2	
Approach LOS		C			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.4	14.6	9.0	11.4	8.2	20.9	7.5	12.9
Change Period (Y+Rc), s	5.1	5.4	* 4.7	5.4	5.1	5.4	5.1	5.4
Max Green Setting (Gmax), s	13.9	12.6	* 7.3	5.6	6.6	19.9	5.0	7.5
Max Q Clear Time (g_c+I1), s	9.2	8.0	5.3	5.6	3.9	7.2	3.3	9.2
Green Ext Time (p_c), s	0.3	1.2	0.0	0.0	0.0	2.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	26.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	122	46	106	113	8	535	79	578
v/c Ratio	0.31	0.09	0.28	0.22	0.03	0.39	0.24	0.35
Control Delay	25.1	0.3	24.7	1.3	25.3	15.8	26.1	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.1	0.3	24.7	1.3	25.3	15.8	26.1	12.6
Queue Length 50th (ft)	39	0	33	0	3	79	26	64
Queue Length 95th (ft)	86	0	77	3	14	122	64	134
Internal Link Dist (ft)	816		797			1484		1659
Turn Bay Length (ft)		150			75		250	
Base Capacity (vph)	489	583	480	578	289	1541	357	1757
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.08	0.22	0.20	0.03	0.35	0.22	0.33

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	54	41	62	33	102	7	418	64	71	499	22
Future Volume (veh/h)	56	54	41	62	33	102	7	418	64	71	499	22
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	1737	1737	1870	1737	1737
Adj Flow Rate, veh/h	62	60	46	69	37	113	8	464	71	79	554	24
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	2	11	11
Cap, veh/h	95	92	163	133	71	179	19	710	108	128	994	43
Arrive On Green	0.10	0.10	0.10	0.11	0.11	0.11	0.01	0.25	0.25	0.07	0.31	0.31
Sat Flow, veh/h	927	897	1585	1179	632	1585	1781	2871	437	1781	3223	139
Grp Volume(v), veh/h	122	0	46	106	0	113	8	266	269	79	283	295
Grp Sat Flow(s),veh/h/ln	1824	0	1585	1811	0	1585	1781	1650	1658	1781	1650	1712
Q Serve(g_s), s	2.7	0.0	1.1	2.3	0.0	2.8	0.2	6.0	6.1	1.8	6.0	6.0
Cycle Q Clear(g_c), s	2.7	0.0	1.1	2.3	0.0	2.8	0.2	6.0	6.1	1.8	6.0	6.0
Prop In Lane	0.51		1.00	0.65		1.00	1.00		0.26	1.00		0.08
Lane Grp Cap(c), veh/h	187	0	163	205	0	179	19	408	410	128	509	528
V/C Ratio(X)	0.65	0.00	0.28	0.52	0.00	0.63	0.42	0.65	0.66	0.62	0.56	0.56
Avail Cap(c_a), veh/h	367	0	319	360	0	315	218	708	712	269	744	771
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.0	0.0	17.3	17.4	0.0	17.7	20.5	14.1	14.1	18.8	12.0	12.0
Incr Delay (d2), s/veh	3.8	0.0	0.9	2.0	0.0	3.6	14.3	1.8	1.8	4.8	1.0	0.9
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	0.4	0.9	0.0	1.1	0.1	2.0	2.0	0.8	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.8	0.0	18.2	19.4	0.0	21.3	34.8	15.8	15.9	23.6	13.0	13.0
LnGrp LOS	C	A	B	B	A	C	C	B	B	C	B	B
Approach Vol, veh/h		168			219			543			657	
Approach Delay, s/veh		20.8			20.4			16.2			14.3	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	15.7		8.9	5.1	18.3		9.4				
Change Period (Y+Rc), s	* 4.7	* 5.4		4.6	* 4.7	5.4		4.7				
Max Green Setting (Gmax), s	* 6.3	* 18		8.4	* 5.1	18.8		8.3				
Max Q Clear Time (g_c+I1), s	3.8	8.1		4.7	2.2	8.0		4.8				
Green Ext Time (p_c), s	0.0	2.2		0.2	0.0	2.4		0.3				

Intersection Summary			
HCM 6th Ctrl Delay			16.4
HCM 6th LOS			B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	14.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	89	0	51	2	1	1	77	291	2	0	458	37
Future Vol, veh/h	89	0	51	2	1	1	77	291	2	0	458	37
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2	2	11	2	2	11	2
Mvmt Flow	100	0	57	2	1	1	87	327	2	0	515	42
Number of Lanes	1	1	0	0	1	0	1	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	3	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	1	2
HCM Control Delay	11.9	10.8	12.5	16.1
HCM LOS	B	B	B	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	50%	0%	0%
Vol Thru, %	0%	100%	98%	0%	0%	25%	100%	80%
Vol Right, %	0%	0%	2%	0%	100%	25%	0%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	77	194	99	89	51	4	305	190
LT Vol	77	0	0	89	0	2	0	0
Through Vol	0	194	97	0	0	1	305	153
RT Vol	0	0	2	0	51	1	0	37
Lane Flow Rate	87	218	111	100	57	4	343	213
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.168	0.401	0.2	0.218	0.105	0.01	0.606	0.359
Departure Headway (Hd)	6.981	6.63	6.461	7.83	6.615	7.926	6.364	6.071
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	513	541	554	457	539	449	566	590
Service Time	4.739	4.388	4.219	5.602	4.387	5.718	4.117	3.824
HCM Lane V/C Ratio	0.17	0.403	0.2	0.219	0.106	0.009	0.606	0.361
HCM Control Delay	11.2	13.8	10.8	12.8	10.2	10.8	18.5	12.2
HCM Lane LOS	B	B	B	B	B	B	C	B
HCM 95th-tile Q	0.6	1.9	0.7	0.8	0.3	0	4	1.6

Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	55	238	51	164	452	365	158	305	109
v/c Ratio	0.33	0.52	0.13	0.61	0.60	0.59	0.37	0.74	0.20
Control Delay	31.4	29.5	0.7	36.0	23.3	20.3	21.6	33.3	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.4	29.5	0.7	36.0	23.3	20.3	21.6	33.3	0.8
Queue Length 50th (ft)	19	44	0	57	71	45	47	101	0
Queue Length 95th (ft)	47	72	0	#119	#113	77	88	#188	0
Internal Link Dist (ft)		1872			1484	348		628	
Turn Bay Length (ft)	250		80	130			225		
Base Capacity (vph)	169	460	387	289	793	701	495	479	597
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.52	0.13	0.57	0.57	0.52	0.32	0.64	0.18

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	205	44	141	296	93	21	196	97	136	262	94
Future Volume (veh/h)	47	205	44	141	296	93	21	196	97	136	262	94
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	1737	1737	1737	1870	1737	1870
Adj Flow Rate, veh/h	55	238	0	164	344	108	24	228	0	158	305	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	11	11	11	2	11	2
Cap, veh/h	97	400		210	471	146	38	379		405	395	
Arrive On Green	0.05	0.11	0.00	0.12	0.18	0.18	0.12	0.12	0.00	0.23	0.23	0.00
Sat Flow, veh/h	1781	3554	1585	1781	2672	826	306	3152	0	1781	1737	1585
Grp Volume(v), veh/h	55	238	0	164	227	225	135	117	0	158	305	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1722	1722	1650	0	1781	1737	1585
Q Serve(g_s), s	1.4	3.0	0.0	4.3	5.7	5.9	3.5	3.2	0.0	3.6	7.8	0.0
Cycle Q Clear(g_c), s	1.4	3.0	0.0	4.3	5.7	5.9	3.5	3.2	0.0	3.6	7.8	0.0
Prop In Lane	1.00		1.00	1.00		0.48	0.18		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	97	400		210	313	303	213	204		405	395	
V/C Ratio(X)	0.57	0.60		0.78	0.72	0.74	0.63	0.57		0.39	0.77	
Avail Cap(c_a), veh/h	191	486		326	366	355	373	357		558	544	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.0	20.1	0.0	20.4	18.5	18.6	19.8	19.7	0.0	15.6	17.2	0.0
Incr Delay (d2), s/veh	5.2	1.4	0.0	6.3	5.8	6.9	3.1	2.5	0.0	0.6	4.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.2	0.0	1.9	2.5	2.5	1.5	1.2	0.0	1.3	3.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	21.5	0.0	26.7	24.3	25.4	22.9	22.2	0.0	16.2	21.8	0.0
LnGrp LOS	C	C		C	C	C	C	C		B	C	
Approach Vol, veh/h		293	A		616			252	A		463	A
Approach Delay, s/veh		22.6			25.4			22.6			19.9	
Approach LOS		C			C			C			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.6	10.3	10.7		15.9	7.3	13.8				
Change Period (Y+Rc), s		* 4.7	* 4.7	* 5.4		5.1	* 4.7	5.4				
Max Green Setting (Gmax), s		* 10	* 8.7	* 6.5		14.9	* 5.1	9.8				
Max Q Clear Time (g_c+I1), s		5.5	6.3	5.0		9.8	3.4	7.9				
Green Ext Time (p_c), s		0.6	0.1	0.2		1.0	0.0	0.5				

Intersection Summary		
HCM 6th Ctrl Delay		22.9
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	68	142	4	475	464	63
v/c Ratio	0.30	0.41	0.01	0.55	0.70	0.10
Control Delay	25.7	9.7	0.0	19.4	20.1	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.7	9.7	0.0	19.4	20.1	0.9
Queue Length 50th (ft)	20	1	0	65	118	0
Queue Length 95th (ft)	53	42	0	112	204	5
Internal Link Dist (ft)		804	608	1106	348	
Turn Bay Length (ft)	100					275
Base Capacity (vph)	240	355	311	1087	936	858
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.40	0.01	0.44	0.50	0.07

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	2	126	3	0	1	170	252	5	3	415	57
Future Volume (veh/h)	61	2	126	3	0	1	170	252	5	3	415	57
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	68	2	140	3	0	1	189	280	6	3	461	63
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	382	3	195	191	21	20	288	464	10	4	604	516
Arrive On Green	0.12	0.12	0.12	0.12	0.00	0.12	0.21	0.21	0.21	0.33	0.33	0.33
Sat Flow, veh/h	1416	22	1566	306	169	158	1385	2229	49	12	1858	1585
Grp Volume(v), veh/h	68	0	142	4	0	0	246	0	229	464	0	63
Grp Sat Flow(s),veh/h/ln	1416	0	1588	633	0	0	1801	0	1862	1870	0	1585
Q Serve(g_s), s	0.0	0.0	3.5	0.0	0.0	0.0	5.2	0.0	4.6	9.2	0.0	1.2
Cycle Q Clear(g_c), s	1.4	0.0	3.5	3.6	0.0	0.0	5.2	0.0	4.6	9.2	0.0	1.2
Prop In Lane	1.00		0.99	0.75		0.25	0.77		0.03	0.01		1.00
Lane Grp Cap(c), veh/h	382	0	198	232	0	0	375	0	388	608	0	516
V/C Ratio(X)	0.18	0.00	0.72	0.02	0.00	0.00	0.66	0.00	0.59	0.76	0.00	0.12
Avail Cap(c_a), veh/h	422	0	243	269	0	0	581	0	600	966	0	819
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.4	0.0	17.4	15.9	0.0	0.0	15.0	0.0	14.7	12.5	0.0	9.8
Incr Delay (d2), s/veh	0.2	0.0	7.6	0.0	0.0	0.0	1.9	0.0	1.4	2.0	0.0	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	0.5	0.0	1.5	0.0	0.0	0.0	2.0	0.0	1.8	3.3	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.7	0.0	25.0	16.0	0.0	0.0	16.9	0.0	16.2	14.5	0.0	9.9
LnGrp LOS	B	A	C	B	A	A	B	A	B	B	A	A
Approach Vol, veh/h		210			4			475			527	
Approach Delay, s/veh		22.3			16.0			16.6			13.9	
Approach LOS		C			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.3		9.8		18.1		9.8				
Change Period (Y+Rc), s		* 4.7		* 4.7		4.7		* 4.7				
Max Green Setting (Gmax), s		* 13		* 6.3		21.3		* 6.3				
Max Q Clear Time (g_c+I1), s		7.2		5.5		11.2		5.6				
Green Ext Time (p_c), s		1.5		0.1		2.3		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			16.4									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	155	193	11	71	88	90	261	115	191	102
v/c Ratio	0.34	0.14	0.02	0.17	0.16	0.23	0.24	0.17	0.31	0.15
Control Delay	25.2	8.8	26.5	24.1	0.6	25.6	17.2	25.6	20.2	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.2	8.8	26.5	24.1	0.6	25.6	17.2	25.6	20.2	0.4
Queue Length 50th (ft)	47	10	3	22	0	28	36	18	58	0
Queue Length 95th (ft)	111	40	18	58	0	73	66	44	115	0
Internal Link Dist (ft)		676		1147			740		1106	
Turn Bay Length (ft)	210		80			190		195		100
Base Capacity (vph)	611	1686	486	686	738	501	1810	738	906	900
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.11	0.02	0.10	0.12	0.18	0.14	0.16	0.21	0.11

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	95	83	10	65	81	83	224	17	106	176	94
Future Volume (veh/h)	143	95	83	10	65	81	83	224	17	106	176	94
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	155	103	90	11	71	88	90	243	18	115	191	102
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	427	341	26	239	203	143	553	41	318	330	280
Arrive On Green	0.11	0.23	0.23	0.01	0.13	0.13	0.08	0.16	0.16	0.09	0.18	0.18
Sat Flow, veh/h	1781	1879	1498	1781	1870	1585	1781	3356	247	3456	1870	1585
Grp Volume(v), veh/h	155	97	96	11	71	88	90	128	133	115	191	102
Grp Sat Flow(s),veh/h/ln	1781	1777	1601	1781	1870	1585	1781	1777	1826	1728	1870	1585
Q Serve(g_s), s	3.2	1.7	1.9	0.2	1.3	2.0	1.9	2.5	2.5	1.2	3.6	2.2
Cycle Q Clear(g_c), s	3.2	1.7	1.9	0.2	1.3	2.0	1.9	2.5	2.5	1.2	3.6	2.2
Prop In Lane	1.00		0.94	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	203	404	364	26	239	203	143	293	301	318	330	280
V/C Ratio(X)	0.76	0.24	0.26	0.43	0.30	0.43	0.63	0.44	0.44	0.36	0.58	0.36
Avail Cap(c_a), veh/h	479	803	723	246	581	492	386	1035	1063	568	991	840
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.5	12.1	12.2	18.7	15.1	15.4	17.1	14.4	14.4	16.3	14.5	13.9
Incr Delay (d2), s/veh	5.9	0.3	0.4	10.9	0.7	1.5	4.5	1.0	1.0	0.7	1.6	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	1.4	0.6	0.6	0.2	0.5	0.7	0.8	0.9	0.9	0.4	1.4	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.4	12.4	12.5	29.6	15.8	16.9	21.5	15.4	15.4	17.0	16.1	14.7
LnGrp LOS	C	B	B	C	B	B	C	B	B	B	B	B
Approach Vol, veh/h		348			170			351			408	
Approach Delay, s/veh		16.9			17.3			17.0			16.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	11.0	5.3	13.8	7.8	11.5	9.1	10.0
Change Period (Y+Rc), s	* 4.7	* 4.7	* 4.7	* 5.1	* 4.7	* 4.7	* 4.7	5.1
Max Green Setting (Gmax), s	* 6.3	* 22	* 5.3	* 17	* 8.3	* 20	* 10	11.9
Max Q Clear Time (g_c+I1), s	3.2	4.5	2.2	3.9	3.9	5.6	5.2	4.0
Green Ext Time (p_c), s	0.1	1.3	0.0	0.8	0.1	1.2	0.2	0.3

Intersection Summary	
HCM 6th Ctrl Delay	16.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	NBT	SBL	SBT	SBR	SEL	SET	NWL	NWT
Lane Group Flow (vph)	292	16	63	33	119	649	6	331
v/c Ratio	0.42	0.07	0.14	0.09	0.59	0.49	0.03	0.49
Control Delay	19.7	22.3	22.0	0.4	40.0	18.8	22.8	19.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.7	22.3	22.0	0.4	40.0	18.8	22.8	19.3
Queue Length 50th (ft)	42	5	9	0	37	75	2	42
Queue Length 95th (ft)	72	19	24	0	#110	#223	11	79
Internal Link Dist (ft)	790		516			3919		2409
Turn Bay Length (ft)		150		65	165		405	
Base Capacity (vph)	2252	471	889	561	201	1332	300	769
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.03	0.07	0.06	0.59	0.49	0.02	0.43

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	59	182	16	14	55	29	105	514	57	5	223	69
Future Volume (veh/h)	59	182	16	14	55	29	105	514	57	5	223	69
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	1781	1870	1870	1870	1870	1870	1781	1781
Adj Flow Rate, veh/h	67	207	18	16	62	33	119	584	65	6	253	78
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	8	2	2	2	2	2	8	8
Cap, veh/h	125	407	37	154	292	137	159	769	85	14	403	122
Arrive On Green	0.16	0.16	0.16	0.09	0.09	0.09	0.09	0.24	0.24	0.01	0.16	0.16
Sat Flow, veh/h	802	2620	237	1781	3385	1585	1781	3225	358	1781	2562	772
Grp Volume(v), veh/h	153	0	139	16	62	33	119	321	328	6	165	166
Grp Sat Flow(s),veh/h/ln	1830	0	1828	1781	1692	1585	1781	1777	1806	1781	1692	1642
Q Serve(g_s), s	3.2	0.0	2.9	0.3	0.7	0.8	2.8	7.1	7.1	0.1	3.8	4.0
Cycle Q Clear(g_c), s	3.2	0.0	2.9	0.3	0.7	0.8	2.8	7.1	7.1	0.1	3.8	4.0
Prop In Lane	0.44		0.13	1.00		1.00	1.00		0.20	1.00		0.47
Lane Grp Cap(c), veh/h	285	0	284	154	292	137	159	424	431	14	266	258
V/C Ratio(X)	0.54	0.00	0.49	0.10	0.21	0.24	0.75	0.76	0.76	0.42	0.62	0.64
Avail Cap(c_a), veh/h	1310	0	1308	523	994	466	224	424	431	333	421	409
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	16.4	0.0	16.3	17.8	17.9	18.0	18.8	14.9	15.0	20.8	16.6	16.7
Incr Delay (d2), s/veh	1.6	0.0	1.3	0.3	0.4	0.9	8.4	7.7	7.8	18.3	2.4	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	1.2	0.0	1.1	0.1	0.3	0.3	1.2	2.8	2.9	0.1	1.2	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.0	0.0	17.6	18.1	18.3	18.9	27.2	22.7	22.7	39.1	19.0	19.3
LnGrp LOS	B	A	B	B	B	B	C	C	C	D	B	B
Approach Vol, veh/h		292			111			768			337	
Approach Delay, s/veh		17.8			18.4			23.4			19.5	
Approach LOS		B			B			C			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.0	5.4	16.6		8.2	8.9	13.1				
Change Period (Y+Rc), s		5.4	5.1	6.5		4.6	5.1	6.5				
Max Green Setting (Gmax), s		30.2	7.9	7.9		12.4	5.3	10.5				
Max Q Clear Time (g_c+I1), s		5.2	2.1	9.1		2.8	4.8	6.0				
Green Ext Time (p_c), s		1.5	0.0	0.0		0.3	0.0	0.6				

Intersection Summary			
HCM 6th Ctrl Delay			21.1
HCM 6th LOS			C

Notes

User approved pedestrian interval to be less than phase max green.

Intersection												
Int Delay, s/veh	1.6											

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	301	21	31	191	4	9	0	51	1	0	0
Future Vol, veh/h	0	301	21	31	191	4	9	0	51	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	0	327	23	34	208	4	10	0	55	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	212	0	0	350	0	0	617	619	339	644	628	210
Stage 1	-	-	-	-	-	-	339	339	-	278	278	-
Stage 2	-	-	-	-	-	-	278	280	-	366	350	-
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	1358	-	-	1209	-	-	402	404	703	386	400	830
Stage 1	-	-	-	-	-	-	676	640	-	728	680	-
Stage 2	-	-	-	-	-	-	728	679	-	653	633	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1358	-	-	1209	-	-	392	391	703	347	387	830
Mov Cap-2 Maneuver	-	-	-	-	-	-	392	391	-	347	387	-
Stage 1	-	-	-	-	-	-	676	640	-	728	658	-
Stage 2	-	-	-	-	-	-	705	657	-	602	633	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0	1.1	11.4	15.4
HCM LOS			B	C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	628	1209	-	-	1358	-	-	347
HCM Lane V/C Ratio	0.104	0.028	-	-	-	-	-	0.003
HCM Control Delay (s)	11.4	8.1	0	-	0	-	-	15.4
HCM Lane LOS	B	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	1	20	58	294	206	2
Future Vol, veh/h	1	20	58	294	206	2
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	-	-	-	-	-
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	8	8	2
Mvmt Flow	1	22	63	320	224	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	671	225	226	0	-	0
Stage 1	225	-	-	-	-	-
Stage 2	446	-	-	-	-	-
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	422	814	1342	-	-	-
Stage 1	812	-	-	-	-	-
Stage 2	645	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	398	814	1342	-	-	-
Mov Cap-2 Maneuver	398	-	-	-	-	-
Stage 1	766	-	-	-	-	-
Stage 2	645	-	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s	9.8	1.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NWT	NWR	WBLn1	SEL	SET
Capacity (veh/h)	-	-	775	1342	-
HCM Lane V/C Ratio	-	-	0.029	0.047	-
HCM Control Delay (s)	-	-	9.8	7.8	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	2	34	29	36	16	5	15	57	23	6	68	1
Future Vol, veh/h	2	34	29	36	16	5	15	57	23	6	68	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	38	33	40	18	6	17	64	26	7	76	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.9	7.8	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	3%	63%	8%
Vol Thru, %	60%	52%	28%	91%
Vol Right, %	24%	45%	9%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	95	65	57	75
LT Vol	15	2	36	6
Through Vol	57	34	16	68
RT Vol	23	29	5	1
Lane Flow Rate	107	73	64	84
Geometry Grp	1	1	1	1
Degree of Util (X)	0.125	0.085	0.08	0.102
Departure Headway (Hd)	4.23	4.172	4.512	4.372
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	852	862	797	824
Service Time	2.232	2.183	2.525	2.375
HCM Lane V/C Ratio	0.126	0.085	0.08	0.102
HCM Control Delay	7.8	7.6	7.9	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.3	0.3	0.3

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	1	18	5	1	0	25	102	3	4	250	36
Future Vol, veh/h	17	1	18	5	1	0	25	102	3	4	250	36
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	1	25	7	1	0	35	144	4	6	352	51
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.4	8.6	8.9	11
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	47%	83%	1%
Vol Thru, %	78%	3%	17%	86%
Vol Right, %	2%	50%	0%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	36	6	290
LT Vol	25	17	5	4
Through Vol	102	1	1	250
RT Vol	3	18	0	36
Lane Flow Rate	183	51	8	408
Geometry Grp	1	1	1	1
Degree of Util (X)	0.23	0.071	0.013	0.478
Departure Headway (Hd)	4.518	5.018	5.463	4.209
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	796	713	654	858
Service Time	2.539	3.054	3.504	2.226
HCM Lane V/C Ratio	0.23	0.072	0.012	0.476
HCM Control Delay	8.9	8.4	8.6	11
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	0.9	0.2	0	2.6

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	21	68	45	23	4	54	126	50	10	123	13
Future Vol, veh/h	7	21	68	45	23	4	54	126	50	10	123	13
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	23	75	49	25	4	59	138	55	11	135	14
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.3	8.8	9.6	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	7%	62%	7%
Vol Thru, %	55%	22%	32%	84%
Vol Right, %	22%	71%	6%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	230	96	72	146
LT Vol	54	7	45	10
Through Vol	126	21	23	123
RT Vol	50	68	4	13
Lane Flow Rate	253	105	79	160
Geometry Grp	1	1	1	1
Degree of Util (X)	0.315	0.134	0.112	0.206
Departure Headway (Hd)	4.482	4.574	5.103	4.626
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	801	781	699	773
Service Time	2.519	2.622	3.154	2.667
HCM Lane V/C Ratio	0.316	0.134	0.113	0.207
HCM Control Delay	9.6	8.3	8.8	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.4	0.5	0.4	0.8

Intersection	
Int Delay, s/veh	1.6

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	46	11	33	278	203	56
Future Vol, veh/h	46	11	33	278	203	56
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	-	-	-	-	-
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	8	8	2
Mvmt Flow	50	12	36	302	221	61

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	626	252	282	0	-	0
Stage 1	252	-	-	-	-	-
Stage 2	374	-	-	-	-	-
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	448	787	1280	-	-	-
Stage 1	790	-	-	-	-	-
Stage 2	696	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	433	787	1280	-	-	-
Mov Cap-2 Maneuver	433	-	-	-	-	-
Stage 1	763	-	-	-	-	-
Stage 2	696	-	-	-	-	-

Approach	SB	SE	NW
HCM Control Delay, s	13.7	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SBLn1
Capacity (veh/h)	-	-	1280	-	474
HCM Lane V/C Ratio	-	-	0.028	-	0.131
HCM Control Delay (s)	-	-	7.9	0	13.7
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0.1	-	0.4

Intersection						
Int Delay, s/veh	4					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	220	63	74	162	62	86
Future Vol, veh/h	220	63	74	162	62	86
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	247	71	83	182	70	97

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	318	0	631	283
Stage 1	-	-	-	-	283	-
Stage 2	-	-	-	-	348	-
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	-	-	1242	-	445	756
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	715	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1242	-	412	756
Mov Cap-2 Maneuver	-	-	-	-	412	-
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	662	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	14.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	560	-	-	1242	-
HCM Lane V/C Ratio	0.297	-	-	0.067	-
HCM Control Delay (s)	14.1	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.2	-	-	0.2	-

Intersection	
Intersection Delay, s/veh	22.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Vol, veh/h	25	162	115	6	90	27	38	261	31	142	216	9
Future Vol, veh/h	25	162	115	6	90	27	38	261	31	142	216	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	8	2	2	8	2
Mvmt Flow	27	176	125	7	98	29	41	284	34	154	235	10
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

Approach	EB	WB	SE	NW
Opposing Approach	WB	EB	NW	SE
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SE	NW	WB	EB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NW	SE	EB	WB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	19.3	13.2	20.6	29.3
HCM LOS	C	B	C	D

Lane	NWLn1	NWLn2	EBLn1	WBLn1	SELn1	SELn2
Vol Left, %	40%	0%	8%	5%	13%	0%
Vol Thru, %	60%	0%	54%	73%	87%	0%
Vol Right, %	0%	100%	38%	22%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	358	9	302	123	299	31
LT Vol	142	0	25	6	38	0
Through Vol	216	0	162	90	261	0
RT Vol	0	9	115	27	0	31
Lane Flow Rate	389	10	328	134	325	34
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.768	0.017	0.603	0.272	0.64	0.06
Departure Headway (Hd)	7.108	6.291	6.612	7.33	7.088	6.409
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	506	566	545	487	507	556
Service Time	4.88	4.063	4.683	5.43	4.864	4.184
HCM Lane V/C Ratio	0.769	0.018	0.602	0.275	0.641	0.061
HCM Control Delay	29.8	9.2	19.3	13.2	21.7	9.6
HCM Lane LOS	D	A	C	B	C	A
HCM 95th-tile Q	6.8	0.1	4	1.1	4.5	0.2

Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	67	112	32	67	55	28	23	159	39	16	179	47
Future Vol, veh/h	67	112	32	67	55	28	23	159	39	16	179	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	73	122	35	73	60	30	25	173	42	17	195	51
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.7	10.7	11.5	11.8
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	32%	45%	7%
Vol Thru, %	72%	53%	37%	74%
Vol Right, %	18%	15%	19%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	221	211	150	242
LT Vol	23	67	67	16
Through Vol	159	112	55	179
RT Vol	39	32	28	47
Lane Flow Rate	240	229	163	263
Geometry Grp	1	1	1	1
Degree of Util (X)	0.36	0.355	0.258	0.391
Departure Headway (Hd)	5.399	5.565	5.69	5.346
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	663	644	629	671
Service Time	3.451	3.616	3.746	3.396
HCM Lane V/C Ratio	0.362	0.356	0.259	0.392
HCM Control Delay	11.5	11.7	10.7	11.8
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.6	1.6	1	1.9

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	23	60	29	43	65	3	52	54	80	8	72	25
Future Vol, veh/h	23	60	29	43	65	3	52	54	80	8	72	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	65	32	47	71	3	57	59	87	9	78	27
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.6	8.9	9	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	28%	21%	39%	8%
Vol Thru, %	29%	54%	59%	69%
Vol Right, %	43%	26%	3%	24%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	186	112	111	105
LT Vol	52	23	43	8
Through Vol	54	60	65	72
RT Vol	80	29	3	25
Lane Flow Rate	202	122	121	114
Geometry Grp	1	1	1	1
Degree of Util (X)	0.25	0.159	0.163	0.147
Departure Headway (Hd)	4.452	4.695	4.867	4.625
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	805	761	735	773
Service Time	2.491	2.741	2.914	2.668
HCM Lane V/C Ratio	0.251	0.16	0.165	0.147
HCM Control Delay	9	8.6	8.9	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1	0.6	0.6	0.5

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	0	28	1	2	0	34	116	1	0	217	51
Future Vol, veh/h	19	0	28	1	2	0	34	116	1	0	217	51
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	0	38	1	3	0	46	157	1	0	293	69
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.4	8.4	9.1	10.3
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	40%	33%	0%
Vol Thru, %	77%	0%	67%	81%
Vol Right, %	1%	60%	0%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	151	47	3	268
LT Vol	34	19	1	0
Through Vol	116	0	2	217
RT Vol	1	28	0	51
Lane Flow Rate	204	64	4	362
Geometry Grp	1	1	1	1
Degree of Util (X)	0.255	0.086	0.006	0.423
Departure Headway (Hd)	4.504	4.885	5.324	4.206
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	798	733	671	858
Service Time	2.525	2.916	3.362	2.222
HCM Lane V/C Ratio	0.256	0.087	0.006	0.422
HCM Control Delay	9.1	8.4	8.4	10.3
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	1	0.3	0	2.1

Lane Group	NBL	NBT	NBR	SBL	SBT	SET	SER	NWL	NWT
Lane Group Flow (vph)	153	201	173	56	216	258	181	159	310
v/c Ratio	0.51	0.42	0.30	0.25	0.56	0.63	0.36	0.52	0.43
Control Delay	34.1	24.0	5.6	31.6	30.4	32.6	6.7	34.6	15.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.1	24.0	5.6	31.6	30.4	32.6	6.7	34.6	15.0
Queue Length 50th (ft)	60	73	0	22	84	100	0	63	81
Queue Length 95th (ft)	#121	132	41	55	149	#197	46	#134	147
Internal Link Dist (ft)		639			101	192			1578
Turn Bay Length (ft)			60	110			100	190	
Base Capacity (vph)	364	632	695	259	522	519	594	364	973
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.32	0.25	0.22	0.41	0.50	0.30	0.44	0.32

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	139	183	157	51	197	0	0	235	165	145	250	32
Future Volume (veh/h)	139	183	157	51	197	0	0	235	165	145	250	32
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	1737	1870	1870	1737	0	0	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	153	201	0	56	216	0	0	258	181	159	275	35
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	11	2	2	11	0	0	8	2	2	8	8
Cap, veh/h	198	397		97	298	0	0	354	315	206	632	80
Arrive On Green	0.11	0.23	0.00	0.05	0.17	0.00	0.00	0.20	0.20	0.12	0.41	0.41
Sat Flow, veh/h	1781	1737	1585	1781	1737	0	0	1781	1585	1781	1549	197
Grp Volume(v), veh/h	153	201	0	56	216	0	0	258	181	159	0	310
Grp Sat Flow(s),veh/h/ln	1781	1737	1585	1781	1737	0	0	1781	1585	1781	0	1746
Q Serve(g_s), s	4.1	4.9	0.0	1.5	5.8	0.0	0.0	6.6	5.1	4.2	0.0	6.2
Cycle Q Clear(g_c), s	4.1	4.9	0.0	1.5	5.8	0.0	0.0	6.6	5.1	4.2	0.0	6.2
Prop In Lane	1.00		1.00	1.00		0.00	0.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	198	397		97	298	0	0	354	315	206	0	713
V/C Ratio(X)	0.77	0.51		0.58	0.72	0.00	0.00	0.73	0.57	0.77	0.00	0.44
Avail Cap(c_a), veh/h	379	625		269	547	0	0	543	483	379	0	1067
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.1	16.5	0.0	22.6	19.2	0.0	0.0	18.4	17.7	21.0	0.0	10.4
Incr Delay (d2), s/veh	6.2	1.0	0.0	5.3	3.3	0.0	0.0	2.9	1.7	6.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.8	0.0	0.7	2.3	0.0	0.0	2.6	1.7	1.9	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.4	17.5	0.0	27.9	22.5	0.0	0.0	21.3	19.4	27.1	0.0	10.8
LnGrp LOS	C	B		C	C	A	A	C	B	C	A	B
Approach Vol, veh/h		354	A		272			439			469	
Approach Delay, s/veh		21.7			23.6			20.5			16.3	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	7.3	16.6	10.2	14.8	10.0	13.8		25.1
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	* 5.4		5.1
Max Green Setting (Gmax), s	7.4	17.6	10.4	14.9	10.4	* 15		29.9
Max Q Clear Time (g_c+I1), s	3.5	6.9	6.2	8.6	6.1	7.8		8.2
Green Ext Time (p_c), s	0.0	0.8	0.1	1.1	0.1	0.7		1.7

Intersection Summary	
HCM 6th Ctrl Delay	20.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	53	72	41	35	29	13	34	78	30	22	67	17
Future Vol, veh/h	53	72	41	35	29	13	34	78	30	22	67	17
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	79	45	38	32	14	37	86	33	24	74	19
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9	8.4	8.8	8.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	24%	32%	45%	21%
Vol Thru, %	55%	43%	38%	63%
Vol Right, %	21%	25%	17%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	142	166	77	106
LT Vol	34	53	35	22
Through Vol	78	72	29	67
RT Vol	30	41	13	17
Lane Flow Rate	156	182	85	116
Geometry Grp	1	1	1	1
Degree of Util (X)	0.201	0.233	0.113	0.152
Departure Headway (Hd)	4.628	4.596	4.787	4.698
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	774	779	746	761
Service Time	2.668	2.635	2.831	2.742
HCM Lane V/C Ratio	0.202	0.234	0.114	0.152
HCM Control Delay	8.8	9	8.4	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.9	0.4	0.5

Lane Group	EBT	EBR	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	74	80	36	47	470	505
v/c Ratio	0.13	0.14	0.08	0.10	0.20	0.25
Control Delay	14.6	3.6	13.0	16.4	4.3	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.6	3.6	13.0	16.4	4.3	8.8
Queue Length 50th (ft)	9	0	3	6	23	24
Queue Length 95th (ft)	47	18	25	36	48	95
Internal Link Dist (ft)	2546		191		2566	560
Turn Bay Length (ft)		100		160		
Base Capacity (vph)	1145	1038	911	810	3144	2722
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.08	0.04	0.06	0.15	0.19

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	0	74	17	7	9	43	432	0	0	420	44
Future Volume (veh/h)	68	0	74	17	7	9	43	432	0	0	420	44
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	1737	1737	1737	1737	1737
Adj Flow Rate, veh/h	74	0	80	18	8	10	47	470	0	0	457	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	11	11	11
Cap, veh/h	473	0	254	261	105	71	77	1657	0	0	904	95
Arrive On Green	0.16	0.00	0.16	0.16	0.16	0.16	0.04	0.50	0.00	0.00	0.30	0.30
Sat Flow, veh/h	1436	0	1585	490	655	441	1781	3387	0	0	3102	315
Grp Volume(v), veh/h	74	0	80	36	0	0	47	470	0	0	249	256
Grp Sat Flow(s),veh/h/ln	1436	0	1585	1586	0	0	1781	1650	0	0	1650	1680
Q Serve(g_s), s	0.7	0.0	1.3	0.0	0.0	0.0	0.8	2.4	0.0	0.0	3.7	3.7
Cycle Q Clear(g_c), s	1.2	0.0	1.3	0.5	0.0	0.0	0.8	2.4	0.0	0.0	3.7	3.7
Prop In Lane	1.00		1.00	0.50		0.28	1.00		0.00	0.00		0.19
Lane Grp Cap(c), veh/h	473	0	254	437	0	0	77	1657	0	0	495	504
V/C Ratio(X)	0.16	0.00	0.32	0.08	0.00	0.00	0.61	0.28	0.00	0.00	0.50	0.51
Avail Cap(c_a), veh/h	976	0	825	470	0	0	620	3300	0	0	1650	1680
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	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.9	0.0	11.0	10.7	0.0	0.0	13.9	4.3	0.0	0.0	8.5	8.6
Incr Delay (d2), s/veh	0.2	0.0	0.7	0.1	0.0	0.0	7.5	0.1	0.0	0.0	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.4	0.2	0.0	0.0	0.4	0.4	0.0	0.0	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.1	0.0	11.7	10.7	0.0	0.0	21.4	4.4	0.0	0.0	9.3	9.3
LnGrp LOS	B	A	B	B	A	A	C	A	A	A	A	A
Approach Vol, veh/h		154			36			517			505	
Approach Delay, s/veh		11.4			10.7			5.9			9.3	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		20.3		9.3	6.0	14.3		9.3				
Change Period (Y+Rc), s		5.4		4.6	* 4.7	5.4		4.6				
Max Green Setting (Gmax), s		29.6		15.4	* 10	29.6		5.4				
Max Q Clear Time (g_c+I1), s		4.4		3.3	2.8	5.7		2.5				
Green Ext Time (p_c), s		3.3		0.4	0.0	3.2		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			8.2									
HCM 6th LOS			A									

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	SBL	SEL	SET	NWT	NWR
Lane Group Flow (vph)	167	83	406	430	110
v/c Ratio	0.32	0.19	0.37	0.51	0.13
Control Delay	14.0	21.9	5.9	14.8	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	14.0	21.9	5.9	14.8	3.6
Queue Length 50th (ft)	23	21	44	98	0
Queue Length 95th (ft)	73	62	101	202	24
Internal Link Dist (ft)	2230		1578	1622	
Turn Bay Length (ft)					
Base Capacity (vph)	838	659	1463	1124	1051
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.20	0.13	0.28	0.38	0.10

Intersection Summary

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (veh/h)	71	74	72	353	374	96
Future Volume (veh/h)	71	74	72	353	374	96
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1870	1781	1781	1870
Adj Flow Rate, veh/h	82	85	83	406	430	110
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	2	8	8	2
Cap, veh/h	115	119	142	1027	619	551
Arrive On Green	0.14	0.14	0.08	0.58	0.35	0.35
Sat Flow, veh/h	818	848	1781	1781	1781	1585
Grp Volume(v), veh/h	168	0	83	406	430	110
Grp Sat Flow(s),veh/h/ln	1677	0	1781	1781	1781	1585
Q Serve(g_s), s	3.3	0.0	1.5	4.3	7.1	1.7
Cycle Q Clear(g_c), s	3.3	0.0	1.5	4.3	7.1	1.7
Prop In Lane	0.49	0.51	1.00			1.00
Lane Grp Cap(c), veh/h	235	0	142	1027	619	551
V/C Ratio(X)	0.72	0.00	0.58	0.40	0.69	0.20
Avail Cap(c_a), veh/h	755	0	516	1298	1298	1155
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	14.1	0.0	15.2	4.0	9.6	7.8
Incr Delay (d2), s/veh	4.1	0.0	3.8	0.2	1.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.7	0.7	2.1	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.1	0.0	18.9	4.2	11.0	8.0
LnGrp LOS	B	A	B	A	B	A
Approach Vol, veh/h	168			489	540	
Approach Delay, s/veh	18.1			6.7	10.4	
Approach LOS	B			A	B	

Timer - Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.8	17.0				24.8		9.4
Change Period (Y+Rc), s	5.1	5.1				5.1		4.6
Max Green Setting (Gmax), s	9.9	24.9				24.9		15.4
Max Q Clear Time (g_c+I1), s	3.5	9.1				6.3		5.3
Green Ext Time (p_c), s	0.1	2.8				2.4		0.3

Intersection Summary			
HCM 6th Ctrl Delay			10.0
HCM 6th LOS			A

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	0.5

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	19	7	5	424	474	45
Future Vol, veh/h	19	7	5	424	474	45
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	-	-	-	-	-
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	8	8	2
Mvmt Flow	21	8	5	461	515	49

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1011	540	564	0	-	0
Stage 1	540	-	-	-	-	-
Stage 2	471	-	-	-	-	-
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	265	542	1008	-	-	-
Stage 1	584	-	-	-	-	-
Stage 2	628	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	263	542	1008	-	-	-
Mov Cap-2 Maneuver	263	-	-	-	-	-
Stage 1	580	-	-	-	-	-
Stage 2	628	-	-	-	-	-

Approach	SB	SE	NW
HCM Control Delay, s	18	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SBLn1
Capacity (veh/h)	-	-	1008	-	305
HCM Lane V/C Ratio	-	-	0.005	-	0.093
HCM Control Delay (s)	-	-	8.6	0	18
HCM Lane LOS	-	-	A	A	C
HCM 95th %tile Q(veh)	-	-	0	-	0.3

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	126	157	82	465	34	494
v/c Ratio	0.34	0.38	0.26	0.29	0.11	0.37
Control Delay	14.7	24.1	30.5	16.2	29.7	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.7	24.1	30.5	16.2	29.7	20.4
Queue Length 50th (ft)	13	43	28	51	12	83
Queue Length 95th (ft)	63	110	80	142	41	152
Internal Link Dist (ft)	615	635		1224		2566
Turn Bay Length (ft)			135		135	
Base Capacity (vph)	769	698	413	1751	470	1783
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.22	0.20	0.27	0.07	0.28

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	27	82	33	56	55	75	397	30	31	441	14
Future Volume (veh/h)	7	27	82	33	56	55	75	397	30	31	441	14
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	1737	1737	1870	1737	1737
Adj Flow Rate, veh/h	8	29	89	36	61	60	82	432	33	34	479	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	2	11	11
Cap, veh/h	11	39	120	49	83	82	128	855	65	69	790	25
Arrive On Green	0.10	0.10	0.10	0.12	0.12	0.12	0.07	0.28	0.28	0.04	0.24	0.24
Sat Flow, veh/h	105	381	1169	397	673	662	1781	3108	237	1781	3267	102
Grp Volume(v), veh/h	126	0	0	157	0	0	82	229	236	34	242	252
Grp Sat Flow(s),veh/h/ln	1655	0	0	1731	0	0	1781	1650	1694	1781	1650	1719
Q Serve(g_s), s	3.3	0.0	0.0	3.9	0.0	0.0	2.0	5.1	5.2	0.8	5.7	5.8
Cycle Q Clear(g_c), s	3.3	0.0	0.0	3.9	0.0	0.0	2.0	5.1	5.2	0.8	5.7	5.8
Prop In Lane	0.06		0.71	0.23		0.38	1.00		0.14	1.00		0.06
Lane Grp Cap(c), veh/h	170	0	0	213	0	0	128	454	466	69	399	416
V/C Ratio(X)	0.74	0.00	0.00	0.74	0.00	0.00	0.64	0.50	0.51	0.49	0.61	0.61
Avail Cap(c_a), veh/h	679	0	0	593	0	0	352	996	1022	400	1041	1084
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.2	0.0	0.0	18.6	0.0	0.0	19.9	13.4	13.5	20.8	14.8	14.9
Incr Delay (d2), s/veh	6.3	0.0	0.0	4.9	0.0	0.0	5.2	0.9	0.9	5.4	1.5	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	1.6	0.0	0.0	0.9	1.7	1.8	0.4	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	0.0	0.0	23.5	0.0	0.0	25.1	14.3	14.3	26.2	16.3	16.3
LnGrp LOS	C	A	A	C	A	A	C	B	B	C	B	B
Approach Vol, veh/h		126			157			547			528	
Approach Delay, s/veh		25.5			23.5			15.9			16.9	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.4	17.5		9.6	7.9	16.1		10.5
Change Period (Y+Rc), s	* 4.7	5.4		5.1	* 4.7	5.4		5.1
Max Green Setting (Gmax), s	* 9.9	26.6		18.1	* 8.7	27.8		15.1
Max Q Clear Time (g_c+I1), s	2.8	7.2		5.3	4.0	7.8		5.9
Green Ext Time (p_c), s	0.0	2.7		0.5	0.1	2.9		0.5

Intersection Summary	
HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	NBT	SBT	SEL	SET	SER	NWL	NWT
Lane Group Flow (vph)	325	272	3	335	130	184	465
v/c Ratio	0.86	0.87	0.03	0.81	0.24	0.83	0.66
Control Delay	56.7	67.9	45.7	49.3	1.2	71.2	28.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.7	67.9	45.7	49.3	1.2	71.2	28.9
Queue Length 50th (ft)	179	163	2	191	0	111	213
Queue Length 95th (ft)	#341	#331	11	291	2	#242	#393
Internal Link Dist (ft)	479	5386		3214			2844
Turn Bay Length (ft)			220			220	
Base Capacity (vph)	414	315	95	525	623	226	717
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.86	0.03	0.64	0.21	0.81	0.65

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	124	95	80	91	152	7	3	308	120	169	369	59
Future Volume (veh/h)	124	95	80	91	152	7	3	308	120	169	369	59
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	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	135	103	87	99	165	8	3	335	130	184	401	64
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	8	2	2	8	8
Cap, veh/h	153	116	98	113	189	9	7	394	350	220	510	81
Arrive On Green	0.21	0.21	0.21	0.17	0.17	0.17	0.00	0.22	0.22	0.12	0.34	0.34
Sat Flow, veh/h	727	555	468	665	1109	54	1781	1781	1585	1781	1499	239
Grp Volume(v), veh/h	325	0	0	272	0	0	3	335	130	184	0	465
Grp Sat Flow(s),veh/h/ln	1750	0	0	1827	0	0	1781	1781	1585	1781	0	1738
Q Serve(g_s), s	15.6	0.0	0.0	12.5	0.0	0.0	0.1	15.6	6.0	8.7	0.0	20.8
Cycle Q Clear(g_c), s	15.6	0.0	0.0	12.5	0.0	0.0	0.1	15.6	6.0	8.7	0.0	20.8
Prop In Lane	0.42		0.27	0.36		0.03	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	367	0	0	311	0	0	7	394	350	220	0	591
V/C Ratio(X)	0.88	0.00	0.00	0.88	0.00	0.00	0.42	0.85	0.37	0.84	0.00	0.79
Avail Cap(c_a), veh/h	426	0	0	337	0	0	103	567	505	243	0	691
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.1	0.0	0.0	34.9	0.0	0.0	42.9	32.3	28.5	37.0	0.0	25.7
Incr Delay (d2), s/veh	17.6	0.0	0.0	20.7	0.0	0.0	34.6	8.3	0.7	20.5	0.0	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	0.0	0.0	6.9	0.0	0.0	0.1	7.0	2.1	4.7	0.0	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.7	0.0	0.0	55.6	0.0	0.0	77.5	40.6	29.2	57.5	0.0	30.8
LnGrp LOS	D	A	A	E	A	A	E	D	C	E	A	C
Approach Vol, veh/h		325			272			468			649	
Approach Delay, s/veh		50.7			55.6			37.7			38.4	
Approach LOS		D			E			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.5	16.0	25.6		21.2	5.7	35.9				
Change Period (Y+Rc), s		5.4	5.4	6.5		6.5	5.4	6.5				
Max Green Setting (Gmax), s		21.0	11.8	27.5		15.9	5.0	34.3				
Max Q Clear Time (g_c+I1), s		17.6	10.7	17.6		14.5	2.1	22.8				
Green Ext Time (p_c), s		0.6	0.0	1.5		0.2	0.0	1.9				

Intersection Summary		
HCM 6th Ctrl Delay		43.3
HCM 6th LOS		D

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	63	10	493	51	31	537
Future Vol, veh/h	63	10	493	51	31	537
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	-	-	-	10	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	11	2	2	11
Mvmt Flow	68	11	536	55	34	584

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	924	296	0	0	591	0
Stage 1	564	-	-	-	-	-
Stage 2	360	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	268	700	-	-	981	-
Stage 1	533	-	-	-	-	-
Stage 2	677	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	259	700	-	-	981	-
Mov Cap-2 Maneuver	384	-	-	-	-	-
Stage 1	533	-	-	-	-	-
Stage 2	653	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.9	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	409	981	-
HCM Lane V/C Ratio	-	-	0.194	0.034	-
HCM Control Delay (s)	-	-	15.9	8.8	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0.1	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	110	308	316	458	487	168
v/c Ratio	0.36	0.19	0.62	0.20	0.55	0.30
Control Delay	25.3	0.3	22.5	3.7	19.3	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.3	0.3	22.5	3.7	19.3	5.2
Queue Length 50th (ft)	30	0	84	24	67	0
Queue Length 95th (ft)	78	0	165	40	120	37
Internal Link Dist (ft)	1555			1250	2580	
Turn Bay Length (ft)			340			280
Base Capacity (vph)	378	1583	769	2642	1241	708
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.19	0.41	0.17	0.39	0.24

Intersection Summary

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	101	283	291	421	448	155
Future Volume (veh/h)	101	283	291	421	448	155
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1737	1737	1870
Adj Flow Rate, veh/h	110	0	316	458	487	168
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	11	11	2
Cap, veh/h	165		411	2072	845	406
Arrive On Green	0.09	0.00	0.23	0.63	0.26	0.26
Sat Flow, veh/h	1781	1585	1781	3387	3387	1585
Grp Volume(v), veh/h	110	0	316	458	487	168
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1650	1650	1585
Q Serve(g_s), s	2.2	0.0	6.0	2.2	4.7	3.2
Cycle Q Clear(g_c), s	2.2	0.0	6.0	2.2	4.7	3.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	165		411	2072	845	406
V/C Ratio(X)	0.67		0.77	0.22	0.58	0.41
Avail Cap(c_a), veh/h	459		932	3711	1517	729
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	15.8	0.0	13.0	2.9	11.7	11.2
Incr Delay (d2), s/veh	4.6	0.0	3.1	0.1	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	2.0	0.1	1.2	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.4	0.0	16.1	3.0	12.3	11.9
LnGrp LOS	C		B	A	B	B
Approach Vol, veh/h	110	A		774	655	
Approach Delay, s/veh	20.4			8.3	12.2	
Approach LOS	C			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		28.1		8.0	13.4	14.6
Change Period (Y+Rc), s		5.4		* 4.7	5.1	5.4
Max Green Setting (Gmax), s		40.6		* 9.3	18.9	16.6
Max Q Clear Time (g_c+I1), s		4.2		4.2	8.0	6.7
Green Ext Time (p_c), s		3.1		0.1	0.7	2.6

Intersection Summary			
HCM 6th Ctrl Delay			10.8
HCM 6th LOS			B

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	48	69	198	256	35	487	192	266	438
v/c Ratio	0.24	0.20	0.64	0.40	0.19	0.69	0.32	0.71	0.29
Control Delay	28.1	20.7	34.8	10.9	27.9	27.3	1.6	33.8	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.1	20.7	34.8	10.9	27.9	27.3	1.6	33.8	12.6
Queue Length 50th (ft)	17	8	69	14	12	87	0	90	44
Queue Length 95th (ft)	44	25	#151	43	35	#148	3	#189	100
Internal Link Dist (ft)		1219		1008		1659			1250
Turn Bay Length (ft)	400		215		225		225	250	
Base Capacity (vph)	201	343	334	670	184	757	615	425	1486
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.20	0.59	0.38	0.19	0.64	0.31	0.63	0.29

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	43	20	182	75	160	32	448	177	245	393	10
Future Volume (veh/h)	44	43	20	182	75	160	32	448	177	245	393	10
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	1737	1870	1870	1737	1737
Adj Flow Rate, veh/h	48	47	22	198	82	174	35	487	192	266	427	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	2	2	11	11
Cap, veh/h	85	226	99	248	316	282	68	647	311	324	1118	29
Arrive On Green	0.05	0.09	0.09	0.14	0.18	0.18	0.04	0.20	0.20	0.18	0.34	0.34
Sat Flow, veh/h	1781	2405	1053	1781	1777	1585	1781	3300	1585	1781	3287	85
Grp Volume(v), veh/h	48	34	35	198	82	174	35	487	192	266	214	224
Grp Sat Flow(s),veh/h/ln	1781	1777	1681	1781	1777	1585	1781	1650	1585	1781	1650	1722
Q Serve(g_s), s	1.4	0.9	1.0	5.7	2.1	5.4	1.0	7.4	5.9	7.6	5.2	5.2
Cycle Q Clear(g_c), s	1.4	0.9	1.0	5.7	2.1	5.4	1.0	7.4	5.9	7.6	5.2	5.2
Prop In Lane	1.00		0.63	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	85	167	158	248	316	282	68	647	311	324	561	585
V/C Ratio(X)	0.56	0.20	0.22	0.80	0.26	0.62	0.52	0.75	0.62	0.82	0.38	0.38
Avail Cap(c_a), veh/h	198	168	159	329	316	282	181	753	362	420	598	624
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.7	22.2	22.2	22.1	18.8	20.1	25.0	20.1	19.5	20.9	13.3	13.3
Incr Delay (d2), s/veh	5.7	0.6	0.7	9.7	0.4	4.0	6.0	3.6	2.4	9.7	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.4	0.4	2.8	0.8	2.0	0.5	2.8	2.1	3.6	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.4	22.8	22.9	31.7	19.2	24.1	31.0	23.7	21.9	30.5	13.7	13.7
LnGrp LOS	C	C	C	C	B	C	C	C	C	C	B	B
Approach Vol, veh/h		117			454			714			704	
Approach Delay, s/veh		26.0			26.6			23.6			20.1	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.7	15.8	12.1	10.4	7.1	23.4	7.6	14.8
Change Period (Y+Rc), s	5.1	5.4	* 4.7	5.4	5.1	5.4	5.1	5.4
Max Green Setting (Gmax), s	12.5	12.1	* 9.8	5.0	5.4	19.2	5.9	8.5
Max Q Clear Time (g_c+I1), s	9.6	9.4	7.7	3.0	3.0	7.2	3.4	7.4
Green Ext Time (p_c), s	0.2	1.0	0.1	0.0	0.0	1.9	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	23.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	82	32	61	73	4	814	35	600
v/c Ratio	0.23	0.07	0.18	0.16	0.01	0.47	0.11	0.33
Control Delay	24.2	0.3	24.6	0.7	24.5	11.8	24.7	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.2	0.3	24.6	0.7	24.5	11.8	24.7	9.4
Queue Length 50th (ft)	18	0	14	0	1	78	8	55
Queue Length 95th (ft)	65	0	53	0	9	171	36	122
Internal Link Dist (ft)	1059		999			1484		1659
Turn Bay Length (ft)		150			75		250	
Base Capacity (vph)	380	503	336	470	297	2004	309	2109
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.06	0.18	0.16	0.01	0.41	0.11	0.28

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	27	29	45	11	67	4	669	80	32	540	12
Future Volume (veh/h)	49	27	29	45	11	67	4	669	80	32	540	12
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	1737	1737	1870	1737	1737
Adj Flow Rate, veh/h	53	29	32	49	12	73	4	727	87	35	587	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	2	11	11
Cap, veh/h	100	55	135	132	32	145	10	1032	123	68	1255	28
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.01	0.35	0.35	0.04	0.38	0.38
Sat Flow, veh/h	1171	641	1585	1444	354	1585	1781	2968	355	1781	3301	73
Grp Volume(v), veh/h	82	0	32	61	0	73	4	404	410	35	293	307
Grp Sat Flow(s),veh/h/ln	1812	0	1585	1798	0	1585	1781	1650	1673	1781	1650	1724
Q Serve(g_s), s	1.9	0.0	0.8	1.4	0.0	1.9	0.1	9.4	9.4	0.9	5.9	5.9
Cycle Q Clear(g_c), s	1.9	0.0	0.8	1.4	0.0	1.9	0.1	9.4	9.4	0.9	5.9	5.9
Prop In Lane	0.65		1.00	0.80		1.00	1.00		0.21	1.00		0.04
Lane Grp Cap(c), veh/h	154	0	135	164	0	145	10	574	582	68	627	655
V/C Ratio(X)	0.53	0.00	0.24	0.37	0.00	0.51	0.41	0.70	0.71	0.52	0.47	0.47
Avail Cap(c_a), veh/h	262	0	229	231	0	204	205	876	888	213	872	911
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.4	0.0	18.9	18.9	0.0	19.2	21.9	12.5	12.5	20.9	10.3	10.3
Incr Delay (d2), s/veh	2.8	0.0	0.9	1.4	0.0	2.7	25.9	1.6	1.6	6.0	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.3	0.6	0.0	0.7	0.1	2.9	2.9	0.4	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.2	0.0	19.8	20.3	0.0	21.9	47.9	14.1	14.1	26.9	10.9	10.9
LnGrp LOS	C	A	B	C	A	C	D	B	B	C	B	B
Approach Vol, veh/h		114			134			818			635	
Approach Delay, s/veh		21.6			21.2			14.2			11.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.4	20.8		8.4	4.9	22.2		8.7
Change Period (Y+Rc), s	* 4.7	* 5.4		4.6	* 4.7	5.4		4.7
Max Green Setting (Gmax), s	* 5.3	* 24		6.4	* 5.1	23.4		5.7
Max Q Clear Time (g_c+I1), s	2.9	11.4		3.9	2.1	7.9		3.9
Green Ext Time (p_c), s	0.0	4.0		0.1	0.0	3.0		0.1

Intersection Summary	
HCM 6th Ctrl Delay	14.3
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	25.2
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	112	0	78	3	1	1	98	623	13	0	435	45
Future Vol, veh/h	112	0	78	3	1	1	98	623	13	0	435	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	11	2	2	11	2
Mvmt Flow	122	0	85	3	1	1	107	677	14	0	473	49
Number of Lanes	1	1	0	0	1	0	1	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	3	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	1	2
HCM Control Delay	14.2	12.4	31.2	20.5
HCM LOS	B	B	D	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	60%	0%	0%
Vol Thru, %	0%	100%	94%	0%	0%	20%	100%	76%
Vol Right, %	0%	0%	6%	0%	100%	20%	0%	24%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	98	415	221	112	78	5	290	190
LT Vol	98	0	0	112	0	3	0	0
Through Vol	0	415	208	0	0	1	290	145
RT Vol	0	0	13	0	78	1	0	45
Lane Flow Rate	107	451	240	122	85	5	315	207
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.22	0.89	0.46	0.303	0.182	0.014	0.663	0.416
Departure Headway (Hd)	7.449	7.096	6.899	8.971	7.746	9.488	7.572	7.247
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	483	510	523	401	463	377	479	498
Service Time	5.183	4.83	4.633	6.718	5.492	7.252	5.309	4.985
HCM Lane V/C Ratio	0.222	0.884	0.459	0.304	0.184	0.013	0.658	0.416
HCM Control Delay	12.3	44	15.4	15.6	12.2	12.4	24	15.1
HCM Lane LOS	B	E	C	C	B	B	C	C
HCM 95th-tile Q	0.8	10	2.4	1.3	0.7	0	4.8	2

Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	148	432	73	192	347	749	120	296	103
v/c Ratio	0.68	0.83	0.19	0.79	0.55	0.85	0.34	0.88	0.23
Control Delay	48.7	46.1	1.1	56.6	22.8	33.5	29.1	57.7	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.7	46.1	1.1	56.6	22.8	33.5	29.1	57.7	2.2
Queue Length 50th (ft)	67	104	0	88	51	150	48	135	0
Queue Length 95th (ft)	#144	#178	0	#191	92	#241	95	#269	10
Internal Link Dist (ft)		625			462	348		628	
Turn Bay Length (ft)	250		80	130			225		325
Base Capacity (vph)	229	525	377	248	627	915	359	347	458
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.82	0.19	0.77	0.55	0.82	0.33	0.85	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	136	397	67	177	205	114	35	428	226	110	272	95
Future Volume (veh/h)	136	397	67	177	205	114	35	428	226	110	272	95
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	1737	1737	1737	1870	1737	1870
Adj Flow Rate, veh/h	148	432	0	192	223	124	38	465	0	120	296	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	11	11	11	2	11	2
Cap, veh/h	187	545		236	404	216	50	645		360	351	
Arrive On Green	0.11	0.15	0.00	0.13	0.18	0.18	0.21	0.21	0.00	0.20	0.20	0.00
Sat Flow, veh/h	1781	3554	1585	1781	2236	1196	244	3218	0	1781	1737	1585
Grp Volume(v), veh/h	148	432	0	192	175	172	269	234	0	120	296	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1655	1725	1650	0	1781	1737	1585
Q Serve(g_s), s	5.3	7.6	0.0	6.8	5.8	6.2	9.5	8.5	0.0	3.7	10.7	0.0
Cycle Q Clear(g_c), s	5.3	7.6	0.0	6.8	5.8	6.2	9.5	8.5	0.0	3.7	10.7	0.0
Prop In Lane	1.00		1.00	1.00		0.72	0.14		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	187	545		236	321	299	355	340		360	351	
V/C Ratio(X)	0.79	0.79		0.81	0.55	0.57	0.76	0.69		0.33	0.84	
Avail Cap(c_a), veh/h	260	596		282	321	299	512	490		408	398	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.4	26.5	0.0	27.4	24.2	24.3	24.3	23.9	0.0	22.2	24.9	0.0
Incr Delay (d2), s/veh	10.5	6.7	0.0	14.2	1.9	2.6	3.9	2.5	0.0	0.5	13.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	3.5	0.0	3.6	2.4	2.4	4.0	3.4	0.0	1.5	5.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.9	33.2	0.0	41.6	26.1	27.0	28.2	26.4	0.0	22.7	38.8	0.0
LnGrp LOS	D	C		D	C	C	C	C		C	D	
Approach Vol, veh/h		580	A		539			503	A		416	A
Approach Delay, s/veh		34.6			31.9			27.3			34.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	18.1	13.3	15.4	18.2	11.5	17.1
Change Period (Y+Rc), s	* 4.7	* 4.7	* 5.4	5.1	* 4.7	5.4
Max Green Setting (Gmax), s	* 19	* 10	* 11	14.9	* 9.5	11.4
Max Q Clear Time (g_c+I1), s	11.5	8.8	9.6	12.7	7.3	8.2
Green Ext Time (p_c), s	1.8	0.1	0.4	0.5	0.1	0.6

Intersection Summary	
HCM 6th Ctrl Delay	32.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	103	178	12	215	620	489	70
v/c Ratio	0.64	0.53	0.07	0.38	1.04	0.86	0.12
Control Delay	45.2	11.0	17.5	17.1	71.6	36.0	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.2	11.0	17.5	17.1	71.6	36.0	1.5
Queue Length 50th (ft)	33	0	1	54	~232	146	0
Queue Length 95th (ft)	#95	47	14	103	#399	#292	8
Internal Link Dist (ft)		1120	841		1106	348	
Turn Bay Length (ft)	100						275
Base Capacity (vph)	163	341	174	565	595	595	592
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.52	0.07	0.38	1.04	0.82	0.12

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	1	163	4	1	6	198	570	0	3	447	64
Future Volume (veh/h)	95	1	163	4	1	6	198	570	0	3	447	64
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	103	1	177	4	1	7	215	620	0	3	486	70
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	283	1	185	92	39	58	574	602	0	3	554	473
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.32	0.32	0.00	0.30	0.30	0.30
Sat Flow, veh/h	1407	9	1577	24	329	493	1781	1870	0	11	1858	1585
Grp Volume(v), veh/h	103	0	178	12	0	0	215	620	0	489	0	70
Grp Sat Flow(s),veh/h/ln	1407	0	1586	846	0	0	1781	1870	0	1870	0	1585
Q Serve(g_s), s	0.0	0.0	6.0	0.0	0.0	0.0	5.0	17.3	0.0	13.4	0.0	1.7
Cycle Q Clear(g_c), s	4.2	0.0	6.0	6.0	0.0	0.0	5.0	17.3	0.0	13.4	0.0	1.7
Prop In Lane	1.00		0.99	0.33		0.58	1.00		0.00	0.01		1.00
Lane Grp Cap(c), veh/h	283	0	186	189	0	0	574	602	0	558	0	473
V/C Ratio(X)	0.36	0.00	0.96	0.06	0.00	0.00	0.37	1.03	0.00	0.88	0.00	0.15
Avail Cap(c_a), veh/h	283	0	186	189	0	0	574	602	0	602	0	510
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	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.8	0.0	23.6	21.2	0.0	0.0	14.0	18.2	0.0	17.9	0.0	13.8
Incr Delay (d2), s/veh	0.8	0.0	53.3	0.1	0.0	0.0	0.4	44.4	0.0	13.1	0.0	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	4.8	0.1	0.0	0.0	1.8	13.9	0.0	7.0	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	0.0	76.9	21.3	0.0	0.0	14.4	62.6	0.0	31.0	0.0	14.0
LnGrp LOS	C	A	E	C	A	A	B	F	A	C	A	B
Approach Vol, veh/h		281			12			835			559	
Approach Delay, s/veh		57.4			21.3			50.2			28.9	
Approach LOS		E			C			D			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.0		11.0		20.7		11.0				
Change Period (Y+Rc), s		* 4.7		* 4.7		4.7		* 4.7				
Max Green Setting (Gmax), s		* 17		* 6.3		17.3		* 6.3				
Max Q Clear Time (g_c+I1), s		19.3		8.0		15.4		8.0				
Green Ext Time (p_c), s		0.0		0.0		0.7		0.0				

Intersection Summary			
HCM 6th Ctrl Delay			44.1
HCM 6th LOS			D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	207	327	21	143	312	138	340	292	161	114
v/c Ratio	0.62	0.23	0.14	0.48	0.60	0.53	0.54	0.55	0.38	0.21
Control Delay	33.1	8.8	32.4	30.5	9.1	34.4	26.8	30.0	27.1	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.1	8.8	32.4	30.5	9.1	34.4	26.8	30.0	27.1	0.8
Queue Length 50th (ft)	73	24	8	51	0	49	61	54	57	0
Queue Length 95th (ft)	145	62	29	105	61	108	105	98	116	0
Internal Link Dist (ft)		676		1203			944		1106	
Turn Bay Length (ft)	210		80			190		195		100
Base Capacity (vph)	419	1485	146	398	584	302	780	586	460	580
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.22	0.14	0.36	0.53	0.46	0.44	0.50	0.35	0.20

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	192	109	19	132	287	127	286	27	269	148	105
Future Volume (veh/h)	190	192	109	19	132	287	127	286	27	269	148	105
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	207	209	118	21	143	312	138	311	29	292	161	114
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	263	782	423	45	428	363	179	479	44	426	315	267
Arrive On Green	0.15	0.35	0.35	0.03	0.23	0.23	0.10	0.15	0.15	0.12	0.17	0.17
Sat Flow, veh/h	1781	2225	1205	1781	1870	1585	1781	3288	305	3456	1870	1585
Grp Volume(v), veh/h	207	165	162	21	143	312	138	167	173	292	161	114
Grp Sat Flow(s),veh/h/ln	1781	1777	1653	1781	1870	1585	1781	1777	1816	1728	1870	1585
Q Serve(g_s), s	6.1	3.6	3.8	0.6	3.5	10.2	4.1	4.8	4.9	4.4	4.2	3.5
Cycle Q Clear(g_c), s	6.1	3.6	3.8	0.6	3.5	10.2	4.1	4.8	4.9	4.4	4.2	3.5
Prop In Lane	1.00		0.73	1.00		1.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	263	624	581	45	428	363	179	259	264	426	315	267
V/C Ratio(X)	0.79	0.26	0.28	0.47	0.33	0.86	0.77	0.65	0.65	0.69	0.51	0.43
Avail Cap(c_a), veh/h	471	742	690	165	446	378	339	437	446	658	460	390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.2	12.6	12.6	26.0	17.4	20.0	23.7	21.8	21.8	22.7	20.5	20.2
Incr Delay (d2), s/veh	5.2	0.2	0.3	7.5	0.5	17.4	6.9	2.7	2.7	2.0	1.3	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	1.3	1.3	0.3	1.4	5.0	1.9	2.0	2.1	1.8	1.8	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.4	12.8	12.9	33.6	17.9	37.5	30.7	24.5	24.6	24.7	21.7	21.2
LnGrp LOS	C	B	B	C	B	D	C	C	C	C	C	C
Approach Vol, veh/h		534			476			478			567	
Approach Delay, s/veh		18.5			31.4			26.3			23.2	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.4	12.6	6.1	24.1	10.1	13.8	12.7	17.5
Change Period (Y+Rc), s	* 4.7	* 4.7	* 4.7	* 5.1	* 4.7	* 4.7	* 4.7	5.1
Max Green Setting (Gmax), s	* 10	* 13	* 5	* 23	* 10	* 13	* 14	12.9
Max Q Clear Time (g_c+I1), s	6.4	6.9	2.6	5.8	6.1	6.2	8.1	12.2
Green Ext Time (p_c), s	0.4	1.0	0.0	1.7	0.1	0.7	0.3	0.2

Intersection Summary			
HCM 6th Ctrl Delay			24.6
HCM 6th LOS			C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	NBT	SBL	SBT	SBR	SEL	SET	NWL	NWT
Lane Group Flow (vph)	173	52	164	104	37	476	3	444
v/c Ratio	0.28	0.16	0.27	0.24	0.15	0.44	0.01	0.49
Control Delay	21.6	22.4	21.8	1.7	25.3	15.4	25.3	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.6	22.4	21.8	1.7	25.3	15.4	25.3	19.7
Queue Length 50th (ft)	20	12	20	0	9	48	1	50
Queue Length 95th (ft)	56	45	54	5	38	124	8	125
Internal Link Dist (ft)	790		516			3919		2409
Turn Bay Length (ft)		150		65	165		405	
Base Capacity (vph)	1657	678	1280	724	281	1088	445	1071
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.08	0.13	0.14	0.13	0.44	0.01	0.41

Intersection Summary

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	100	54	5	48	151	96	34	337	101	3	392	17
Future Volume (veh/h)	100	54	5	48	151	96	34	337	101	3	392	17
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	1781	1870	1870	1870	1870	1870	1781	1781
Adj Flow Rate, veh/h	109	59	5	52	164	104	37	366	110	3	426	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	8	2	2	2	2	2	8	8
Cap, veh/h	190	182	15	239	455	213	75	634	188	7	652	27
Arrive On Green	0.11	0.11	0.11	0.13	0.13	0.13	0.04	0.23	0.23	0.00	0.20	0.20
Sat Flow, veh/h	1781	1700	144	1781	3385	1585	1781	2702	801	1781	3309	140
Grp Volume(v), veh/h	109	0	64	52	164	104	37	239	237	3	217	227
Grp Sat Flow(s),veh/h/ln	1781	0	1844	1781	1692	1585	1781	1777	1726	1781	1692	1756
Q Serve(g_s), s	2.4	0.0	1.3	1.1	1.8	2.5	0.8	4.9	5.1	0.1	4.9	4.9
Cycle Q Clear(g_c), s	2.4	0.0	1.3	1.1	1.8	2.5	0.8	4.9	5.1	0.1	4.9	4.9
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.46	1.00		0.08
Lane Grp Cap(c), veh/h	190	0	197	239	455	213	75	417	405	7	333	346
V/C Ratio(X)	0.57	0.00	0.32	0.22	0.36	0.49	0.50	0.57	0.58	0.41	0.65	0.65
Avail Cap(c_a), veh/h	900	0	932	712	1352	633	296	423	411	467	566	588
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	17.7	0.0	17.2	16.0	16.4	16.7	19.5	14.1	14.1	20.6	15.4	15.4
Incr Delay (d2), s/veh	2.7	0.0	0.9	0.4	0.5	1.7	5.0	1.8	2.1	33.1	2.2	2.1
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	1.0	0.0	0.5	0.4	0.7	0.8	0.4	1.5	1.6	0.1	1.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.3	0.0	18.1	16.5	16.8	18.4	24.5	15.9	16.2	53.7	17.5	17.5
LnGrp LOS	C	A	B	B	B	B	C	B	B	D	B	B
Approach Vol, veh/h		173			320			513			447	
Approach Delay, s/veh		19.5			17.3			16.6			17.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		9.8	5.3	16.3		10.2	6.8	14.7				
Change Period (Y+Rc), s		5.4	5.1	6.5		4.6	5.1	6.5				
Max Green Setting (Gmax), s		21.0	10.9	9.9		16.6	6.9	13.9				
Max Q Clear Time (g_c+I1), s		4.4	2.1	7.1		4.5	2.8	6.9				
Green Ext Time (p_c), s		0.7	0.0	0.7		1.2	0.0	1.2				

Intersection Summary			
HCM 6th Ctrl Delay			17.5
HCM 6th LOS			B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	2.8

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	209	11	65	239	1	33	1	57	1	1	0
Future Vol, veh/h	0	209	11	65	239	1	33	1	57	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	0	238	13	74	272	1	38	1	65	1	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	273	0	0	251	0	0	666	666	245	699	672	273
Stage 1	-	-	-	-	-	-	245	245	-	421	421	-
Stage 2	-	-	-	-	-	-	421	421	-	278	251	-
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	1290	-	-	1314	-	-	373	380	794	354	377	766
Stage 1	-	-	-	-	-	-	759	703	-	610	589	-
Stage 2	-	-	-	-	-	-	610	589	-	728	699	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1290	-	-	1314	-	-	353	355	794	308	352	766
Mov Cap-2 Maneuver	-	-	-	-	-	-	353	355	-	308	352	-
Stage 1	-	-	-	-	-	-	759	703	-	610	550	-
Stage 2	-	-	-	-	-	-	569	550	-	668	699	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0	1.7	13.2	16
HCM LOS			B	C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	541	1314	-	-	1290	-	-	329
HCM Lane V/C Ratio	0.191	0.056	-	-	-	-	-	0.007
HCM Control Delay (s)	13.2	7.9	0	-	0	-	-	16
HCM Lane LOS	B	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	0.7	0.2	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	2	49	42	221	251	1
Future Vol, veh/h	2	49	42	221	251	1
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	8	8	2
Mvmt Flow	2	57	49	257	292	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	648	293	293	0	-	0
Stage 1	293	-	-	-	-	-
Stage 2	355	-	-	-	-	-
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	435	746	1269	-	-	-
Stage 1	757	-	-	-	-	-
Stage 2	710	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	415	746	1269	-	-	-
Mov Cap-2 Maneuver	415	-	-	-	-	-
Stage 1	723	-	-	-	-	-
Stage 2	710	-	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s	10.4	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWR	WBLn1	SEL	SET
Capacity (veh/h)	-	-	723	1269	-
HCM Lane V/C Ratio	-	-	0.082	0.038	-
HCM Control Delay (s)	-	-	10.4	8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	29	14	36	23	1	19	51	24	4	49	2
Future Vol, veh/h	3	29	14	36	23	1	19	51	24	4	49	2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	32	16	40	26	1	21	57	27	4	54	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.9	7.7	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	7%	60%	7%
Vol Thru, %	54%	63%	38%	89%
Vol Right, %	26%	30%	2%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	46	60	55
LT Vol	19	3	36	4
Through Vol	51	29	23	49
RT Vol	24	14	1	2
Lane Flow Rate	104	51	67	61
Geometry Grp	1	1	1	1
Degree of Util (X)	0.118	0.06	0.081	0.071
Departure Headway (Hd)	4.071	4.203	4.37	4.211
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	867	857	807	837
Service Time	2.158	2.203	2.465	2.306
HCM Lane V/C Ratio	0.12	0.06	0.083	0.073
HCM Control Delay	7.7	7.5	7.9	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.2	0.3	0.2

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	23	3	41	0	4	0	13	123	0	1	137	26
Future Vol, veh/h	23	3	41	0	4	0	13	123	0	1	137	26
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	3	48	0	5	0	15	143	0	1	159	30
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	7.8	8.3	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	34%	0%	1%
Vol Thru, %	90%	4%	100%	84%
Vol Right, %	0%	61%	0%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	136	67	4	164
LT Vol	13	23	0	1
Through Vol	123	3	4	137
RT Vol	0	41	0	26
Lane Flow Rate	158	78	5	191
Geometry Grp	1	1	1	1
Degree of Util (X)	0.186	0.095	0.006	0.217
Departure Headway (Hd)	4.243	4.402	4.793	4.105
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	832	819	751	860
Service Time	2.341	2.402	2.796	2.201
HCM Lane V/C Ratio	0.19	0.095	0.007	0.222
HCM Control Delay	8.3	7.9	7.8	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.3	0	0.8

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	16	66	49	24	6	40	88	34	3	118	10
Future Vol, veh/h	3	16	66	49	24	6	40	88	34	3	118	10
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	21	86	64	31	8	52	114	44	4	153	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	8.3	9	9.5	8.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	25%	4%	62%	5%	0%
Vol Thru, %	54%	19%	30%	95%	86%
Vol Right, %	21%	78%	8%	0%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	162	85	79	62	69
LT Vol	40	3	49	3	0
Through Vol	88	16	24	59	59
RT Vol	34	66	6	0	10
Lane Flow Rate	210	110	103	81	90
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.273	0.139	0.144	0.118	0.128
Departure Headway (Hd)	4.679	4.519	5.054	5.259	5.132
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	766	789	707	680	696
Service Time	2.725	2.568	3.104	3.007	2.881
HCM Lane V/C Ratio	0.274	0.139	0.146	0.119	0.129
HCM Control Delay	9.5	8.3	9	8.7	8.6
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	1.1	0.5	0.5	0.4	0.4

Intersection	
Int Delay, s/veh	2.2

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	72	29	5	221	226	74
Future Vol, veh/h	72	29	5	221	226	74
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	-	-	-	-	-
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	8	8	2
Mvmt Flow	79	32	5	243	248	81

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	542	289	329	0	-	0
Stage 1	289	-	-	-	-	-
Stage 2	253	-	-	-	-	-
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	501	750	1231	-	-	-
Stage 1	760	-	-	-	-	-
Stage 2	789	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	498	750	1231	-	-	-
Mov Cap-2 Maneuver	498	-	-	-	-	-
Stage 1	756	-	-	-	-	-
Stage 2	789	-	-	-	-	-

Approach	SB	SE	NW
HCM Control Delay, s	13.2	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SBLn1
Capacity (veh/h)	-	-	1231	-	551
HCM Lane V/C Ratio	-	-	0.004	-	0.201
HCM Control Delay (s)	-	-	7.9	0	13.2
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0	-	0.7

Intersection	
Int Delay, s/veh	70.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	331	143	157	267	150	168
Future Vol, veh/h	331	143	157	267	150	168
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	399	172	189	322	181	202

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	571	0	1185	485
Stage 1	-	-	-	-	485	-
Stage 2	-	-	-	-	700	-
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	-	-	1002	-	209	582
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	493	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1002	-	~ 161	582
Mov Cap-2 Maneuver	-	-	-	-	~ 161	-
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	380	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.5	266.2
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	261	-	-	1002	-
HCM Lane V/C Ratio	1.468	-	-	0.189	-
HCM Control Delay (s)	266.2	-	-	9.4	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	21.8	-	-	0.7	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Intersection Delay, s/veh	156
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Vol, veh/h	40	208	248	43	190	56	39	216	38	198	214	25
Future Vol, veh/h	40	208	248	43	190	56	39	216	38	198	214	25
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
Heavy Vehicles, %	2	2	2	2	2	2	2	8	2	2	8	2
Mvmt Flow	48	248	295	51	226	67	46	257	45	236	255	30
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	1

Approach	EB	WB	SE	NW
Opposing Approach	WB	EB	NW	SE
Opposing Lanes	2	1	2	1
Conflicting Approach Left	SE	NW	WB	EB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NW	SE	EB	WB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	268.3	36.1	69.6	165.8
HCM LOS	F	E	F	F

Lane	NWLn1	NWLn2	EBLn1	WBLn1	WBLn2	SELn1
Vol Left, %	48%	0%	8%	18%	0%	13%
Vol Thru, %	52%	0%	42%	82%	0%	74%
Vol Right, %	0%	100%	50%	0%	100%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	412	25	496	233	56	293
LT Vol	198	0	40	43	0	39
Through Vol	214	0	208	190	0	216
RT Vol	0	25	248	0	56	38
Lane Flow Rate	490	30	590	277	67	349
Geometry Grp	7	7	6	7	7	6
Degree of Util (X)	1.275	0.07	1.508	0.737	0.162	0.92
Departure Headway (Hd)	10.704	9.821	10.024	11.644	10.803	11.967
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	343	367	366	313	334	307
Service Time	8.404	7.521	8.024	9.344	8.503	9.967
HCM Lane V/C Ratio	1.429	0.082	1.612	0.885	0.201	1.137
HCM Control Delay	175.1	13.3	268.3	41	15.6	69.6
HCM Lane LOS	F	B	F	E	C	F
HCM 95th-tile Q	19.7	0.2	29.7	5.5	0.6	8.8

Intersection	
Intersection Delay, s/veh	54.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	61	114	62	148	112	17	71	164	97	23	200	67
Future Vol, veh/h	61	114	62	148	112	17	71	164	97	23	200	67
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	78	146	79	190	144	22	91	210	124	29	256	86
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	36.1	50.8	72.9	52
HCM LOS	E	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	26%	53%	8%
Vol Thru, %	49%	48%	40%	69%
Vol Right, %	29%	26%	6%	23%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	332	237	277	290
LT Vol	71	61	148	23
Through Vol	164	114	112	200
RT Vol	97	62	17	67
Lane Flow Rate	426	304	355	372
Geometry Grp	1	1	1	1
Degree of Util (X)	0.998	0.763	0.881	0.895
Departure Headway (Hd)	8.438	9.041	8.932	8.667
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	430	398	405	416
Service Time	6.519	7.133	7.02	6.755
HCM Lane V/C Ratio	0.991	0.764	0.877	0.894
HCM Control Delay	72.9	36.1	50.8	52
HCM Lane LOS	F	E	F	F
HCM 95th-tile Q	12.5	6.3	8.9	9.4

Intersection	
Intersection Delay, s/veh	17.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	107	131	25	42	140	41	37	137	31	22	85	61
Future Vol, veh/h	107	131	25	42	140	41	37	137	31	22	85	61
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	147	179	34	58	192	56	51	188	42	30	116	84
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	20	16.8	16.5	14.4
HCM LOS	C	C	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	41%	19%	13%
Vol Thru, %	67%	50%	63%	51%
Vol Right, %	15%	10%	18%	36%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	205	263	223	168
LT Vol	37	107	42	22
Through Vol	137	131	140	85
RT Vol	31	25	41	61
Lane Flow Rate	281	360	305	230
Geometry Grp	1	1	1	1
Degree of Util (X)	0.513	0.636	0.542	0.421
Departure Headway (Hd)	6.58	6.355	6.388	6.588
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	545	566	562	543
Service Time	4.656	4.426	4.462	4.669
HCM Lane V/C Ratio	0.516	0.636	0.543	0.424
HCM Control Delay	16.5	20	16.8	14.4
HCM Lane LOS	C	C	C	B
HCM 95th-tile Q	2.9	4.5	3.2	2.1

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	33	5	103	4	5	1	40	101	3	0	149	30
Future Vol, veh/h	33	5	103	4	5	1	40	101	3	0	149	30
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	42	6	132	5	6	1	51	129	4	0	191	38
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.9	8.3	9.2	9.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	28%	23%	40%	0%
Vol Thru, %	70%	4%	50%	83%
Vol Right, %	2%	73%	10%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	144	141	10	179
LT Vol	40	33	4	0
Through Vol	101	5	5	149
RT Vol	3	103	1	30
Lane Flow Rate	185	181	13	229
Geometry Grp	1	1	1	1
Degree of Util (X)	0.24	0.226	0.018	0.287
Departure Headway (Hd)	4.683	4.506	5.14	4.498
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	764	795	693	796
Service Time	2.724	2.545	3.195	2.535
HCM Lane V/C Ratio	0.242	0.228	0.019	0.288
HCM Control Delay	9.2	8.9	8.3	9.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.9	0.9	0.1	1.2

Lane Group	NBL	NBT	NBR	SBL	SBT	SET	SER	NWL	NWT
Lane Group Flow (vph)	241	364	284	52	428	359	239	231	350
v/c Ratio	1.03	0.67	0.46	0.38	1.16	0.89	0.45	0.83	0.44
Control Delay	102.5	31.6	11.6	39.8	126.2	53.5	7.9	56.5	14.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	102.5	31.6	11.6	39.8	126.2	53.5	7.9	56.5	14.6
Queue Length 50th (ft)	~119	153	38	23	~232	154	8	101	94
Queue Length 95th (ft)	#230	#264	93	52	#365	#270	52	#196	146
Internal Link Dist (ft)		639			101	192			1578
Turn Bay Length (ft)			60	110			100	190	
Base Capacity (vph)	234	542	623	139	370	417	541	283	810
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.67	0.46	0.37	1.16	0.86	0.44	0.82	0.43

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	205	309	241	44	364	0	0	305	203	196	240	58
Future Volume (veh/h)	205	309	241	44	364	0	0	305	203	196	240	58
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	1737	1870	1870	1737	0	0	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	241	364	0	52	428	0	0	359	239	231	282	68
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	11	2	2	11	0	0	8	2	2	8	8
Cap, veh/h	233	522		80	373	0	0	405	360	272	616	149
Arrive On Green	0.13	0.30	0.00	0.04	0.21	0.00	0.00	0.23	0.23	0.15	0.44	0.44
Sat Flow, veh/h	1781	1737	1585	1781	1737	0	0	1781	1585	1781	1387	334
Grp Volume(v), veh/h	241	364	0	52	428	0	0	359	239	231	0	350
Grp Sat Flow(s),veh/h/ln	1781	1737	1585	1781	1737	0	0	1781	1585	1781	0	1721
Q Serve(g_s), s	9.4	13.3	0.0	2.1	15.4	0.0	0.0	14.0	9.8	9.1	0.0	10.2
Cycle Q Clear(g_c), s	9.4	13.3	0.0	2.1	15.4	0.0	0.0	14.0	9.8	9.1	0.0	10.2
Prop In Lane	1.00		1.00	1.00		0.00	0.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	233	522		80	373	0	0	405	360	272	0	764
V/C Ratio(X)	1.03	0.70		0.65	1.15	0.00	0.00	0.89	0.66	0.85	0.00	0.46
Avail Cap(c_a), veh/h	233	522		139	373	0	0	419	373	283	0	789
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.2	22.2	0.0	33.7	28.2	0.0	0.0	26.8	25.2	29.6	0.0	13.9
Incr Delay (d2), s/veh	67.8	4.0	0.0	8.5	93.5	0.0	0.0	19.6	4.2	20.3	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	5.7	0.0	1.1	15.7	0.0	0.0	7.6	3.9	5.2	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	99.0	26.3	0.0	42.2	121.7	0.0	0.0	46.4	29.4	49.9	0.0	14.4
LnGrp LOS	F	C		D	F	A	A	D	C	D	A	B
Approach Vol, veh/h		605	A		480			598			581	
Approach Delay, s/veh		55.2			113.1			39.6			28.5	
Approach LOS		E			F			D			C	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	7.8	27.0	15.6	21.4	14.0	20.8		37.0
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	* 5.4		5.1
Max Green Setting (Gmax), s	5.6	18.4	11.4	16.9	9.4	* 15		32.9
Max Q Clear Time (g_c+I1), s	4.1	15.3	11.1	16.0	11.4	17.4		12.2
Green Ext Time (p_c), s	0.0	0.6	0.0	0.3	0.0	0.0		2.0

Intersection Summary	
HCM 6th Ctrl Delay	56.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	169.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	108	66	112	111	94	64	162	121	134	224	57
Future Vol, veh/h	30	108	66	112	111	94	64	162	121	134	224	57
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	157	96	162	161	136	93	235	175	194	325	83
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	47.5	127.2	162	269.3
HCM LOS	E	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	15%	35%	32%
Vol Thru, %	47%	53%	35%	54%
Vol Right, %	35%	32%	30%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	347	204	317	415
LT Vol	64	30	112	134
Through Vol	162	108	111	224
RT Vol	121	66	94	57
Lane Flow Rate	503	296	459	601
Geometry Grp	1	1	1	1
Degree of Util (X)	1.24	0.777	1.142	1.509
Departure Headway (Hd)	10.704	12.221	10.888	10.189
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	342	299	335	361
Service Time	8.704	10.221	8.888	8.189
HCM Lane V/C Ratio	1.471	0.99	1.37	1.665
HCM Control Delay	162	47.5	127.2	269.3
HCM Lane LOS	F	E	F	F
HCM 95th-tile Q	18.5	6	15.2	29.3

Lane Group	EBT	EBR	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	195	307	11	227	773	917
v/c Ratio	0.68	0.54	0.03	0.77	0.38	0.72
Control Delay	37.2	7.2	0.1	48.5	6.4	19.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.2	7.2	0.1	48.5	6.4	19.5
Queue Length 50th (ft)	71	0	0	90	71	153
Queue Length 95th (ft)	126	41	0	#185	88	186
Internal Link Dist (ft)	2546		191		2566	560
Turn Bay Length (ft)		100		160		
Base Capacity (vph)	352	628	443	298	2374	1578
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.49	0.02	0.76	0.33	0.58

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	0	252	7	0	2	186	634	0	0	639	113
Future Volume (veh/h)	160	0	252	7	0	2	186	634	0	0	639	113
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	1737	1737	1737	1737	1737
Adj Flow Rate, veh/h	195	0	307	9	0	2	227	773	0	0	779	138
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	11	11	11
Cap, veh/h	469	0	364	227	11	28	276	1980	0	0	1022	181
Arrive On Green	0.23	0.00	0.23	0.23	0.00	0.23	0.15	0.60	0.00	0.00	0.36	0.36
Sat Flow, veh/h	1507	0	1585	502	49	122	1781	3387	0	0	2888	496
Grp Volume(v), veh/h	195	0	307	11	0	0	227	773	0	0	459	458
Grp Sat Flow(s),veh/h/ln	1507	0	1585	673	0	0	1781	1650	0	0	1650	1648
Q Serve(g_s), s	0.0	0.0	10.8	0.1	0.0	0.0	7.2	7.2	0.0	0.0	14.3	14.3
Cycle Q Clear(g_c), s	6.2	0.0	10.8	6.3	0.0	0.0	7.2	7.2	0.0	0.0	14.3	14.3
Prop In Lane	1.00		1.00	0.82		0.18	1.00		0.00	0.00		0.30
Lane Grp Cap(c), veh/h	469	0	364	266	0	0	276	1980	0	0	602	601
V/C Ratio(X)	0.42	0.00	0.84	0.04	0.00	0.00	0.82	0.39	0.00	0.00	0.76	0.76
Avail Cap(c_a), veh/h	516	0	416	266	0	0	313	1980	0	0	833	832
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	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	19.8	0.0	21.6	17.8	0.0	0.0	24.0	6.1	0.0	0.0	16.4	16.4
Incr Delay (d2), s/veh	0.6	0.0	13.2	0.1	0.0	0.0	14.6	0.1	0.0	0.0	2.8	2.8
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	2.2	0.0	5.0	0.1	0.0	0.0	3.9	1.9	0.0	0.0	5.2	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.4	0.0	34.8	17.9	0.0	0.0	38.6	6.3	0.0	0.0	19.1	19.1
LnGrp LOS	C	A	C	B	A	A	D	A	A	A	B	B
Approach Vol, veh/h		502			11			1000			917	
Approach Delay, s/veh		29.2			17.9			13.6			19.1	
Approach LOS		C			B			B			B	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		40.6		18.1	13.8	26.8		18.1				
Change Period (Y+Rc), s		5.4		4.6	* 4.7	5.4		4.6				
Max Green Setting (Gmax), s		29.6		15.4	* 10	29.6		5.4				
Max Q Clear Time (g_c+I1), s		9.2		12.8	9.2	16.3		8.3				
Green Ext Time (p_c), s		5.5		0.6	0.1	5.0		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		18.9
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	SBL	SEL	SET	NWT	NWR
Lane Group Flow (vph)	230	81	608	461	42
v/c Ratio	0.46	0.22	0.52	0.50	0.05
Control Delay	13.9	23.5	7.9	15.4	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	13.9	23.5	7.9	15.4	4.9
Queue Length 50th (ft)	29	22	83	112	0
Queue Length 95th (ft)	82	60	180	220	15
Internal Link Dist (ft)	2230		1578	1622	
Turn Bay Length (ft)		435			400
Base Capacity (vph)	832	522	1432	1088	995
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.28	0.16	0.42	0.42	0.04

Intersection Summary

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (veh/h)	73	120	68	511	387	35
Future Volume (veh/h)	73	120	68	511	387	35
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1870	1781	1781	1870
Adj Flow Rate, veh/h	87	143	81	608	461	42
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	2	8	8	2
Cap, veh/h	111	183	216	1044	607	540
Arrive On Green	0.18	0.18	0.12	0.59	0.34	0.34
Sat Flow, veh/h	623	1024	1781	1781	1781	1585
Grp Volume(v), veh/h	231	0	81	608	461	42
Grp Sat Flow(s),veh/h/ln	1655	0	1781	1781	1781	1585
Q Serve(g_s), s	5.5	0.0	1.7	8.8	9.5	0.7
Cycle Q Clear(g_c), s	5.5	0.0	1.7	8.8	9.5	0.7
Prop In Lane	0.38	0.62	1.00			1.00
Lane Grp Cap(c), veh/h	296	0	216	1044	607	540
V/C Ratio(X)	0.78	0.00	0.37	0.58	0.76	0.08
Avail Cap(c_a), veh/h	618	0	428	1076	1076	958
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	16.2	0.0	16.7	5.4	12.1	9.2
Incr Delay (d2), s/veh	4.5	0.0	1.1	0.8	2.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.7	1.9	3.2	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.7	0.0	17.7	6.1	14.1	9.3
LnGrp LOS	C	A	B	A	B	A
Approach Vol, veh/h	231			689	503	
Approach Delay, s/veh	20.7			7.5	13.7	
Approach LOS	C			A	B	

Timer - Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	10.1	19.2				29.2		12.0
Change Period (Y+Rc), s	5.1	5.1				5.1		4.6
Max Green Setting (Gmax), s	9.9	24.9				24.9		15.4
Max Q Clear Time (g_c+I1), s	3.7	11.5				10.8		7.5
Green Ext Time (p_c), s	0.1	2.6				3.5		0.4

Intersection Summary			
HCM 6th Ctrl Delay			11.8
HCM 6th LOS			B

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	2.9

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	67	37	22	562	385	67
Future Vol, veh/h	67	37	22	562	385	67
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	8	8	2
Mvmt Flow	78	43	26	653	448	78

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1192	487	526	0	-	0
Stage 1	487	-	-	-	-	-
Stage 2	705	-	-	-	-	-
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	207	581	1041	-	-	-
Stage 1	618	-	-	-	-	-
Stage 2	490	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	199	581	1041	-	-	-
Mov Cap-2 Maneuver	199	-	-	-	-	-
Stage 1	594	-	-	-	-	-
Stage 2	490	-	-	-	-	-

Approach	SB		SE		NW	
HCM Control Delay, s	30.3		0.3		0	
HCM LOS	D					

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SBLn1
Capacity (veh/h)	-	-	1041	-	260
HCM Lane V/C Ratio	-	-	0.025	-	0.465
HCM Control Delay (s)	-	-	8.5	0	30.3
HCM Lane LOS	-	-	A	A	D
HCM 95th %tile Q(veh)	-	-	0.1	-	2.3

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	371	301	144	866	165	911
v/c Ratio	0.95	0.93	0.84	0.91	0.85	0.91
Control Delay	65.2	68.0	78.3	44.5	75.2	44.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.2	68.0	78.3	44.5	75.2	44.5
Queue Length 50th (ft)	179	148	82	243	94	257
Queue Length 95th (ft)	#291	#252	#158	276	#173	291
Internal Link Dist (ft)	615	635		1224		2566
Turn Bay Length (ft)			135		135	
Base Capacity (vph)	394	326	172	971	195	1013
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.92	0.84	0.89	0.85	0.90

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	98	164	53	78	113	117	622	79	134	687	51
Future Volume (veh/h)	39	98	164	53	78	113	117	622	79	134	687	51
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	1737	1737	1870	1737	1737
Adj Flow Rate, veh/h	48	121	202	65	96	140	144	768	98	165	848	63
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	2	11	11
Cap, veh/h	45	112	188	63	92	135	174	846	108	198	937	70
Arrive On Green	0.20	0.20	0.20	0.17	0.17	0.17	0.10	0.29	0.29	0.11	0.30	0.30
Sat Flow, veh/h	219	552	922	369	545	795	1781	2944	376	1781	3114	231
Grp Volume(v), veh/h	371	0	0	301	0	0	144	430	436	165	449	462
Grp Sat Flow(s),veh/h/ln	1693	0	0	1709	0	0	1781	1650	1669	1781	1650	1695
Q Serve(g_s), s	18.1	0.0	0.0	15.1	0.0	0.0	7.1	22.4	22.4	8.1	23.3	23.3
Cycle Q Clear(g_c), s	18.1	0.0	0.0	15.1	0.0	0.0	7.1	22.4	22.4	8.1	23.3	23.3
Prop In Lane	0.13		0.54	0.22		0.47	1.00		0.22	1.00		0.14
Lane Grp Cap(c), veh/h	344	0	0	290	0	0	174	474	480	198	497	510
V/C Ratio(X)	1.08	0.00	0.00	1.04	0.00	0.00	0.83	0.91	0.91	0.83	0.90	0.90
Avail Cap(c_a), veh/h	344	0	0	290	0	0	174	493	499	198	516	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.4	0.0	0.0	36.9	0.0	0.0	39.4	30.6	30.6	38.7	29.9	29.9
Incr Delay (d2), s/veh	70.5	0.0	0.0	63.0	0.0	0.0	26.7	20.1	20.0	25.0	19.0	18.7
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	14.0	0.0	0.0	11.2	0.0	0.0	4.3	11.2	11.3	4.8	11.5	11.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	106.0	0.0	0.0	100.0	0.0	0.0	66.1	50.6	50.5	63.7	48.9	48.5
LnGrp LOS	F	A	A	F	A	A	E	D	D	E	D	D
Approach Vol, veh/h		371			301			1010			1076	
Approach Delay, s/veh		106.0			100.0			52.8			51.0	
Approach LOS		F			F			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.6	31.0		23.2	13.4	32.2		20.2
Change Period (Y+Rc), s	* 4.7	5.4		5.1	* 4.7	5.4		5.1
Max Green Setting (Gmax), s	* 9.9	26.6		18.1	* 8.7	27.8		15.1
Max Q Clear Time (g_c+I1), s	10.1	24.4		20.1	9.1	25.3		17.1
Green Ext Time (p_c), s	0.0	1.2		0.0	0.0	1.4		0.0

Intersection Summary	
HCM 6th Ctrl Delay	64.4
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	NBT	SBT	SEL	SET	SER	NWL	NWT
Lane Group Flow (vph)	551	285	3	514	146	204	380
v/c Ratio	1.16	1.07	0.03	1.06	0.26	1.38	0.55
Control Delay	124.1	116.1	46.0	92.6	5.4	243.2	27.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	124.1	116.1	46.0	92.6	5.4	243.2	27.7
Queue Length 50th (ft)	~389	~202	2	~361	0	~173	173
Queue Length 95th (ft)	#599	#368	11	#561	40	#316	315
Internal Link Dist (ft)	479	5386		3214			2844
Turn Bay Length (ft)			220		100	220	
Base Capacity (vph)	476	267	88	487	551	148	689
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.16	1.07	0.03	1.06	0.26	1.38	0.55

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	134	93	280	134	124	4	3	473	134	188	301	49
Future Volume (veh/h)	134	93	280	134	124	4	3	473	134	188	301	49
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	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	146	101	304	146	135	4	3	514	146	204	327	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	8	2	2	8	8
Cap, veh/h	113	78	236	137	127	4	7	493	439	150	534	87
Arrive On Green	0.25	0.25	0.25	0.15	0.15	0.15	0.00	0.28	0.28	0.08	0.36	0.36
Sat Flow, veh/h	445	308	928	932	862	26	1781	1781	1585	1781	1495	242
Grp Volume(v), veh/h	551	0	0	285	0	0	3	514	146	204	0	380
Grp Sat Flow(s),veh/h/ln	1681	0	0	1819	0	0	1781	1781	1585	1781	0	1738
Q Serve(g_s), s	25.4	0.0	0.0	14.7	0.0	0.0	0.2	27.7	7.3	8.4	0.0	18.0
Cycle Q Clear(g_c), s	25.4	0.0	0.0	14.7	0.0	0.0	0.2	27.7	7.3	8.4	0.0	18.0
Prop In Lane	0.26		0.55	0.51		0.01	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	427	0	0	267	0	0	7	493	439	150	0	620
V/C Ratio(X)	1.29	0.00	0.00	1.07	0.00	0.00	0.42	1.04	0.33	1.36	0.00	0.61
Avail Cap(c_a), veh/h	427	0	0	267	0	0	89	493	439	150	0	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.3	0.0	0.0	42.7	0.0	0.0	49.7	36.2	28.8	45.8	0.0	26.5
Incr Delay (d2), s/veh	147.3	0.0	0.0	73.5	0.0	0.0	35.0	51.8	0.4	200.4	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	27.4	0.0	0.0	11.6	0.0	0.0	0.1	18.0	2.6	11.8	0.0	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	184.6	0.0	0.0	116.2	0.0	0.0	84.7	87.9	29.2	246.2	0.0	28.2
LnGrp LOS	F	A	A	F	A	A	F	F	C	F	A	C
Approach Vol, veh/h		551			285			663			584	
Approach Delay, s/veh		184.6			116.2			75.0			104.4	
Approach LOS		F			F			E			F	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.8	13.8	34.2		21.2	5.8	42.2				
Change Period (Y+Rc), s		5.4	5.4	6.5		6.5	5.4	6.5				
Max Green Setting (Gmax), s		25.4	8.4	27.7		14.7	5.0	31.1				
Max Q Clear Time (g_c+I1), s		27.4	10.4	29.7		16.7	2.2	20.0				
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	1.5				

Intersection Summary		
HCM 6th Ctrl Delay		117.8
HCM 6th LOS		F

Intersection						
Int Delay, s/veh	3.9					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	95	82	716	92	38	859
Future Vol, veh/h	95	82	716	92	38	859
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	-	-	-	10	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	11	2	2	11
Mvmt Flow	114	99	863	111	46	1035

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1529	487	0	0	974	0
Stage 1	919	-	-	-	-	-
Stage 2	610	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 108	526	-	-	704	-
Stage 1	349	-	-	-	-	-
Stage 2	505	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 101	526	-	-	704	-
Mov Cap-2 Maneuver	228	-	-	-	-	-
Stage 1	349	-	-	-	-	-
Stage 2	472	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	39	0	0.4
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	309	704	-
HCM Lane V/C Ratio	-	-	0.69	0.065	-
HCM Control Delay (s)	-	-	39	10.5	-
HCM Lane LOS	-	-	E	B	-
HCM 95th %tile Q(veh)	-	-	4.8	0.2	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	453	586	610	566	571	641
v/c Ratio	0.96	0.37	0.97	0.28	0.84	0.85
Control Delay	67.4	0.7	59.6	8.2	46.9	19.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.4	0.7	59.6	8.2	46.9	19.5
Queue Length 50th (ft)	254	0	337	70	164	53
Queue Length 95th (ft)	#355	0	#444	82	192	110
Internal Link Dist (ft)	1555			480	2580	
Turn Bay Length (ft)			340			280
Base Capacity (vph)	471	1583	629	2029	688	754
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.37	0.97	0.28	0.83	0.85

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	358	463	482	447	451	506
Future Volume (veh/h)	358	463	482	447	451	506
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1737	1737	1870
Adj Flow Rate, veh/h	453	0	610	566	571	375
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	11	11	2
Cap, veh/h	473		631	2053	697	335
Arrive On Green	0.27	0.00	0.35	0.62	0.21	0.21
Sat Flow, veh/h	1781	1585	1781	3387	3387	1585
Grp Volume(v), veh/h	453	0	610	566	571	375
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1650	1650	1585
Q Serve(g_s), s	22.5	0.0	30.3	7.0	14.9	19.0
Cycle Q Clear(g_c), s	22.5	0.0	30.3	7.0	14.9	19.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	473		631	2053	697	335
V/C Ratio(X)	0.96		0.97	0.28	0.82	1.12
Avail Cap(c_a), veh/h	473		631	2053	697	335
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	32.6	0.0	28.5	7.8	33.9	35.5
Incr Delay (d2), s/veh	30.7	0.0	27.5	0.1	7.7	85.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.5	0.0	16.7	2.1	6.4	14.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	63.3	0.0	56.0	7.8	41.6	121.4
LnGrp LOS	E		E	A	D	F
Approach Vol, veh/h	453	A		1176	946	
Approach Delay, s/veh	63.3			32.8	73.2	
Approach LOS	E			C	E	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		61.4		28.6	37.0	24.4
Change Period (Y+Rc), s		5.4		* 4.7	5.1	5.4
Max Green Setting (Gmax), s		56.0		* 24	31.9	19.0
Max Q Clear Time (g_c+I1), s		9.0		24.5	32.3	21.0
Green Ext Time (p_c), s		4.1		0.0	0.0	0.0

Intersection Summary		
HCM 6th Ctrl Delay		53.0
HCM 6th LOS		D

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	48	255	121	452	70	598	99	368	611
v/c Ratio	0.31	0.61	0.55	0.58	0.35	0.84	0.17	0.87	0.44
Control Delay	31.4	23.5	36.1	10.8	30.2	36.1	0.6	46.1	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.4	23.5	36.1	10.8	30.2	36.1	0.6	46.1	15.1
Queue Length 50th (ft)	17	28	42	21	24	111	0	129	92
Queue Length 95th (ft)	43	58	#93	55	56	#184	0	#255	132
Internal Link Dist (ft)		1219		1008		1659			690
Turn Bay Length (ft)	400		215		225		225	250	
Base Capacity (vph)	157	420	230	803	207	728	604	438	1403
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.61	0.53	0.56	0.34	0.82	0.16	0.84	0.44

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	137	85	105	104	289	61	520	86	320	514	17
Future Volume (veh/h)	42	137	85	105	104	289	61	520	86	320	514	17
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	1737	1870	1870	1737	1737
Adj Flow Rate, veh/h	48	157	98	121	120	332	70	598	99	368	591	20
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	11	2	2	11	11
Cap, veh/h	83	213	126	155	235	210	105	710	341	419	1274	43
Arrive On Green	0.05	0.10	0.10	0.09	0.13	0.13	0.06	0.21	0.21	0.24	0.39	0.39
Sat Flow, veh/h	1781	2150	1269	1781	1777	1585	1781	3300	1585	1781	3257	110
Grp Volume(v), veh/h	48	128	127	121	120	332	70	598	99	368	299	312
Grp Sat Flow(s),veh/h/ln	1781	1777	1642	1781	1777	1585	1781	1650	1585	1781	1650	1717
Q Serve(g_s), s	1.5	4.0	4.3	3.8	3.6	7.5	2.2	9.8	3.0	11.3	7.6	7.7
Cycle Q Clear(g_c), s	1.5	4.0	4.3	3.8	3.6	7.5	2.2	9.8	3.0	11.3	7.6	7.7
Prop In Lane	1.00		0.77	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	83	176	163	155	235	210	105	710	341	419	646	672
V/C Ratio(X)	0.58	0.73	0.78	0.78	0.51	1.58	0.67	0.84	0.29	0.88	0.46	0.46
Avail Cap(c_a), veh/h	157	176	163	230	235	210	207	734	352	437	646	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.5	24.8	24.9	25.3	22.9	24.6	26.1	21.3	18.6	20.9	12.8	12.8
Incr Delay (d2), s/veh	6.1	14.1	21.2	9.6	1.8	283.6	7.1	8.6	0.5	17.6	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.2	2.4	1.8	1.4	19.0	1.0	4.1	1.0	6.1	2.4	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.6	38.9	46.2	34.9	24.7	308.2	33.2	29.9	19.1	38.5	13.3	13.3
LnGrp LOS	C	D	D	C	C	F	C	C	B	D	B	B
Approach Vol, veh/h		303			573			767			979	
Approach Delay, s/veh		41.0			191.1			28.8			22.8	
Approach LOS		D			F			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.4	17.6	9.6	11.0	8.4	27.6	7.8	12.9
Change Period (Y+Rc), s	5.1	5.4	* 4.7	5.4	5.1	5.4	5.1	5.4
Max Green Setting (Gmax), s	13.9	12.6	* 7.3	5.6	6.6	19.9	5.0	7.5
Max Q Clear Time (g_c+I1), s	13.3	11.8	5.8	6.3	4.2	9.7	3.5	9.5
Green Ext Time (p_c), s	0.1	0.3	0.0	0.0	0.0	2.5	0.0	0.0

Intersection Summary		
HCM 6th Ctrl Delay		63.4
HCM 6th LOS		E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	126	46	106	122	8	687	88	728
v/c Ratio	0.34	0.09	0.30	0.25	0.03	0.49	0.28	0.41
Control Delay	26.9	0.4	26.3	2.0	25.7	17.9	28.1	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.9	0.4	26.3	2.0	25.7	17.9	28.1	12.7
Queue Length 50th (ft)	43	0	36	0	3	111	31	86
Queue Length 95th (ft)	89	0	77	8	14	165	#70	175
Internal Link Dist (ft)	816		797			1484		1659
Turn Bay Length (ft)		150			75		250	
Base Capacity (vph)	454	557	446	552	269	1440	332	1776
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.08	0.24	0.22	0.03	0.48	0.27	0.41

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	54	41	62	33	110	7	554	64	79	630	25
Future Volume (veh/h)	59	54	41	62	33	110	7	554	64	79	630	25
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	1737	1737	1870	1737	1737
Adj Flow Rate, veh/h	66	60	46	69	37	122	8	616	71	88	700	28
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	2	11	11
Cap, veh/h	98	89	162	137	73	184	19	847	97	131	1122	45
Arrive On Green	0.10	0.10	0.10	0.12	0.12	0.12	0.01	0.28	0.28	0.07	0.35	0.35
Sat Flow, veh/h	955	868	1585	1179	632	1585	1781	2982	343	1781	3235	129
Grp Volume(v), veh/h	126	0	46	106	0	122	8	340	347	88	357	371
Grp Sat Flow(s),veh/h/ln	1823	0	1585	1811	0	1585	1781	1650	1675	1781	1650	1714
Q Serve(g_s), s	3.1	0.0	1.2	2.5	0.0	3.4	0.2	8.5	8.5	2.2	8.3	8.3
Cycle Q Clear(g_c), s	3.1	0.0	1.2	2.5	0.0	3.4	0.2	8.5	8.5	2.2	8.3	8.3
Prop In Lane	0.52		1.00	0.65		1.00	1.00		0.20	1.00		0.08
Lane Grp Cap(c), veh/h	187	0	162	211	0	184	19	468	476	131	572	594
V/C Ratio(X)	0.68	0.00	0.28	0.50	0.00	0.66	0.43	0.73	0.73	0.67	0.62	0.62
Avail Cap(c_a), veh/h	335	0	291	329	0	287	199	645	655	245	678	704
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.8	0.0	19.0	19.0	0.0	19.4	22.5	14.8	14.8	20.7	12.5	12.5
Incr Delay (d2), s/veh	4.2	0.0	0.9	1.9	0.0	4.0	14.5	2.6	2.6	5.8	1.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.4	1.0	0.0	1.3	0.2	2.9	3.0	1.0	2.5	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.0	0.0	19.9	20.8	0.0	23.4	37.0	17.4	17.4	26.5	13.8	13.7
LnGrp LOS	C	A	B	C	A	C	D	B	B	C	B	B
Approach Vol, veh/h		172			228			695			816	
Approach Delay, s/veh		22.9			22.2			17.6			15.1	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	18.4		9.3	5.2	21.3		10.0				
Change Period (Y+Rc), s	* 4.7	* 5.4		4.6	* 4.7	5.4		4.7				
Max Green Setting (Gmax), s	* 6.3	* 18		8.4	* 5.1	18.8		8.3				
Max Q Clear Time (g_c+I1), s	4.2	10.5		5.1	2.2	10.3		5.4				
Green Ext Time (p_c), s	0.0	2.4		0.2	0.0	2.8		0.3				

Intersection Summary			
HCM 6th Ctrl Delay			17.6
HCM 6th LOS			B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	20.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	92	0	51	2	1	1	77	403	2	0	566	40
Future Vol, veh/h	92	0	51	2	1	1	77	403	2	0	566	40
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2	2	11	2	2	11	2
Mvmt Flow	103	0	57	2	1	1	87	453	2	0	636	45
Number of Lanes	1	1	0	0	1	0	1	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	3	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	1	2
HCM Control Delay	13.1	11.7	16.2	24.9
HCM LOS	B	B	C	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	50%	0%	0%
Vol Thru, %	0%	100%	99%	0%	0%	25%	100%	83%
Vol Right, %	0%	0%	1%	0%	100%	25%	0%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	77	269	136	92	51	4	377	229
LT Vol	77	0	0	92	0	2	0	0
Through Vol	0	269	134	0	0	1	377	189
RT Vol	0	0	2	0	51	1	0	40
Lane Flow Rate	87	302	153	103	57	4	424	257
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.177	0.588	0.291	0.248	0.118	0.011	0.795	0.462
Departure Headway (Hd)	7.362	7.01	6.845	8.638	7.415	8.854	6.75	6.472
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	484	510	521	419	487	406	534	552
Service Time	5.157	4.805	4.639	6.338	5.115	6.563	4.54	4.262
HCM Lane V/C Ratio	0.18	0.592	0.294	0.246	0.117	0.01	0.794	0.466
HCM Control Delay	11.8	19.4	12.5	14.2	11.1	11.7	31.1	14.8
HCM Lane LOS	B	C	B	B	B	B	D	B
HCM 95th-tile Q	0.6	3.7	1.2	1	0.4	0	7.5	2.4

Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	55	238	51	164	471	452	176	390	109
v/c Ratio	0.34	0.54	0.13	0.64	0.64	0.74	0.39	0.88	0.19
Control Delay	32.3	30.4	0.7	37.6	24.0	28.9	21.7	47.0	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.3	30.4	0.7	37.6	24.0	28.9	21.7	47.0	0.8
Queue Length 50th (ft)	19	44	0	57	72	70	53	137	0
Queue Length 95th (ft)	47	72	0	#119	#123	#114	97	#264	0
Internal Link Dist (ft)		1872			1484	348		628	
Turn Bay Length (ft)	250		80	130			225		
Base Capacity (vph)	160	440	379	273	762	638	468	453	577
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.54	0.13	0.60	0.62	0.71	0.38	0.86	0.19

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	205	44	141	296	109	21	271	97	151	335	94
Future Volume (veh/h)	47	205	44	141	296	109	21	271	97	151	335	94
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	1737	1737	1737	1870	1737	1870
Adj Flow Rate, veh/h	55	238	0	164	344	127	24	315	0	176	390	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	11	11	11	2	11	2
Cap, veh/h	93	382		208	440	160	33	461		462	451	
Arrive On Green	0.05	0.11	0.00	0.12	0.17	0.17	0.15	0.15	0.00	0.26	0.26	0.00
Sat Flow, veh/h	1781	3554	1585	1781	2553	927	228	3234	0	1781	1737	1585
Grp Volume(v), veh/h	55	238	0	164	238	233	181	158	0	176	390	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1703	1726	1650	0	1781	1737	1585
Q Serve(g_s), s	1.6	3.4	0.0	4.8	6.9	7.1	5.4	4.8	0.0	4.4	11.5	0.0
Cycle Q Clear(g_c), s	1.6	3.4	0.0	4.8	6.9	7.1	5.4	4.8	0.0	4.4	11.5	0.0
Prop In Lane	1.00		1.00	1.00		0.54	0.13		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	93	382		208	306	294	253	242		462	451	
V/C Ratio(X)	0.59	0.62		0.79	0.78	0.79	0.72	0.65		0.38	0.87	
Avail Cap(c_a), veh/h	169	429		288	323	310	330	316		493	481	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	25.0	23.0	0.0	23.1	21.3	21.4	21.9	21.7	0.0	16.4	19.0	0.0
Incr Delay (d2), s/veh	5.9	2.3	0.0	9.4	10.7	12.7	5.1	3.0	0.0	0.5	14.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.4	0.0	2.3	3.4	3.5	2.4	1.9	0.0	1.6	5.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.9	25.3	0.0	32.6	32.0	34.1	27.1	24.6	0.0	16.9	33.6	0.0
LnGrp LOS	C	C		C	C	C	C	C		B	C	
Approach Vol, veh/h		293	A		635			339	A		566	A
Approach Delay, s/veh		26.4			32.9			25.9			28.4	
Approach LOS		C			C			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.6	11.0	11.2		19.1	7.5	14.7				
Change Period (Y+Rc), s		* 4.7	* 4.7	* 5.4		5.1	* 4.7	5.4				
Max Green Setting (Gmax), s		* 10	* 8.7	* 6.5		14.9	* 5.1	9.8				
Max Q Clear Time (g_c+I1), s		7.4	6.8	5.4		13.5	3.6	9.1				
Green Ext Time (p_c), s		0.5	0.1	0.1		0.4	0.0	0.2				

Intersection Summary	
HCM 6th Ctrl Delay	29.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	87	142	4	539	545	63
v/c Ratio	0.40	0.42	0.01	0.63	0.77	0.09
Control Delay	28.5	10.0	0.0	21.3	23.6	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.5	10.0	0.0	21.3	23.6	0.8
Queue Length 50th (ft)	27	1	0	83	148	0
Queue Length 95th (ft)	#66	42	0	127	#290	5
Internal Link Dist (ft)		804	608	1106	348	
Turn Bay Length (ft)	100					275
Base Capacity (vph)	226	342	301	1027	881	815
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.42	0.01	0.52	0.62	0.08

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	2	126	3	0	1	170	310	5	3	488	57
Future Volume (veh/h)	78	2	126	3	0	1	170	310	5	3	488	57
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	87	2	140	3	0	1	189	344	6	3	542	63
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	362	3	194	173	19	19	265	519	9	4	660	563
Arrive On Green	0.12	0.12	0.12	0.12	0.00	0.12	0.22	0.22	0.22	0.36	0.36	0.36
Sat Flow, veh/h	1416	22	1566	300	154	151	1225	2403	43	10	1860	1585
Grp Volume(v), veh/h	87	0	142	4	0	0	279	0	260	545	0	63
Grp Sat Flow(s),veh/h/ln	1416	0	1588	605	0	0	1809	0	1863	1870	0	1585
Q Serve(g_s), s	0.0	0.0	4.0	0.0	0.0	0.0	6.6	0.0	5.9	12.2	0.0	1.2
Cycle Q Clear(g_c), s	2.1	0.0	4.0	4.0	0.0	0.0	6.6	0.0	5.9	12.2	0.0	1.2
Prop In Lane	1.00		0.99	0.75		0.25	0.68		0.02	0.01		1.00
Lane Grp Cap(c), veh/h	362	0	196	211	0	0	391	0	402	664	0	563
V/C Ratio(X)	0.24	0.00	0.72	0.02	0.00	0.00	0.71	0.00	0.65	0.82	0.00	0.11
Avail Cap(c_a), veh/h	381	0	217	228	0	0	521	0	536	862	0	731
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.6	0.0	19.5	17.9	0.0	0.0	16.8	0.0	16.5	13.6	0.0	10.0
Incr Delay (d2), s/veh	0.3	0.0	10.2	0.0	0.0	0.0	3.1	0.0	1.7	4.9	0.0	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	0.8	0.0	1.9	0.0	0.0	0.0	2.7	0.0	2.4	5.0	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.0	0.0	29.7	17.9	0.0	0.0	19.8	0.0	18.2	18.5	0.0	10.1
LnGrp LOS	B	A	C	B	A	A	B	A	B	B	A	B
Approach Vol, veh/h		229			4			539			608	
Approach Delay, s/veh		25.6			17.9			19.1			17.6	
Approach LOS		C			B			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		14.7		10.4		21.1		10.4				
Change Period (Y+Rc), s		* 4.7		* 4.7		4.7		* 4.7				
Max Green Setting (Gmax), s		* 13		* 6.3		21.3		* 6.3				
Max Q Clear Time (g_c+I1), s		8.6		6.0		14.2		6.0				
Green Ext Time (p_c), s		1.4		0.0		2.2		0.0				

Intersection Summary			
HCM 6th Ctrl Delay			19.5
HCM 6th LOS			B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	159	193	11	71	115	90	294	141	224	123
v/c Ratio	0.39	0.15	0.04	0.19	0.22	0.26	0.27	0.23	0.42	0.19
Control Delay	27.1	9.2	27.5	25.1	1.0	26.9	17.1	27.0	22.4	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.1	9.2	27.5	25.1	1.0	26.9	17.1	27.0	22.4	0.7
Queue Length 50th (ft)	50	11	4	22	0	28	42	23	69	0
Queue Length 95th (ft)	#122	41	18	60	0	75	74	54	133	0
Internal Link Dist (ft)		676		1147			740		1106	
Turn Bay Length (ft)	210		80			190		195		100
Base Capacity (vph)	538	1658	276	654	715	433	1774	638	889	887
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.12	0.04	0.11	0.16	0.21	0.17	0.22	0.25	0.14

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	95	83	10	65	106	83	254	17	130	206	113
Future Volume (veh/h)	146	95	83	10	65	106	83	254	17	130	206	113
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	159	103	90	11	71	115	90	276	18	141	224	123
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	208	429	342	26	236	200	141	593	38	343	365	309
Arrive On Green	0.12	0.23	0.23	0.01	0.13	0.13	0.08	0.18	0.18	0.10	0.20	0.20
Sat Flow, veh/h	1781	1879	1498	1781	1870	1585	1781	3388	220	3456	1870	1585
Grp Volume(v), veh/h	159	97	96	11	71	115	90	144	150	141	224	123
Grp Sat Flow(s),veh/h/ln	1781	1777	1601	1781	1870	1585	1781	1777	1831	1728	1870	1585
Q Serve(g_s), s	3.4	1.8	2.0	0.2	1.4	2.7	1.9	2.9	2.9	1.5	4.4	2.7
Cycle Q Clear(g_c), s	3.4	1.8	2.0	0.2	1.4	2.7	1.9	2.9	2.9	1.5	4.4	2.7
Prop In Lane	1.00		0.94	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	208	406	366	26	236	200	141	311	321	343	365	309
V/C Ratio(X)	0.76	0.24	0.26	0.43	0.30	0.58	0.64	0.46	0.47	0.41	0.61	0.40
Avail Cap(c_a), veh/h	461	773	696	237	560	474	372	996	1027	547	955	809
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	12.5	12.6	19.4	15.8	16.4	17.8	14.7	14.7	16.8	14.6	14.0
Incr Delay (d2), s/veh	5.8	0.3	0.4	10.9	0.7	2.6	4.7	1.1	1.1	0.8	1.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.6	0.6	0.2	0.5	1.0	0.9	1.1	1.1	0.6	1.7	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.8	12.8	13.0	30.4	16.5	19.0	22.5	15.8	15.8	17.6	16.3	14.8
LnGrp LOS	C	B	B	C	B	B	C	B	B	B	B	B
Approach Vol, veh/h		352			197			384			488	
Approach Delay, s/veh		17.4			18.7			17.4			16.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	11.7	5.3	14.2	7.8	12.5	9.3	10.1
Change Period (Y+Rc), s	* 4.7	* 4.7	* 4.7	* 5.1	* 4.7	* 4.7	* 4.7	5.1
Max Green Setting (Gmax), s	* 6.3	* 22	* 5.3	* 17	* 8.3	* 20	* 10	11.9
Max Q Clear Time (g_c+I1), s	3.5	4.9	2.2	4.0	3.9	6.4	5.4	4.7
Green Ext Time (p_c), s	0.1	1.5	0.0	0.8	0.1	1.4	0.2	0.4

Intersection Summary	
HCM 6th Ctrl Delay	17.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	NBT	SBL	SBT	SBR	SEL	SET	NWL	NWT
Lane Group Flow (vph)	330	16	67	67	151	817	6	469
v/c Ratio	0.48	0.07	0.16	0.18	0.83	0.63	0.03	0.68
Control Delay	21.5	22.8	23.0	1.1	65.1	22.3	23.4	26.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	22.8	23.0	1.1	65.1	22.3	23.4	26.2
Queue Length 50th (ft)	49	5	10	0	49	104	2	71
Queue Length 95th (ft)	81	19	25	0	#145	#303	11	#136
Internal Link Dist (ft)	790		516			3919		2409
Turn Bay Length (ft)		150		65	165		405	
Base Capacity (vph)	2040	428	808	527	183	1290	272	692
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.04	0.08	0.13	0.83	0.63	0.02	0.68

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	89	186	16	14	59	59	133	634	85	5	344	69
Future Volume (veh/h)	89	186	16	14	59	59	133	634	85	5	344	69
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	1781	1870	1870	1870	1870	1870	1781	1781
Adj Flow Rate, veh/h	101	211	18	16	67	67	151	720	97	6	391	78
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	8	2	2	2	2	2	8	8
Cap, veh/h	175	390	34	161	306	143	192	898	121	14	523	103
Arrive On Green	0.16	0.16	0.16	0.09	0.09	0.09	0.11	0.29	0.29	0.01	0.19	0.19
Sat Flow, veh/h	1065	2376	209	1781	3385	1585	1781	3147	424	1781	2817	557
Grp Volume(v), veh/h	172	0	158	16	67	67	151	406	411	6	233	236
Grp Sat Flow(s),veh/h/ln	1817	0	1833	1781	1692	1585	1781	1777	1794	1781	1692	1681
Q Serve(g_s), s	4.2	0.0	3.8	0.4	0.9	1.9	3.9	10.1	10.1	0.2	6.2	6.3
Cycle Q Clear(g_c), s	4.2	0.0	3.8	0.4	0.9	1.9	3.9	10.1	10.1	0.2	6.2	6.3
Prop In Lane	0.59		0.11	1.00		1.00	1.00		0.24	1.00		0.33
Lane Grp Cap(c), veh/h	298	0	301	161	306	143	192	507	512	14	314	312
V/C Ratio(X)	0.58	0.00	0.52	0.10	0.22	0.47	0.79	0.80	0.80	0.42	0.74	0.75
Avail Cap(c_a), veh/h	1149	0	1159	462	879	411	198	507	512	295	372	370
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	18.4	0.0	18.3	19.9	20.2	20.6	20.8	15.8	15.8	23.6	18.4	18.4
Incr Delay (d2), s/veh	1.8	0.0	1.4	0.3	0.4	2.4	18.3	9.0	8.9	18.5	6.5	7.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	1.5	0.2	0.3	0.7	2.3	4.1	4.2	0.1	2.4	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.2	0.0	19.7	20.2	20.5	23.0	39.1	24.8	24.7	42.1	24.9	25.6
LnGrp LOS	C	A	B	C	C	C	D	C	C	D	C	C
Approach Vol, veh/h		330			150			968			475	
Approach Delay, s/veh		20.0			21.6			27.0			25.5	
Approach LOS		B			C			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		13.2	5.5	20.1		8.9	10.2	15.4				
Change Period (Y+Rc), s		5.4	5.1	6.5		4.6	5.1	6.5				
Max Green Setting (Gmax), s		30.2	7.9	7.9		12.4	5.3	10.5				
Max Q Clear Time (g_c+I1), s		6.2	2.2	12.1		3.9	5.9	8.3				
Green Ext Time (p_c), s		1.8	0.0	0.0		0.4	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay			25.0									
HCM 6th LOS			C									

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	2.2

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	1	358	26	62	249	4	12	0	81	1	0	0
Future Vol, veh/h	1	358	26	62	249	4	12	0	81	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	1	389	28	67	271	4	13	0	88	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	275	0	0	417	0	0	812	814	403	856	826	273
Stage 1	-	-	-	-	-	-	405	405	-	407	407	-
Stage 2	-	-	-	-	-	-	407	409	-	449	419	-
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	1288	-	-	1142	-	-	298	312	647	278	307	766
Stage 1	-	-	-	-	-	-	622	598	-	621	597	-
Stage 2	-	-	-	-	-	-	621	596	-	589	590	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1288	-	-	1142	-	-	282	290	647	227	286	766
Mov Cap-2 Maneuver	-	-	-	-	-	-	282	290	-	227	286	-
Stage 1	-	-	-	-	-	-	621	597	-	620	556	-
Stage 2	-	-	-	-	-	-	578	555	-	508	589	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0	1.6	12.9	20.9
HCM LOS			B	C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	554	1142	-	-	1288	-	-	227
HCM Lane V/C Ratio	0.182	0.059	-	-	0.001	-	-	0.005
HCM Control Delay (s)	12.9	8.3	0	-	7.8	0	-	20.9
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.7	0.2	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	1	37	76	364	278	2
Future Vol, veh/h	1	37	76	364	278	2
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	-	-	-	-	-
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	8	8	2
Mvmt Flow	1	40	83	396	302	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	865	303	304	0	-	0
Stage 1	303	-	-	-	-	-
Stage 2	562	-	-	-	-	-
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	324	737	1257	-	-	-
Stage 1	749	-	-	-	-	-
Stage 2	571	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	296	737	1257	-	-	-
Mov Cap-2 Maneuver	296	-	-	-	-	-
Stage 1	685	-	-	-	-	-
Stage 2	571	-	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s	10.4	1.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWR	WBLn1	SEL	SET
Capacity (veh/h)	-	-	709	1257	-
HCM Lane V/C Ratio	-	-	0.058	0.066	-
HCM Control Delay (s)	-	-	10.4	8.1	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.2	-

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	44	34	57	26	6	20	86	50	7	97	3
Future Vol, veh/h	4	44	34	57	26	6	20	86	50	7	97	3
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	49	38	64	29	7	22	97	56	8	109	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.1	8.6	8.6	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	5%	64%	7%
Vol Thru, %	55%	54%	29%	91%
Vol Right, %	32%	41%	7%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	156	82	89	107
LT Vol	20	4	57	7
Through Vol	86	44	26	97
RT Vol	50	34	6	3
Lane Flow Rate	175	92	100	120
Geometry Grp	1	1	1	1
Degree of Util (X)	0.212	0.115	0.133	0.153
Departure Headway (Hd)	4.363	4.491	4.801	4.581
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	824	798	746	783
Service Time	2.388	2.522	2.833	2.609
HCM Lane V/C Ratio	0.212	0.115	0.134	0.153
HCM Control Delay	8.6	8.1	8.6	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	0.4	0.5	0.5

Intersection	
Intersection Delay, s/veh	11.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	7	18	5	7	0	26	118	3	4	268	56
Future Vol, veh/h	38	7	18	5	7	0	26	118	3	4	268	56
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	54	10	25	7	10	0	37	166	4	6	377	79
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.3	8.9	9.5	12.8
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	60%	42%	1%
Vol Thru, %	80%	11%	58%	82%
Vol Right, %	2%	29%	0%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	147	63	12	328
LT Vol	26	38	5	4
Through Vol	118	7	7	268
RT Vol	3	18	0	56
Lane Flow Rate	207	89	17	462
Geometry Grp	1	1	1	1
Degree of Util (X)	0.272	0.133	0.026	0.559
Departure Headway (Hd)	4.73	5.378	5.644	4.357
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	758	663	630	827
Service Time	2.773	3.442	3.721	2.389
HCM Lane V/C Ratio	0.273	0.134	0.027	0.559
HCM Control Delay	9.5	9.3	8.9	12.8
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	1.1	0.5	0.1	3.5

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	22	77	48	24	5	67	188	54	11	177	14
Future Vol, veh/h	7	22	77	48	24	5	67	188	54	11	177	14
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	24	85	53	26	5	74	207	59	12	195	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9	9.4	11.4	9.9
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	22%	7%	62%	5%
Vol Thru, %	61%	21%	31%	88%
Vol Right, %	17%	73%	6%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	309	106	77	202
LT Vol	67	7	48	11
Through Vol	188	22	24	177
RT Vol	54	77	5	14
Lane Flow Rate	340	116	85	222
Geometry Grp	1	1	1	1
Degree of Util (X)	0.439	0.16	0.129	0.297
Departure Headway (Hd)	4.651	4.935	5.485	4.813
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	767	719	646	739
Service Time	2.715	3.023	3.579	2.885
HCM Lane V/C Ratio	0.443	0.161	0.132	0.3
HCM Control Delay	11.4	9	9.4	9.9
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	2.3	0.6	0.4	1.2

Intersection	
Int Delay, s/veh	2.5

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	84	12	34	347	274	94
Future Vol, veh/h	84	12	34	347	274	94
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	-	-	-	-	-
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	8	8	2
Mvmt Flow	91	13	37	377	298	102

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	800	349	400	0	-	0
Stage 1	349	-	-	-	-	-
Stage 2	451	-	-	-	-	-
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	354	694	1159	-	-	-
Stage 1	714	-	-	-	-	-
Stage 2	642	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	340	694	1159	-	-	-
Mov Cap-2 Maneuver	340	-	-	-	-	-
Stage 1	685	-	-	-	-	-
Stage 2	642	-	-	-	-	-

Approach	SB	SE	NW
HCM Control Delay, s	18.9	0.7	0
HCM LOS	C		

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SBLn1
Capacity (veh/h)	-	-	1159	-	363
HCM Lane V/C Ratio	-	-	0.032	-	0.287
HCM Control Delay (s)	-	-	8.2	0	18.9
HCM Lane LOS	-	-	A	A	C
HCM 95th %tile Q(veh)	-	-	0.1	-	1.2

Intersection						
Int Delay, s/veh	19.1					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	367	117	136	354	111	131
Future Vol, veh/h	367	117	136	354	111	131
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	412	131	153	398	125	147

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	543	0	1182	478
Stage 1	-	-	-	-	478	-
Stage 2	-	-	-	-	704	-
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	-	-	1026	-	210	587
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	490	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1026	-	170	587
Mov Cap-2 Maneuver	-	-	-	-	170	-
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	396	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	90.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	276	-	-	1026	-
HCM Lane V/C Ratio	0.985	-	-	0.149	-
HCM Control Delay (s)	90.8	-	-	9.1	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	9.8	-	-	0.5	-

Intersection	
Intersection Delay, s/veh	185.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Vol, veh/h	42	226	226	22	165	43	52	331	54	298	296	23
Future Vol, veh/h	42	226	226	22	165	43	52	331	54	298	296	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	8	2	2	8	2
Mvmt Flow	46	246	246	24	179	47	57	360	59	324	322	25
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

Approach	EB	WB	SE	NW
Opposing Approach	WB	EB	NW	SE
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SE	NW	WB	EB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NW	SE	EB	WB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	168.5	36.4	88.6	322.1
HCM LOS	F	E	F	F

Lane	NWLn1	NWLn2	EBLn1	WBLn1	SELn1	SELn2
Vol Left, %	50%	0%	9%	10%	14%	0%
Vol Thru, %	50%	0%	46%	72%	86%	0%
Vol Right, %	0%	100%	46%	19%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	594	23	494	230	383	54
LT Vol	298	0	42	22	52	0
Through Vol	296	0	226	165	331	0
RT Vol	0	23	226	43	0	54
Lane Flow Rate	646	25	537	250	416	59
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	1.661	0.058	1.263	0.655	1.05	0.137
Departure Headway (Hd)	10.217	9.32	10.116	12.507	11.248	10.537
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	362	387	365	293	325	343
Service Time	7.917	7.02	8.116	10.507	8.948	8.237
HCM Lane V/C Ratio	1.785	0.065	1.471	0.853	1.28	0.172
HCM Control Delay	334.1	12.6	168.5	36.4	99	14.9
HCM Lane LOS	F	B	F	E	F	B
HCM 95th-tile Q	35.3	0.2	20.1	4.2	12.3	0.5

Intersection	
Intersection Delay, s/veh	74.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	88	150	94	141	88	32	84	249	138	21	269	74
Future Vol, veh/h	88	150	94	141	88	32	84	249	138	21	269	74
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	96	163	102	153	96	35	91	271	150	23	292	80
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	46.7	33.1	131.9	56.2
HCM LOS	E	D	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	27%	54%	6%
Vol Thru, %	53%	45%	34%	74%
Vol Right, %	29%	28%	12%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	471	332	261	364
LT Vol	84	88	141	21
Through Vol	249	150	88	269
RT Vol	138	94	32	74
Lane Flow Rate	512	361	284	396
Geometry Grp	1	1	1	1
Degree of Util (X)	1.186	0.851	0.708	0.914
Departure Headway (Hd)	8.339	9.153	9.71	8.938
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	440	397	374	408
Service Time	6.339	7.153	7.71	6.938
HCM Lane V/C Ratio	1.164	0.909	0.759	0.971
HCM Control Delay	131.9	46.7	33.1	56.2
HCM Lane LOS	F	E	D	F
HCM 95th-tile Q	19.8	8.1	5.2	9.8

Intersection	
Intersection Delay, s/veh	11
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	50	155	38	46	149	11	57	62	84	13	77	41
Future Vol, veh/h	50	155	38	46	149	11	57	62	84	13	77	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	54	168	41	50	162	12	62	67	91	14	84	45
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.5	11.1	10.9	10
HCM LOS	B	B	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	28%	21%	22%	10%
Vol Thru, %	31%	64%	72%	59%
Vol Right, %	41%	16%	5%	31%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	203	243	206	131
LT Vol	57	50	46	13
Through Vol	62	155	149	77
RT Vol	84	38	11	41
Lane Flow Rate	221	264	224	142
Geometry Grp	1	1	1	1
Degree of Util (X)	0.324	0.384	0.333	0.215
Departure Headway (Hd)	5.291	5.232	5.355	5.448
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	680	687	672	658
Service Time	3.329	3.267	3.391	3.492
HCM Lane V/C Ratio	0.325	0.384	0.333	0.216
HCM Control Delay	10.9	11.5	11.1	10
HCM Lane LOS	B	B	B	A
HCM 95th-tile Q	1.4	1.8	1.5	0.8

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	35	6	45	1	8	0	55	116	1	0	217	69
Future Vol, veh/h	35	6	45	1	8	0	55	116	1	0	217	69
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	47	8	61	1	11	0	74	157	1	0	293	93
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.2	8.7	9.9	11.3
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	32%	41%	11%	0%
Vol Thru, %	67%	7%	89%	76%
Vol Right, %	1%	52%	0%	24%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	172	86	9	286
LT Vol	55	35	1	0
Through Vol	116	6	8	217
RT Vol	1	45	0	69
Lane Flow Rate	232	116	12	386
Geometry Grp	1	1	1	1
Degree of Util (X)	0.306	0.164	0.019	0.471
Departure Headway (Hd)	4.736	5.084	5.517	4.385
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	755	701	644	819
Service Time	2.783	3.147	3.595	2.425
HCM Lane V/C Ratio	0.307	0.165	0.019	0.471
HCM Control Delay	9.9	9.2	8.7	11.3
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	1.3	0.6	0.1	2.6

Lane Group	NBL	NBT	NBR	SBL	SBT	SET	SER	NWL	NWT
Lane Group Flow (vph)	316	437	255	108	437	342	313	251	457
v/c Ratio	1.21	0.89	0.44	0.60	1.16	0.91	0.55	0.96	0.61
Control Delay	153.8	50.5	10.5	45.2	127.5	59.3	8.0	79.5	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	153.8	50.5	10.5	45.2	127.5	59.3	8.0	79.5	19.2
Queue Length 50th (ft)	~169	~193	27	45	~228	145	5	109	141
Queue Length 95th (ft)	#313	#368	86	#105	#392	#291	65	#241	231
Internal Link Dist (ft)		639			101	192			1578
Turn Bay Length (ft)			60	110			100	190	
Base Capacity (vph)	262	489	577	187	376	374	572	262	749
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.21	0.89	0.44	0.58	1.16	0.91	0.55	0.96	0.61

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	288	398	232	98	398	0	0	311	285	228	348	68
Future Volume (veh/h)	288	398	232	98	398	0	0	311	285	228	348	68
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	1737	1870	1870	1737	0	0	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	316	437	0	108	437	0	0	342	313	251	382	75
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	11	2	2	11	0	0	8	2	2	8	8
Cap, veh/h	262	498		138	378	0	0	375	334	262	611	120
Arrive On Green	0.15	0.29	0.00	0.08	0.22	0.00	0.00	0.21	0.21	0.15	0.42	0.42
Sat Flow, veh/h	1781	1737	1585	1781	1737	0	0	1781	1585	1781	1446	284
Grp Volume(v), veh/h	316	437	0	108	437	0	0	342	313	251	0	457
Grp Sat Flow(s),veh/h/ln	1781	1737	1585	1781	1737	0	0	1781	1585	1781	0	1730
Q Serve(g_s), s	10.4	17.0	0.0	4.2	15.4	0.0	0.0	13.3	13.8	9.9	0.0	14.7
Cycle Q Clear(g_c), s	10.4	17.0	0.0	4.2	15.4	0.0	0.0	13.3	13.8	9.9	0.0	14.7
Prop In Lane	1.00		1.00	1.00		0.00	0.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	262	498		138	378	0	0	375	334	262	0	731
V/C Ratio(X)	1.21	0.88		0.78	1.16	0.00	0.00	0.91	0.94	0.96	0.00	0.63
Avail Cap(c_a), veh/h	262	498		186	378	0	0	375	334	262	0	731
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.2	24.1	0.0	32.1	27.7	0.0	0.0	27.3	27.5	30.0	0.0	16.1
Incr Delay (d2), s/veh	123.7	16.1	0.0	13.9	96.3	0.0	0.0	26.0	33.6	44.3	0.0	1.7
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	13.2	8.7	0.0	2.3	16.1	0.0	0.0	7.9	7.9	7.2	0.0	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	153.9	40.2	0.0	46.0	124.0	0.0	0.0	53.3	61.1	74.3	0.0	17.7
LnGrp LOS	F	D		D	F	A	A	D	E	E	A	B
Approach Vol, veh/h		753	A		545			655			708	
Approach Delay, s/veh		87.9			108.5			57.0			37.8	
Approach LOS		F			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	10.1	25.7	15.0	20.0	15.0	20.8		35.0
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	* 5.4		5.1
Max Green Setting (Gmax), s	7.4	17.6	10.4	14.9	10.4	* 15		29.9
Max Q Clear Time (g_c+I1), s	6.2	19.0	11.9	15.8	12.4	17.4		16.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0		2.3

Intersection Summary	
HCM 6th Ctrl Delay	71.2
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	14.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	79	168	56	51	135	75	47	108	52	70	92	37
Future Vol, veh/h	79	168	56	51	135	75	47	108	52	70	92	37
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	87	185	62	56	148	82	52	119	57	77	101	41
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	15.7	14	13.1	13.1
HCM LOS	C	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	26%	20%	35%
Vol Thru, %	52%	55%	52%	46%
Vol Right, %	25%	18%	29%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	207	303	261	199
LT Vol	47	79	51	70
Through Vol	108	168	135	92
RT Vol	52	56	75	37
Lane Flow Rate	227	333	287	219
Geometry Grp	1	1	1	1
Degree of Util (X)	0.389	0.545	0.468	0.379
Departure Headway (Hd)	6.164	5.891	5.875	6.245
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	582	616	614	575
Service Time	4.212	3.891	3.916	4.293
HCM Lane V/C Ratio	0.39	0.541	0.467	0.381
HCM Control Delay	13.1	15.7	14	13.1
HCM Lane LOS	B	C	B	B
HCM 95th-tile Q	1.8	3.3	2.5	1.8

Lane Group	EBT	EBR	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	170	190	36	198	836	948
v/c Ratio	0.63	0.41	0.12	0.69	0.40	0.73
Control Delay	35.4	7.2	18.4	41.7	6.4	19.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.4	7.2	18.4	41.7	6.4	19.1
Queue Length 50th (ft)	61	0	8	74	70	148
Queue Length 95th (ft)	125	47	31	#181	111	224
Internal Link Dist (ft)	2546		191		2566	560
Turn Bay Length (ft)		100		160		
Base Capacity (vph)	353	550	389	306	2434	1619
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.35	0.09	0.65	0.34	0.59

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	0	175	17	7	9	182	769	0	0	715	157
Future Volume (veh/h)	156	0	175	17	7	9	182	769	0	0	715	157
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	1737	1737	1737	1737	1737
Adj Flow Rate, veh/h	170	0	190	18	8	10	198	836	0	0	777	171
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	11	11	11
Cap, veh/h	381	0	280	146	66	41	250	2071	0	0	1062	234
Arrive On Green	0.18	0.00	0.18	0.18	0.18	0.18	0.14	0.63	0.00	0.00	0.40	0.40
Sat Flow, veh/h	1356	0	1585	226	373	230	1781	3387	0	0	2776	592
Grp Volume(v), veh/h	170	0	190	36	0	0	198	836	0	0	477	471
Grp Sat Flow(s),veh/h/ln	1356	0	1585	830	0	0	1781	1650	0	0	1650	1630
Q Serve(g_s), s	0.0	0.0	5.7	0.1	0.0	0.0	5.5	6.5	0.0	0.0	12.6	12.6
Cycle Q Clear(g_c), s	6.1	0.0	5.7	6.2	0.0	0.0	5.5	6.5	0.0	0.0	12.6	12.6
Prop In Lane	1.00		1.00	0.50		0.28	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h	381	0	280	252	0	0	250	2071	0	0	652	644
V/C Ratio(X)	0.45	0.00	0.68	0.14	0.00	0.00	0.79	0.40	0.00	0.00	0.73	0.73
Avail Cap(c_a), veh/h	555	0	478	252	0	0	359	2071	0	0	956	945
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	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	19.8	0.0	19.7	17.8	0.0	0.0	21.2	4.7	0.0	0.0	13.1	13.1
Incr Delay (d2), s/veh	0.8	0.0	2.9	0.3	0.0	0.0	7.5	0.1	0.0	0.0	1.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	2.1	0.3	0.0	0.0	2.6	1.4	0.0	0.0	4.1	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.7	0.0	22.5	18.1	0.0	0.0	28.7	4.9	0.0	0.0	14.8	14.8
LnGrp LOS	C	A	C	B	A	A	C	A	A	A	B	B
Approach Vol, veh/h		360			36			1034			948	
Approach Delay, s/veh		21.6			18.1			9.4			14.8	
Approach LOS		C			B			A			B	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		37.5		13.6	11.9	25.6		13.6				
Change Period (Y+Rc), s		5.4		4.6	* 4.7	5.4		4.6				
Max Green Setting (Gmax), s		29.6		15.4	* 10	29.6		5.4				
Max Q Clear Time (g_c+I1), s		8.5		8.1	7.5	14.6		8.2				
Green Ext Time (p_c), s		6.1		0.9	0.1	5.6		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		13.5
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	SBL	SEL	SET	NWT	NWR
Lane Group Flow (vph)	180	86	630	678	129
v/c Ratio	0.48	0.30	0.51	0.68	0.14
Control Delay	18.6	25.8	7.3	21.0	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.6	25.8	7.3	21.0	3.4
Queue Length 50th (ft)	35	27	88	200	0
Queue Length 95th (ft)	82	65	193	#439	26
Internal Link Dist (ft)	2230		1578	1622	
Turn Bay Length (ft)					
Base Capacity (vph)	607	376	1384	941	907
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.30	0.23	0.46	0.72	0.14

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (veh/h)	81	76	75	548	590	112
Future Volume (veh/h)	81	76	75	548	590	112
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1870	1781	1781	1870
Adj Flow Rate, veh/h	93	87	86	630	678	129
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	2	8	8	2
Cap, veh/h	121	113	131	1143	807	718
Arrive On Green	0.14	0.14	0.07	0.64	0.45	0.45
Sat Flow, veh/h	864	808	1781	1781	1781	1585
Grp Volume(v), veh/h	181	0	86	630	678	129
Grp Sat Flow(s),veh/h/ln	1682	0	1781	1781	1781	1585
Q Serve(g_s), s	4.6	0.0	2.1	8.7	14.9	2.1
Cycle Q Clear(g_c), s	4.6	0.0	2.1	8.7	14.9	2.1
Prop In Lane	0.51	0.48	1.00			1.00
Lane Grp Cap(c), veh/h	235	0	131	1143	807	718
V/C Ratio(X)	0.77	0.00	0.66	0.55	0.84	0.18
Avail Cap(c_a), veh/h	584	0	398	1143	1001	890
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	18.4	0.0	20.0	4.4	10.7	7.2
Incr Delay (d2), s/veh	5.3	0.0	5.4	0.6	5.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	1.0	1.7	5.4	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.7	0.0	25.4	5.0	16.1	7.3
LnGrp LOS	C	A	C	A	B	A
Approach Vol, veh/h	181			716	807	
Approach Delay, s/veh	23.7			7.4	14.7	
Approach LOS	C			A	B	

Timer - Assigned Phs	1	2	6	8
Phs Duration (G+Y+Rc), s	8.4	25.2	33.5	10.8
Change Period (Y+Rc), s	5.1	5.1	5.1	4.6
Max Green Setting (Gmax), s	9.9	24.9	24.9	15.4
Max Q Clear Time (g_c+I1), s	4.1	16.9	10.7	6.6
Green Ext Time (p_c), s	0.1	3.2	3.7	0.3

Intersection Summary	
HCM 6th Ctrl Delay	12.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection						
Int Delay, s/veh	1.3					

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	39	7	5	629	706	65
Future Vol, veh/h	39	7	5	629	706	65
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	-	-	-	-	-
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	8	8	2
Mvmt Flow	42	8	5	684	767	71

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1497	803	838	0	-	0
Stage 1	803	-	-	-	-	-
Stage 2	694	-	-	-	-	-
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	135	383	796	-	-	-
Stage 1	441	-	-	-	-	-
Stage 2	496	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	134	383	796	-	-	-
Mov Cap-2 Maneuver	134	-	-	-	-	-
Stage 1	437	-	-	-	-	-
Stage 2	496	-	-	-	-	-

Approach	SB	SE	NW
HCM Control Delay, s	40.9	0.1	0
HCM LOS	E		

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SBLn1
Capacity (veh/h)	-	-	796	-	149
HCM Lane V/C Ratio	-	-	0.007	-	0.336
HCM Control Delay (s)	-	-	9.6	0	40.9
HCM Lane LOS	-	-	A	A	E
HCM 95th %tile Q(veh)	-	-	0	-	1.4

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	241	483	115	785	168	785
v/c Ratio	0.73	1.38	0.65	0.83	0.80	0.78
Control Delay	40.7	215.1	57.2	36.9	67.4	33.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.7	215.1	57.2	36.9	67.4	33.2
Queue Length 50th (ft)	101	~341	62	203	92	199
Queue Length 95th (ft)	181	#552	#142	#287	#210	281
Internal Link Dist (ft)	615	635		1224		2566
Turn Bay Length (ft)			135		135	
Base Capacity (vph)	409	351	184	1037	209	1082
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.59	1.38	0.63	0.76	0.80	0.73

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	74	107	101	116	227	106	652	70	155	675	47
Future Volume (veh/h)	41	74	107	101	116	227	106	652	70	155	675	47
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	1737	1737	1870	1737	1737
Adj Flow Rate, veh/h	45	80	116	110	126	247	115	709	76	168	734	51
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	2	11	11
Cap, veh/h	54	95	138	72	82	162	146	843	90	204	980	68
Arrive On Green	0.17	0.17	0.17	0.19	0.19	0.19	0.08	0.28	0.28	0.11	0.31	0.31
Sat Flow, veh/h	319	566	821	386	442	867	1781	3007	322	1781	3131	217
Grp Volume(v), veh/h	241	0	0	483	0	0	115	389	396	168	387	398
Grp Sat Flow(s),veh/h/ln	1707	0	0	1695	0	0	1781	1650	1679	1781	1650	1698
Q Serve(g_s), s	11.1	0.0	0.0	15.1	0.0	0.0	5.1	18.0	18.0	7.5	17.0	17.0
Cycle Q Clear(g_c), s	11.1	0.0	0.0	15.1	0.0	0.0	5.1	18.0	18.0	7.5	17.0	17.0
Prop In Lane	0.19		0.48	0.23		0.51	1.00		0.19	1.00		0.13
Lane Grp Cap(c), veh/h	287	0	0	316	0	0	146	462	471	204	516	531
V/C Ratio(X)	0.84	0.00	0.00	1.53	0.00	0.00	0.79	0.84	0.84	0.82	0.75	0.75
Avail Cap(c_a), veh/h	382	0	0	316	0	0	191	542	552	218	567	583
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.6	0.0	0.0	32.9	0.0	0.0	36.5	27.4	27.4	35.0	25.0	25.0
Incr Delay (d2), s/veh	12.0	0.0	0.0	253.0	0.0	0.0	14.9	10.0	10.0	20.9	5.0	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	0.0	0.0	28.2	0.0	0.0	2.8	8.1	8.2	4.3	7.1	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.6	0.0	0.0	285.9	0.0	0.0	51.4	37.5	37.4	56.0	30.0	29.9
LnGrp LOS	D	A	A	F	A	A	D	D	D	E	C	C
Approach Vol, veh/h		241			483			900			953	
Approach Delay, s/veh		44.6			285.9			39.2			34.5	
Approach LOS		D			F			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.0	28.1		18.7	11.3	30.7		20.2				
Change Period (Y+Rc), s	* 4.7	5.4		5.1	* 4.7	5.4		5.1				
Max Green Setting (Gmax), s	* 9.9	26.6		18.1	* 8.7	27.8		15.1				
Max Q Clear Time (g_c+I1), s	9.5	20.0		13.1	7.1	19.0		17.1				
Green Ext Time (p_c), s	0.0	2.7		0.6	0.0	3.3		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			84.2									
HCM 6th LOS			F									

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	NBT	SBT	SEL	SET	SER	NWL	NWT
Lane Group Flow (vph)	539	291	3	504	205	285	671
v/c Ratio	1.40	1.00	0.03	1.04	0.35	1.37	0.90
Control Delay	224.5	97.2	46.0	89.5	5.3	229.7	44.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	224.5	97.2	46.0	89.5	5.3	229.7	44.4
Queue Length 50th (ft)	~450	~188	2	~350	0	~241	370
Queue Length 95th (ft)	#657	#360	11	#549	47	#404	#714
Internal Link Dist (ft)	479	5386		3214			2844
Turn Bay Length (ft)			220			220	
Base Capacity (vph)	386	290	88	483	591	208	746
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.40	1.00	0.03	1.04	0.35	1.37	0.90

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	199	104	193	101	159	7	3	464	189	262	546	72
Future Volume (veh/h)	199	104	193	101	159	7	3	464	189	262	546	72
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	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	216	113	210	110	173	8	3	504	205	285	593	78
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	8	2	2	8	8
Cap, veh/h	144	76	140	110	173	8	7	490	436	210	600	79
Arrive On Green	0.21	0.21	0.21	0.16	0.16	0.16	0.00	0.28	0.28	0.12	0.39	0.39
Sat Flow, veh/h	688	360	668	691	1086	50	1781	1781	1585	1781	1542	203
Grp Volume(v), veh/h	539	0	0	291	0	0	3	504	205	285	0	671
Grp Sat Flow(s),veh/h/ln	1716	0	0	1827	0	0	1781	1781	1585	1781	0	1745
Q Serve(g_s), s	21.0	0.0	0.0	15.9	0.0	0.0	0.2	27.5	10.8	11.8	0.0	38.2
Cycle Q Clear(g_c), s	21.0	0.0	0.0	15.9	0.0	0.0	0.2	27.5	10.8	11.8	0.0	38.2
Prop In Lane	0.40		0.39	0.38		0.03	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	360	0	0	290	0	0	7	490	436	210	0	679
V/C Ratio(X)	1.50	0.00	0.00	1.00	0.00	0.00	0.42	1.03	0.47	1.36	0.00	0.99
Avail Cap(c_a), veh/h	360	0	0	290	0	0	89	490	436	210	0	679
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.5	0.0	0.0	42.1	0.0	0.0	49.7	36.3	30.2	44.1	0.0	30.3
Incr Delay (d2), s/veh	237.4	0.0	0.0	53.3	0.0	0.0	35.0	48.2	0.8	188.0	0.0	31.6
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	32.2	0.0	0.0	11.0	0.0	0.0	0.1	17.4	3.9	15.9	0.0	20.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	276.9	0.0	0.0	95.3	0.0	0.0	84.7	84.5	31.0	232.1	0.0	61.9
LnGrp LOS	F	A	A	F	A	A	F	F	C	F	A	E
Approach Vol, veh/h		539			291			712			956	
Approach Delay, s/veh		276.9			95.3			69.1			112.6	
Approach LOS		F			F			E			F	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.4	17.2	34.0		22.4	5.8	45.4				
Change Period (Y+Rc), s		5.4	5.4	6.5		6.5	5.4	6.5				
Max Green Setting (Gmax), s		21.0	11.8	27.5		15.9	5.0	34.3				
Max Q Clear Time (g_c+I1), s		23.0	13.8	29.5		17.9	2.2	40.2				
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	0.0				

Intersection Summary			
HCM 6th Ctrl Delay			133.6
HCM 6th LOS			F

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	63	10	792	51	31	836
Future Vol, veh/h	63	10	792	51	31	836
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	-	-	-	10	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	11	2	2	11
Mvmt Flow	68	11	861	55	34	909

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1412	458	0	0	916	0
Stage 1	889	-	-	-	-	-
Stage 2	523	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	129	550	-	-	740	-
Stage 1	362	-	-	-	-	-
Stage 2	559	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	123	550	-	-	740	-
Mov Cap-2 Maneuver	250	-	-	-	-	-
Stage 1	362	-	-	-	-	-
Stage 2	533	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.8	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	270	740	-
HCM Lane V/C Ratio	-	-	0.294	0.046	-
HCM Control Delay (s)	-	-	23.8	10.1	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	1.2	0.1	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	135	326	337	758	790	190
v/c Ratio	0.47	0.21	0.67	0.32	0.78	0.31
Control Delay	28.6	0.3	25.1	4.2	26.0	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.6	0.3	25.1	4.2	26.0	4.9
Queue Length 50th (ft)	42	0	101	48	130	0
Queue Length 95th (ft)	93	0	177	70	#238	40
Internal Link Dist (ft)	1555			1250	2580	
Turn Bay Length (ft)			340			280
Base Capacity (vph)	337	1583	686	2499	1107	664
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.21	0.49	0.30	0.71	0.29

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	124	300	310	697	727	175
Future Volume (veh/h)	124	300	310	697	727	175
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1737	1737	1870
Adj Flow Rate, veh/h	135	0	337	758	790	190
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	11	11	2
Cap, veh/h	175		420	2215	1052	505
Arrive On Green	0.10	0.00	0.24	0.67	0.32	0.32
Sat Flow, veh/h	1781	1585	1781	3387	3387	1585
Grp Volume(v), veh/h	135	0	337	758	790	190
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1650	1650	1585
Q Serve(g_s), s	3.2	0.0	7.8	4.3	9.4	4.1
Cycle Q Clear(g_c), s	3.2	0.0	7.8	4.3	9.4	4.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	175		420	2215	1052	505
V/C Ratio(X)	0.77		0.80	0.34	0.75	0.38
Avail Cap(c_a), veh/h	378		768	3058	1250	600
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	19.3	0.0	15.8	3.1	13.4	11.5
Incr Delay (d2), s/veh	6.9	0.0	3.6	0.1	2.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	2.9	0.4	2.9	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.2	0.0	19.4	3.2	15.5	12.0
LnGrp LOS	C		B	A	B	B
Approach Vol, veh/h	135	A		1095	980	
Approach Delay, s/veh	26.2			8.2	14.8	
Approach LOS	C			A	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		34.8		9.0	15.4	19.4
Change Period (Y+Rc), s		5.4		* 4.7	5.1	5.4
Max Green Setting (Gmax), s		40.6		* 9.3	18.9	16.6
Max Q Clear Time (g_c+I1), s		6.3		5.2	9.8	11.4
Green Ext Time (p_c), s		5.6		0.1	0.7	2.6
Intersection Summary						
HCM 6th Ctrl Delay			12.2			
HCM 6th LOS			B			

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	48	69	198	349	35	714	192	359	666
v/c Ratio	0.26	0.21	0.67	0.50	0.20	0.99	0.32	0.89	0.43
Control Delay	28.5	20.8	36.3	9.7	28.2	59.2	1.6	50.8	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.5	20.8	36.3	9.7	28.2	59.2	1.6	50.8	13.7
Queue Length 50th (ft)	17	8	69	14	12	~158	0	130	74
Queue Length 95th (ft)	44	25	#151	47	35	#254	3	#277	156
Internal Link Dist (ft)		1219		1008		1659			1250
Turn Bay Length (ft)	400		215		225		225	250	
Base Capacity (vph)	191	327	317	717	174	719	601	404	1540
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.21	0.62	0.49	0.20	0.99	0.32	0.89	0.43

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	43	20	182	75	246	32	657	177	330	603	10
Future Volume (veh/h)	44	43	20	182	75	246	32	657	177	330	603	10
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	1737	1870	1870	1737	1737
Adj Flow Rate, veh/h	48	47	22	198	82	267	35	714	192	359	655	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	2	2	11	11
Cap, veh/h	83	206	90	245	303	270	66	686	329	382	1280	21
Arrive On Green	0.05	0.09	0.09	0.14	0.17	0.17	0.04	0.21	0.21	0.21	0.39	0.39
Sat Flow, veh/h	1781	2405	1053	1781	1777	1585	1781	3300	1585	1781	3321	56
Grp Volume(v), veh/h	48	34	35	198	82	267	35	714	192	359	325	341
Grp Sat Flow(s),veh/h/ln	1781	1777	1681	1781	1777	1585	1781	1650	1585	1781	1650	1727
Q Serve(g_s), s	1.5	1.0	1.1	6.3	2.3	9.8	1.1	12.1	6.4	11.5	8.8	8.8
Cycle Q Clear(g_c), s	1.5	1.0	1.1	6.3	2.3	9.8	1.1	12.1	6.4	11.5	8.8	8.8
Prop In Lane	1.00		0.63	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	83	153	144	245	303	270	66	686	329	382	636	666
V/C Ratio(X)	0.58	0.22	0.24	0.81	0.27	0.99	0.53	1.04	0.58	0.94	0.51	0.51
Avail Cap(c_a), veh/h	181	153	144	300	303	270	165	686	329	382	636	666
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.2	24.8	24.8	24.3	21.0	24.1	27.5	23.1	20.8	22.5	13.7	13.7
Incr Delay (d2), s/veh	6.3	0.7	0.9	12.5	0.5	51.6	6.4	45.4	2.6	30.8	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.4	0.4	3.2	0.9	7.1	0.6	8.4	2.3	7.5	2.8	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	25.5	25.7	36.9	21.5	75.7	33.9	68.5	23.4	53.2	14.4	14.4
LnGrp LOS	C	C	C	D	C	E	C	F	C	D	B	B
Approach Vol, veh/h		117			547			941			1025	
Approach Delay, s/veh		28.9			53.5			58.0			28.0	
Approach LOS		C			D			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.6	17.5	12.7	10.4	7.3	27.8	7.8	15.3
Change Period (Y+Rc), s	5.1	5.4	* 4.7	5.4	5.1	5.4	5.1	5.4
Max Green Setting (Gmax), s	12.5	12.1	* 9.8	5.0	5.4	19.2	5.9	8.5
Max Q Clear Time (g_c+I1), s	13.5	14.1	8.3	3.1	3.1	10.8	3.5	11.8
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.0	2.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	44.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	89	32	61	86	4	1023	48	816
v/c Ratio	0.30	0.07	0.22	0.20	0.02	0.61	0.19	0.43
Control Delay	27.8	0.3	27.4	1.1	25.5	15.8	27.4	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.8	0.3	27.4	1.1	25.5	15.8	27.4	10.5
Queue Length 50th (ft)	31	0	21	0	1	163	17	82
Queue Length 95th (ft)	69	0	53	0	9	#238	44	175
Internal Link Dist (ft)	1059		999			1484		1659
Turn Bay Length (ft)		150			75		250	
Base Capacity (vph)	316	454	279	427	247	1743	257	1951
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.07	0.22	0.20	0.02	0.59	0.19	0.42

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	27	29	45	11	79	4	861	80	44	732	18
Future Volume (veh/h)	55	27	29	45	11	79	4	861	80	44	732	18
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	1737	1737	1870	1737	1737
Adj Flow Rate, veh/h	60	29	32	49	12	86	4	936	87	48	796	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	2	11	11
Cap, veh/h	100	48	130	127	31	139	10	1193	111	84	1422	36
Arrive On Green	0.08	0.08	0.08	0.09	0.09	0.09	0.01	0.39	0.39	0.05	0.43	0.43
Sat Flow, veh/h	1220	590	1585	1444	354	1585	1781	3052	284	1781	3290	83
Grp Volume(v), veh/h	89	0	32	61	0	86	4	506	517	48	399	417
Grp Sat Flow(s),veh/h/ln	1809	0	1585	1798	0	1585	1781	1650	1686	1781	1650	1722
Q Serve(g_s), s	2.3	0.0	0.9	1.6	0.0	2.6	0.1	13.3	13.3	1.3	9.0	9.0
Cycle Q Clear(g_c), s	2.3	0.0	0.9	1.6	0.0	2.6	0.1	13.3	13.3	1.3	9.0	9.0
Prop In Lane	0.67		1.00	0.80		1.00	1.00		0.17	1.00		0.05
Lane Grp Cap(c), veh/h	148	0	130	158	0	139	10	645	659	84	713	744
V/C Ratio(X)	0.60	0.00	0.25	0.39	0.00	0.62	0.42	0.78	0.78	0.57	0.56	0.56
Avail Cap(c_a), veh/h	234	0	205	207	0	183	184	785	802	191	782	816
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.9	0.0	21.2	21.3	0.0	21.7	24.5	13.2	13.2	23.1	10.5	10.5
Incr Delay (d2), s/veh	3.9	0.0	1.0	1.5	0.0	4.4	26.1	4.3	4.2	6.1	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.4	0.7	0.0	1.0	0.1	4.6	4.7	0.6	2.5	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.7	0.0	22.2	22.8	0.0	26.2	50.6	17.5	17.5	29.2	11.3	11.2
LnGrp LOS	C	A	C	C	A	C	D	B	B	C	B	B
Approach Vol, veh/h		121			147			1027			864	
Approach Delay, s/veh		24.8			24.8			17.6			12.2	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	24.7		8.6	5.0	26.7		9.0				
Change Period (Y+Rc), s	* 4.7	* 5.4		4.6	* 4.7	5.4		4.7				
Max Green Setting (Gmax), s	* 5.3	* 24		6.4	* 5.1	23.4		5.7				
Max Q Clear Time (g_c+I1), s	3.3	15.3		4.3	2.1	11.0		4.6				
Green Ext Time (p_c), s	0.0	4.0		0.1	0.0	3.9		0.1				

Intersection Summary			
HCM 6th Ctrl Delay			16.4
HCM 6th LOS			B

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	62
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	118	0	78	3	1	1	98	779	13	0	592	51
Future Vol, veh/h	118	0	78	3	1	1	98	779	13	0	592	51
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	11	2	2	11	2
Mvmt Flow	128	0	85	3	1	1	107	847	14	0	643	55
Number of Lanes	1	1	0	0	1	0	1	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	3	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	1	2
HCM Control Delay	16.3	13.6	87	41.7
HCM LOS	C	B	F	E

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	60%	0%	0%
Vol Thru, %	0%	100%	95%	0%	0%	20%	100%	79%
Vol Right, %	0%	0%	5%	0%	100%	20%	0%	21%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	98	519	273	118	78	5	395	248
LT Vol	98	0	0	118	0	3	0	0
Through Vol	0	519	260	0	0	1	395	197
RT Vol	0	0	13	0	78	1	0	51
Lane Flow Rate	107	564	296	128	85	5	429	270
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.238	1.204	0.617	0.345	0.2	0.016	0.928	0.562
Departure Headway (Hd)	8.034	7.68	7.49	10.079	8.845	10.741	8.181	7.878
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	450	480	486	359	409	335	446	462
Service Time	5.734	5.38	5.19	7.779	6.545	8.441	5.881	5.578
HCM Lane V/C Ratio	0.238	1.175	0.609	0.357	0.208	0.015	0.962	0.584
HCM Control Delay	13.2	135.4	21.5	18	13.7	13.6	55.3	20.2
HCM Lane LOS	B	F	C	C	B	B	F	C
HCM 95th-tile Q	0.9	21.7	4.1	1.5	0.7	0	10.6	3.4

Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	148	432	73	192	369	866	142	411	103
v/c Ratio	0.69	0.84	0.20	0.81	0.58	0.99	0.40	1.21	0.23
Control Delay	49.6	47.6	1.2	58.1	21.6	54.2	30.2	147.2	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.6	47.6	1.2	58.1	21.6	54.2	30.2	147.2	2.2
Queue Length 50th (ft)	67	104	0	88	50	194	58	~238	0
Queue Length 95th (ft)	#144	#178	0	#191	92	#321	109	#403	10
Internal Link Dist (ft)		625			462	348		628	
Turn Bay Length (ft)	250		80	130			225		325
Base Capacity (vph)	225	515	373	244	639	879	352	341	453
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.84	0.20	0.79	0.58	0.99	0.40	1.21	0.23

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	136	397	67	177	205	134	35	535	226	131	378	95
Future Volume (veh/h)	136	397	67	177	205	134	35	535	226	131	378	95
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	1737	1737	1737	1870	1737	1870
Adj Flow Rate, veh/h	148	432	0	192	223	146	38	582	0	142	411	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	11	11	11	2	11	2
Cap, veh/h	186	526		233	366	230	46	737		373	364	
Arrive On Green	0.10	0.15	0.00	0.13	0.17	0.17	0.23	0.23	0.00	0.21	0.21	0.00
Sat Flow, veh/h	1781	3554	1585	1781	2095	1315	198	3266	0	1781	1737	1585
Grp Volume(v), veh/h	148	432	0	192	188	181	332	288	0	142	411	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1634	1727	1650	0	1781	1737	1585
Q Serve(g_s), s	5.8	8.4	0.0	7.5	6.9	7.3	13.0	11.6	0.0	4.9	14.9	0.0
Cycle Q Clear(g_c), s	5.8	8.4	0.0	7.5	6.9	7.3	13.0	11.6	0.0	4.9	14.9	0.0
Prop In Lane	1.00		1.00	1.00		0.81	0.11		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	186	526		233	310	285	400	383		373	364	
V/C Ratio(X)	0.80	0.82		0.82	0.60	0.64	0.83	0.75		0.38	1.13	
Avail Cap(c_a), veh/h	238	545		258	310	285	469	448		373	364	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.1	29.4	0.0	30.1	27.1	27.3	26.0	25.4	0.0	24.1	28.1	0.0
Incr Delay (d2), s/veh	13.5	9.5	0.0	17.8	3.3	4.6	10.4	6.0	0.0	0.6	87.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	4.1	0.0	4.1	3.0	3.0	6.2	4.9	0.0	2.0	14.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.7	38.9	0.0	47.9	30.4	31.8	36.3	31.4	0.0	24.8	115.2	0.0
LnGrp LOS	D	D		D	C	C	D	C		C	F	
Approach Vol, veh/h		580	A		561			620	A		553	A
Approach Delay, s/veh		40.3			36.8			34.1			92.0	
Approach LOS		D			D			C			F	

Timer - Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		21.2	14.0	15.9		20.0	12.1	17.8
Change Period (Y+Rc), s		* 4.7	* 4.7	* 5.4		5.1	* 4.7	5.4
Max Green Setting (Gmax), s		* 19	* 10	* 11		14.9	* 9.5	11.4
Max Q Clear Time (g_c+I1), s		15.0	9.5	10.4		16.9	7.8	9.3
Green Ext Time (p_c), s		1.5	0.0	0.1		0.0	0.1	0.4

Intersection Summary	
HCM 6th Ctrl Delay	50.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	128	178	12	215	711	604	70
v/c Ratio	0.80	0.53	0.07	0.39	1.22	1.03	0.12
Control Delay	62.5	11.0	17.5	17.3	134.7	69.0	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.5	11.0	17.5	17.3	134.7	69.0	1.5
Queue Length 50th (ft)	42	0	1	54	~296	~206	0
Queue Length 95th (ft)	#121	47	14	103	#472	#386	8
Internal Link Dist (ft)		1120	841		1106	348	
Turn Bay Length (ft)	100						275
Base Capacity (vph)	160	338	171	556	585	585	584
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.53	0.07	0.39	1.22	1.03	0.12

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	1	163	4	1	6	198	654	0	3	553	64
Future Volume (veh/h)	118	1	163	4	1	6	198	654	0	3	553	64
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	128	1	177	4	1	7	215	711	0	3	601	70
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	274	1	181	89	37	54	560	588	0	3	585	499
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.31	0.31	0.00	0.31	0.31	0.31
Sat Flow, veh/h	1407	9	1577	11	326	472	1781	1870	0	9	1861	1585
Grp Volume(v), veh/h	128	0	178	12	0	0	215	711	0	604	0	70
Grp Sat Flow(s),veh/h/ln	1407	0	1586	808	0	0	1781	1870	0	1870	0	1585
Q Serve(g_s), s	0.0	0.0	6.2	0.0	0.0	0.0	5.2	17.3	0.0	17.3	0.0	1.7
Cycle Q Clear(g_c), s	5.6	0.0	6.2	6.2	0.0	0.0	5.2	17.3	0.0	17.3	0.0	1.7
Prop In Lane	1.00		0.99	0.33		0.58	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	274	0	182	180	0	0	560	588	0	588	0	499
V/C Ratio(X)	0.47	0.00	0.98	0.07	0.00	0.00	0.38	1.21	0.00	1.03	0.00	0.14
Avail Cap(c_a), veh/h	274	0	182	180	0	0	560	588	0	588	0	499
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	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.0	0.0	24.3	21.8	0.0	0.0	14.7	18.9	0.0	18.9	0.0	13.5
Incr Delay (d2), s/veh	1.2	0.0	60.6	0.2	0.0	0.0	0.4	109.1	0.0	44.1	0.0	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	5.2	0.1	0.0	0.0	1.9	24.3	0.0	13.7	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.3	0.0	84.9	22.0	0.0	0.0	15.1	127.9	0.0	63.0	0.0	13.6
LnGrp LOS	C	A	F	C	A	A	B	F	A	F	A	B
Approach Vol, veh/h		306			12			926			674	
Approach Delay, s/veh		59.9			22.0			101.8			57.9	
Approach LOS		E			C			F			E	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.0		11.0		22.0		11.0				
Change Period (Y+Rc), s		* 4.7		* 4.7		4.7		* 4.7				
Max Green Setting (Gmax), s		* 17		* 6.3		17.3		* 6.3				
Max Q Clear Time (g_c+I1), s		19.3		8.2		19.3		8.2				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay			79.2
HCM 6th LOS			E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	213	327	21	143	349	138	388	330	208	146
v/c Ratio	0.64	0.25	0.15	0.48	0.64	0.54	0.60	0.62	0.47	0.26
Control Delay	34.1	10.1	32.6	31.0	9.4	35.0	27.9	31.8	28.3	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.1	10.1	32.6	31.0	9.4	35.0	27.9	31.8	28.3	1.3
Queue Length 50th (ft)	78	25	8	53	0	51	72	63	76	0
Queue Length 95th (ft)	149	62	29	105	65	108	120	109	147	3
Internal Link Dist (ft)		676		1203			944		1106	
Turn Bay Length (ft)	210		80			190		195		100
Base Capacity (vph)	412	1380	144	391	608	297	766	576	458	579
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.24	0.15	0.37	0.57	0.46	0.51	0.57	0.45	0.25

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	192	109	19	132	321	127	330	27	304	191	134
Future Volume (veh/h)	196	192	109	19	132	321	127	330	27	304	191	134
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	213	209	118	21	143	349	138	359	29	330	208	146
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	267	781	423	44	422	358	178	519	42	457	352	298
Arrive On Green	0.15	0.35	0.35	0.02	0.23	0.23	0.10	0.16	0.16	0.13	0.19	0.19
Sat Flow, veh/h	1781	2225	1205	1781	1870	1585	1781	3331	268	3456	1870	1585
Grp Volume(v), veh/h	213	165	162	21	143	349	138	191	197	330	208	146
Grp Sat Flow(s),veh/h/ln	1781	1777	1653	1781	1870	1585	1781	1777	1822	1728	1870	1585
Q Serve(g_s), s	6.6	3.8	4.0	0.7	3.7	12.5	4.3	5.8	5.9	5.2	5.8	4.7
Cycle Q Clear(g_c), s	6.6	3.8	4.0	0.7	3.7	12.5	4.3	5.8	5.9	5.2	5.8	4.7
Prop In Lane	1.00		0.73	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	267	624	580	44	422	358	178	277	284	457	352	298
V/C Ratio(X)	0.80	0.26	0.28	0.48	0.34	0.98	0.77	0.69	0.69	0.72	0.59	0.49
Avail Cap(c_a), veh/h	446	703	654	156	422	358	321	414	424	623	435	369
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.4	13.3	13.3	27.5	18.5	22.0	25.1	22.8	22.8	23.8	21.2	20.7
Incr Delay (d2), s/veh	5.4	0.2	0.3	7.7	0.5	40.9	7.0	3.0	3.1	2.6	1.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	1.4	1.4	0.4	1.5	8.2	2.1	2.5	2.6	2.2	2.5	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.8	13.5	13.6	35.2	19.0	62.8	32.1	25.8	25.9	26.4	22.8	22.0
LnGrp LOS	C	B	B	D	B	E	C	C	C	C	C	C
Approach Vol, veh/h		540			513			526			684	
Approach Delay, s/veh		19.6			49.5			27.5			24.4	
Approach LOS		B			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	13.6	6.1	25.2	10.4	15.5	13.3	18.0
Change Period (Y+Rc), s	* 4.7	* 4.7	* 4.7	* 5.1	* 4.7	* 4.7	* 4.7	5.1
Max Green Setting (Gmax), s	* 10	* 13	* 5	* 23	* 10	* 13	* 14	12.9
Max Q Clear Time (g_c+I1), s	7.2	7.9	2.7	6.0	6.3	7.8	8.6	14.5
Green Ext Time (p_c), s	0.4	1.0	0.0	1.7	0.1	0.8	0.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	29.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	NBT	SBL	SBT	SBR	SEL	SET	NWL	NWT
Lane Group Flow (vph)	222	52	165	152	86	732	3	655
v/c Ratio	0.41	0.19	0.33	0.38	0.42	0.57	0.02	0.80
Control Delay	25.5	24.9	25.2	5.5	33.4	19.2	27.3	32.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.5	24.9	25.2	5.5	33.4	19.2	27.3	32.6
Queue Length 50th (ft)	38	17	28	0	30	89	1	118
Queue Length 95th (ft)	72	45	55	28	74	#255	9	#242
Internal Link Dist (ft)	790		516			3919		2409
Turn Bay Length (ft)		150		65	165		405	
Base Capacity (vph)	1262	517	976	597	215	1277	339	818
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.10	0.17	0.25	0.40	0.57	0.01	0.80

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	144	55	5	48	152	140	79	527	146	3	586	17
Future Volume (veh/h)	144	55	5	48	152	140	79	527	146	3	586	17
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	1781	1870	1870	1870	1870	1870	1781	1781
Adj Flow Rate, veh/h	157	60	5	52	165	152	86	573	159	3	637	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	8	2	2	2	2	2	8	8
Cap, veh/h	239	228	19	269	511	239	121	820	227	7	787	22
Arrive On Green	0.13	0.13	0.13	0.15	0.15	0.15	0.07	0.30	0.30	0.00	0.23	0.23
Sat Flow, veh/h	1781	1703	142	1781	3385	1585	1781	2750	761	1781	3362	95
Grp Volume(v), veh/h	157	0	65	52	165	152	86	370	362	3	321	334
Grp Sat Flow(s),veh/h/ln	1781	0	1845	1781	1692	1585	1781	1777	1733	1781	1692	1764
Q Serve(g_s), s	4.4	0.0	1.7	1.3	2.3	4.7	2.5	9.7	9.7	0.1	9.4	9.4
Cycle Q Clear(g_c), s	4.4	0.0	1.7	1.3	2.3	4.7	2.5	9.7	9.7	0.1	9.4	9.4
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.44	1.00		0.05
Lane Grp Cap(c), veh/h	239	0	247	269	511	239	121	530	517	7	396	413
V/C Ratio(X)	0.66	0.00	0.26	0.19	0.32	0.63	0.71	0.70	0.70	0.41	0.81	0.81
Avail Cap(c_a), veh/h	714	0	740	565	1073	502	235	530	517	371	449	468
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	21.5	0.0	20.3	19.4	19.8	20.9	23.9	16.3	16.3	26.0	18.9	18.9
Incr Delay (d2), s/veh	3.1	0.0	0.6	0.3	0.4	2.8	7.4	4.0	4.2	33.5	9.5	9.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.7	0.5	0.9	1.6	1.1	3.5	3.4	0.1	3.9	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.6	0.0	20.9	19.8	20.2	23.6	31.3	20.3	20.5	59.5	28.5	28.2
LnGrp LOS	C	A	C	B	C	C	C	C	C	E	C	C
Approach Vol, veh/h		222			369			818			658	
Approach Delay, s/veh		23.5			21.6			21.5			28.5	
Approach LOS		C			C			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.4	5.3	22.1		12.5	8.7	18.8				
Change Period (Y+Rc), s		5.4	5.1	6.5		4.6	5.1	6.5				
Max Green Setting (Gmax), s		21.0	10.9	9.9		16.6	6.9	13.9				
Max Q Clear Time (g_c+I1), s		6.4	2.1	11.7		6.7	4.5	11.4				
Green Ext Time (p_c), s		0.9	0.0	0.0		1.2	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay			24.0									
HCM 6th LOS			C									
Notes												

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	33
Intersection LOS	D

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	331	143	157	267	150	168
Future Vol, veh/h	331	143	157	267	150	168
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	399	172	189	322	181	202
Number of Lanes	1	0	1	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	52.9	18.1	23.3
HCM LOS	F	C	C

Lane	NBLn1	EBLn1	WBLn1	WBLn2
Vol Left, %	47%	0%	100%	0%
Vol Thru, %	0%	70%	0%	100%
Vol Right, %	53%	30%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	318	474	157	267
LT Vol	150	0	157	0
Through Vol	0	331	0	267
RT Vol	168	143	0	0
Lane Flow Rate	383	571	189	322
Geometry Grp	2	5	7	7
Degree of Util (X)	0.697	0.963	0.388	0.614
Departure Headway (Hd)	6.547	6.072	7.387	6.875
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	552	600	486	524
Service Time	4.572	4.1	5.138	4.625
HCM Lane V/C Ratio	0.694	0.952	0.389	0.615
HCM Control Delay	23.3	52.9	14.8	20
HCM Lane LOS	C	F	B	C
HCM 95th-tile Q	5.5	13.3	1.8	4.1

Lane Group	EBT	EBR	WBT	SEL	SET	SER	NWL	NWT
Lane Group Flow (vph)	296	295	344	46	257	45	236	285
v/c Ratio	0.65	0.45	0.76	0.23	0.59	0.09	0.95	0.37
Control Delay	24.2	5.2	29.5	26.5	23.4	0.6	76.9	13.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.2	5.2	29.5	26.5	23.4	0.6	76.9	13.6
Queue Length 50th (ft)	76	1	86	13	69	0	73	45
Queue Length 95th (ft)	148	39	#173	40	122	0	#202	122
Internal Link Dist (ft)	884		1579		1178			1731
Turn Bay Length (ft)		60		50		50	100	
Base Capacity (vph)	589	757	574	206	653	656	248	794
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.39	0.60	0.22	0.39	0.07	0.95	0.36

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	40	208	248	43	190	56	39	216	38	198	214	25
Future Volume (veh/h)	40	208	248	43	190	56	39	216	38	198	214	25
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	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	48	248	295	51	226	67	46	257	45	236	255	30
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	8	2	2	8	8
Cap, veh/h	140	463	455	125	307	83	86	361	321	271	530	62
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.05	0.20	0.20	0.15	0.34	0.34
Sat Flow, veh/h	173	1613	1585	121	1070	288	1781	1781	1585	1781	1564	184
Grp Volume(v), veh/h	296	0	295	344	0	0	46	257	45	236	0	285
Grp Sat Flow(s),veh/h/ln	1786	0	1585	1480	0	0	1781	1781	1585	1781	0	1748
Q Serve(g_s), s	0.0	0.0	7.5	3.9	0.0	0.0	1.2	6.2	1.1	6.0	0.0	5.9
Cycle Q Clear(g_c), s	6.2	0.0	7.5	10.1	0.0	0.0	1.2	6.2	1.1	6.0	0.0	5.9
Prop In Lane	0.16		1.00	0.15		0.19	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	603	0	455	515	0	0	86	361	321	271	0	593
V/C Ratio(X)	0.49	0.00	0.65	0.67	0.00	0.00	0.53	0.71	0.14	0.87	0.00	0.48
Avail Cap(c_a), veh/h	777	0	620	675	0	0	224	716	637	271	0	805
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	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.9	0.0	14.4	15.0	0.0	0.0	21.4	17.1	15.1	19.1	0.0	12.0
Incr Delay (d2), s/veh	0.6	0.0	1.6	1.6	0.0	0.0	5.1	2.6	0.2	25.1	0.0	0.6
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	2.3	0.0	2.5	3.1	0.0	0.0	0.6	2.5	0.4	4.1	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.5	0.0	15.9	16.7	0.0	0.0	26.5	19.7	15.3	44.2	0.0	12.6
LnGrp LOS	B	A	B	B	A	A	C	B	B	D	A	B
Approach Vol, veh/h		591			344			348			521	
Approach Delay, s/veh		15.2			16.7			20.0			26.9	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	21.6		17.7	13.0	15.3		17.7				
Change Period (Y+Rc), s	4.5	6.0		4.5	6.0	6.0		4.5				
Max Green Setting (Gmax), s	5.8	21.2		18.0	7.0	18.5		18.0				
Max Q Clear Time (g_c+I1), s	3.2	7.9		9.5	8.0	8.2		12.1				
Green Ext Time (p_c), s	0.0	1.3		1.9	0.0	1.1		1.1				

Intersection Summary			
HCM 6th Ctrl Delay			19.8
HCM 6th LOS			B

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	303	356	425	371
v/c Ratio	0.54	0.74	0.77	0.60
Control Delay	13.9	24.1	22.8	15.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	13.9	24.1	22.8	15.2
Queue Length 50th (ft)	51	77	85	70
Queue Length 95th (ft)	88	126	133	108
Internal Link Dist (ft)	1579	1246	1034	1250
Turn Bay Length (ft)				
Base Capacity (vph)	683	590	684	771
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.44	0.60	0.62	0.48

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	114	62	148	112	17	71	164	97	23	200	67
Future Volume (veh/h)	61	114	62	148	112	17	71	164	97	23	200	67
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	78	146	79	190	144	22	91	210	124	29	256	86
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	231	285	133	397	218	29	219	312	163	142	431	137
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	310	967	450	766	737	99	251	935	489	67	1291	410
Grp Volume(v), veh/h	303	0	0	356	0	0	425	0	0	371	0	0
Grp Sat Flow(s),veh/h/ln	1727	0	0	1602	0	0	1675	0	0	1768	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.3	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.6	0.0	0.0	5.9	0.0	0.0	6.9	0.0	0.0	5.6	0.0	0.0
Prop In Lane	0.26		0.26	0.53		0.06	0.21		0.29	0.08		0.23
Lane Grp Cap(c), veh/h	650	0	0	644	0	0	694	0	0	710	0	0
V/C Ratio(X)	0.47	0.00	0.00	0.55	0.00	0.00	0.61	0.00	0.00	0.52	0.00	0.00
Avail Cap(c_a), veh/h	1063	0	0	1008	0	0	1035	0	0	1088	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.7	0.0	0.0	10.0	0.0	0.0	9.4	0.0	0.0	9.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.7	0.0	0.0	0.9	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.0	1.6	0.0	0.0	1.9	0.0	0.0	1.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.2	0.0	0.0	10.7	0.0	0.0	10.3	0.0	0.0	9.6	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	A	A	A	A
Approach Vol, veh/h		303			356			425			371	
Approach Delay, s/veh		10.2			10.7			10.3			9.6	
Approach LOS		B			B			B			A	

Timer - Assigned Phs		2		4		6		8	
Phs Duration (G+Y+Rc), s		16.8		15.5		16.8		15.5	
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0	
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0	
Max Q Clear Time (g_c+I1), s		8.9		6.6		7.6		7.9	
Green Ext Time (p_c), s		1.9		1.4		1.7		1.7	

Intersection Summary	
HCM 6th Ctrl Delay	10.2
HCM 6th LOS	B

Lane Group	NBL	NBT	NBR	SBL	SBT	SET	SER	NWL	NWT
Lane Group Flow (vph)	241	364	284	52	428	359	239	231	350
v/c Ratio	1.00	0.56	0.40	0.43	0.93	1.03	0.33	0.98	0.50
Control Delay	93.9	23.3	8.2	43.2	57.1	87.2	8.5	88.3	18.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.9	23.3	8.2	43.2	57.1	87.2	8.5	88.3	18.5
Queue Length 50th (ft)	~109	137	28	23	185	~168	31	104	107
Queue Length 95th (ft)	#225	208	74	53	#320	#300	69	#216	166
Internal Link Dist (ft)		639			101	192			1578
Turn Bay Length (ft)			60	110			100	190	
Base Capacity (vph)	241	645	718	122	462	350	718	236	697
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.56	0.40	0.43	0.93	1.03	0.33	0.98	0.50

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	205	309	241	44	364	0	0	305	203	196	240	58
Future Volume (veh/h)	205	309	241	44	364	0	0	305	203	196	240	58
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	1737	1870	1870	1737	0	0	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	241	364	0	52	428	0	0	359	239	231	282	68
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	11	2	2	11	0	0	8	2	2	8	8
Cap, veh/h	240	619		80	463	0	0	350	525	235	543	131
Arrive On Green	0.13	0.36	0.00	0.04	0.27	0.00	0.00	0.20	0.20	0.13	0.39	0.39
Sat Flow, veh/h	1781	1737	1585	1781	1737	0	0	1781	1585	1781	1387	334
Grp Volume(v), veh/h	241	364	0	52	428	0	0	359	239	231	0	350
Grp Sat Flow(s),veh/h/ln	1781	1737	1585	1781	1737	0	0	1781	1585	1781	0	1721
Q Serve(g_s), s	9.8	12.4	0.0	2.1	17.5	0.0	0.0	14.3	8.6	9.4	0.0	11.3
Cycle Q Clear(g_c), s	9.8	12.4	0.0	2.1	17.5	0.0	0.0	14.3	8.6	9.4	0.0	11.3
Prop In Lane	1.00		1.00	1.00		0.00	0.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	240	619		80	463	0	0	350	525	235	0	674
V/C Ratio(X)	1.01	0.59		0.65	0.92	0.00	0.00	1.03	0.46	0.98	0.00	0.52
Avail Cap(c_a), veh/h	240	619		122	463	0	0	350	525	235	0	674
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.5	19.1	0.0	34.2	26.0	0.0	0.0	29.2	19.2	31.5	0.0	16.9
Incr Delay (d2), s/veh	59.4	1.5	0.0	8.7	24.5	0.0	0.0	54.9	0.6	53.9	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	4.9	0.0	1.1	9.9	0.0	0.0	11.0	3.0	7.3	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.9	20.5	0.0	42.9	50.4	0.0	0.0	84.2	19.8	85.4	0.0	17.6
LnGrp LOS	F	C		D	D	A	A	F	B	F	A	B
Approach Vol, veh/h		605	A		480			598			581	
Approach Delay, s/veh		48.6			49.6			58.4			44.6	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	7.9	31.3	14.2	19.4	14.4	24.8		33.6
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	* 5.4		5.1
Max Green Setting (Gmax), s	5.0	23.4	9.6	14.3	9.8	* 19		28.5
Max Q Clear Time (g_c+I1), s	4.1	14.4	11.4	16.3	11.8	19.5		13.3
Green Ext Time (p_c), s	0.0	1.4	0.0	0.0	0.0	0.0		1.8

Intersection Summary	
HCM 6th Ctrl Delay	50.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	296	459	503	602
v/c Ratio	0.49	0.86	0.86	1.20
Control Delay	12.4	32.0	30.7	130.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	12.4	32.0	30.7	130.1
Queue Length 50th (ft)	47	98	109	~219
Queue Length 95th (ft)	66	124	136	#254
Internal Link Dist (ft)	476	2546	560	561
Turn Bay Length (ft)				
Base Capacity (vph)	654	576	588	500
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.45	0.80	0.86	1.20

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	108	66	112	111	94	64	162	121	134	224	57
Future Volume (veh/h)	30	108	66	112	111	94	64	162	121	134	224	57
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	157	96	162	161	136	93	235	175	194	325	83
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	139	344	188	268	213	157	175	330	219	258	326	77
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	143	1030	563	480	637	470	200	824	547	382	815	191
Grp Volume(v), veh/h	296	0	0	459	0	0	503	0	0	602	0	0
Grp Sat Flow(s),veh/h/ln	1736	0	0	1587	0	0	1571	0	0	1389	0	0
Q Serve(g_s), s	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0
Cycle Q Clear(g_c), s	6.0	0.0	0.0	11.8	0.0	0.0	12.3	0.0	0.0	18.0	0.0	0.0
Prop In Lane	0.15		0.32	0.35		0.30	0.18		0.35	0.32		0.14
Lane Grp Cap(c), veh/h	671	0	0	638	0	0	723	0	0	661	0	0
V/C Ratio(X)	0.44	0.00	0.00	0.72	0.00	0.00	0.70	0.00	0.00	0.91	0.00	0.00
Avail Cap(c_a), veh/h	777	0	0	734	0	0	723	0	0	661	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.0	0.0	0.0	13.7	0.0	0.0	11.6	0.0	0.0	14.1	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	2.9	0.0	0.0	2.9	0.0	0.0	16.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.0	3.9	0.0	0.0	3.9	0.0	0.0	8.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.5	0.0	0.0	16.6	0.0	0.0	14.5	0.0	0.0	30.9	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	A	C	A	A
Approach Vol, veh/h		296			459			503			602	
Approach Delay, s/veh		12.5			16.6			14.5			30.9	
Approach LOS		B			B			B			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.0		21.0		24.0		21.0				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		14.3		8.0		20.0		13.8				
Green Ext Time (p_c), s		1.2		1.3		0.0		1.2				
Intersection Summary												
HCM 6th Ctrl Delay			20.0									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	48	323	65	236	144	866	165	911
v/c Ratio	0.37	0.75	0.45	0.49	0.62	0.79	0.63	0.79
Control Delay	53.1	36.2	54.7	24.4	52.8	32.9	50.8	32.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.1	36.2	54.7	24.4	52.8	32.9	50.8	32.1
Queue Length 50th (ft)	28	137	37	86	81	233	92	243
Queue Length 95th (ft)	63	200	79	138	#146	305	159	318
Internal Link Dist (ft)		615		635		1224		2566
Turn Bay Length (ft)	100		100		135		135	
Base Capacity (vph)	135	690	153	704	274	1387	317	1465
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.47	0.42	0.34	0.53	0.62	0.52	0.62

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	98	164	53	78	113	117	622	79	134	687	51
Future Volume (veh/h)	39	98	164	53	78	113	117	622	79	134	687	51
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	1737	1737	1870	1737	1737
Adj Flow Rate, veh/h	48	121	202	65	96	140	144	768	98	165	848	63
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	2	11	11
Cap, veh/h	115	145	243	115	159	231	181	963	123	205	1061	79
Arrive On Green	0.06	0.23	0.23	0.06	0.23	0.23	0.10	0.33	0.33	0.12	0.34	0.34
Sat Flow, veh/h	1781	630	1051	1781	687	1002	1781	2944	376	1781	3114	231
Grp Volume(v), veh/h	48	0	323	65	0	236	144	430	436	165	449	462
Grp Sat Flow(s),veh/h/ln	1781	0	1681	1781	0	1690	1781	1650	1669	1781	1650	1695
Q Serve(g_s), s	2.0	0.0	14.2	2.7	0.0	9.7	6.1	18.4	18.4	7.0	19.1	19.1
Cycle Q Clear(g_c), s	2.0	0.0	14.2	2.7	0.0	9.7	6.1	18.4	18.4	7.0	19.1	19.1
Prop In Lane	1.00		0.63	1.00		0.59	1.00		0.22	1.00		0.14
Lane Grp Cap(c), veh/h	115	0	388	115	0	390	181	540	546	205	562	578
V/C Ratio(X)	0.42	0.00	0.83	0.57	0.00	0.60	0.79	0.80	0.80	0.80	0.80	0.80
Avail Cap(c_a), veh/h	140	0	658	159	0	679	285	727	735	329	767	788
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	0.0	28.3	35.2	0.0	26.6	34.0	23.7	23.7	33.4	23.1	23.1
Incr Delay (d2), s/veh	2.4	0.0	4.7	4.3	0.0	1.5	7.9	4.5	4.5	7.3	4.3	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	6.0	1.3	0.0	3.9	3.0	7.4	7.5	3.4	7.6	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.2	0.0	33.0	39.5	0.0	28.1	41.9	28.2	28.2	40.7	27.4	27.3
LnGrp LOS	D	A	C	D	A	C	D	C	C	D	C	C
Approach Vol, veh/h		371			301			1010			1076	
Approach Delay, s/veh		33.6			30.6			30.2			29.4	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.6	30.7	10.1	23.0	12.6	31.8	10.1	23.0
Change Period (Y+Rc), s	* 4.7	5.4	5.1	5.1	* 4.7	5.4	5.1	5.1
Max Green Setting (Gmax), s	* 14	34.1	6.9	30.3	* 12	36.0	6.1	31.1
Max Q Clear Time (g_c+I1), s	9.0	20.4	4.7	16.2	8.1	21.1	4.0	11.7
Green Ext Time (p_c), s	0.2	4.8	0.0	1.7	0.1	5.3	0.0	1.3

Intersection Summary	
HCM 6th Ctrl Delay	30.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	NBT	NBR	SBL	SBT	SEL	SET	SER	NWL	NWT
Lane Group Flow (vph)	247	304	146	139	3	514	146	204	380
v/c Ratio	0.70	0.57	0.56	0.51	0.03	0.75	0.29	0.71	0.28
Control Delay	44.8	10.4	44.0	41.6	44.0	40.8	2.6	50.3	18.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.8	10.4	44.0	41.6	44.0	40.8	2.6	50.3	18.2
Queue Length 50th (ft)	130	12	79	74	2	142	0	109	64
Queue Length 95th (ft)	225	87	142	134	11	219	13	#223	133
Internal Link Dist (ft)	479			5386		3214			2844
Turn Bay Length (ft)		100	100		220		100	220	
Base Capacity (vph)	453	605	441	463	107	793	539	336	1404
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.50	0.33	0.30	0.03	0.65	0.27	0.61	0.27

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	134	93	280	134	124	4	3	473	134	188	301	49
Future Volume (veh/h)	134	93	280	134	124	4	3	473	134	188	301	49
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	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	146	101	304	146	135	4	3	514	146	204	327	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	8	2	2	8	8
Cap, veh/h	243	168	358	207	210	6	7	667	312	248	971	156
Arrive On Green	0.23	0.23	0.23	0.12	0.12	0.12	0.00	0.20	0.20	0.14	0.33	0.33
Sat Flow, veh/h	1074	743	1585	1781	1807	54	1781	3385	1585	1781	2921	469
Grp Volume(v), veh/h	247	0	304	146	0	139	3	514	146	204	188	192
Grp Sat Flow(s),veh/h/ln	1817	0	1585	1781	0	1861	1781	1692	1585	1781	1692	1697
Q Serve(g_s), s	9.0	0.0	13.6	5.8	0.0	5.3	0.1	10.7	6.0	8.2	6.2	6.3
Cycle Q Clear(g_c), s	9.0	0.0	13.6	5.8	0.0	5.3	0.1	10.7	6.0	8.2	6.2	6.3
Prop In Lane	0.59		1.00	1.00		0.03	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	411	0	358	207	0	216	7	667	312	248	562	564
V/C Ratio(X)	0.60	0.00	0.85	0.70	0.00	0.64	0.42	0.77	0.47	0.82	0.33	0.34
Avail Cap(c_a), veh/h	505	0	441	493	0	515	120	891	417	375	688	689
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.7	0.0	27.5	31.5	0.0	31.3	36.8	28.2	26.3	31.0	18.6	18.6
Incr Delay (d2), s/veh	1.4	0.0	12.2	4.3	0.0	3.2	34.2	3.0	1.1	8.6	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.0	5.7	2.5	0.0	2.3	0.1	4.1	2.1	3.7	2.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	0.0	39.7	35.9	0.0	34.4	71.0	31.1	27.4	39.6	18.9	19.0
LnGrp LOS	C	A	D	D	A	C	E	C	C	D	B	B
Approach Vol, veh/h		551			285			663			584	
Approach Delay, s/veh		34.0			35.2			30.5			26.2	
Approach LOS		C			D			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.2	15.7	21.1		15.1	5.7	31.1				
Change Period (Y+Rc), s		5.4	5.4	6.5		6.5	5.4	6.5				
Max Green Setting (Gmax), s		20.6	15.6	19.5		20.5	5.0	30.1				
Max Q Clear Time (g_c+I1), s		15.6	10.2	12.7		7.8	2.1	8.3				
Green Ext Time (p_c), s		1.1	0.2	1.9		0.8	0.0	1.8				

Intersection Summary		
HCM 6th Ctrl Delay		30.9
HCM 6th LOS		C

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	213	974	46	1035
v/c Ratio	0.47	0.56	0.19	0.51
Control Delay	14.1	13.8	22.5	7.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	14.1	13.8	22.5	7.7
Queue Length 50th (ft)	23	68	9	76
Queue Length 95th (ft)	72	#217	36	130
Internal Link Dist (ft)	974	2580		1224
Turn Bay Length (ft)			10	
Base Capacity (vph)	1381	1737	238	2409
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.15	0.56	0.19	0.43

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	95	82	716	92	38	859
Future Volume (veh/h)	95	82	716	92	38	859
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1737	1737	1870	1737
Adj Flow Rate, veh/h	114	99	863	111	46	1035
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	11	11	2	11
Cap, veh/h	152	132	1111	143	89	1895
Arrive On Green	0.17	0.17	0.38	0.38	0.05	0.57
Sat Flow, veh/h	898	780	3028	378	1781	3387
Grp Volume(v), veh/h	214	0	484	490	46	1035
Grp Sat Flow(s),veh/h/ln	1685	0	1650	1669	1781	1650
Q Serve(g_s), s	4.9	0.0	10.6	10.6	1.0	8.0
Cycle Q Clear(g_c), s	4.9	0.0	10.6	10.6	1.0	8.0
Prop In Lane	0.53	0.46		0.23	1.00	
Lane Grp Cap(c), veh/h	285	0	623	630	89	1895
V/C Ratio(X)	0.75	0.00	0.78	0.78	0.52	0.55
Avail Cap(c_a), veh/h	1278	0	726	735	218	1895
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	16.2	0.0	11.2	11.2	18.9	5.4
Incr Delay (d2), s/veh	4.0	0.0	4.6	4.5	4.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	3.7	3.7	0.5	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.2	0.0	15.8	15.8	23.6	5.7
LnGrp LOS	C	A	B	B	C	A
Approach Vol, veh/h	214		974			1081
Approach Delay, s/veh	20.2		15.8			6.5
Approach LOS	C		B			A

Timer - Assigned Phs	1	2	6	8
Phs Duration (G+Y+Rc), s	8.0	21.4	29.5	11.4
Change Period (Y+Rc), s	6.0	6.0	6.0	4.5
Max Green Setting (Gmax), s	5.0	18.0	18.0	31.0
Max Q Clear Time (g_c+I1), s	3.0	12.6	10.0	6.9
Green Ext Time (p_c), s	0.0	2.9	4.4	0.6

Intersection Summary	
HCM 6th Ctrl Delay	11.8
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	48	255	121	120	332	70	598	99	368	611
v/c Ratio	0.31	0.61	0.56	0.21	0.38	0.35	0.84	0.17	0.87	0.44
Control Delay	31.5	23.4	36.1	23.9	6.9	30.2	36.1	0.6	46.3	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	23.4	36.1	23.9	6.9	30.2	36.1	0.6	46.3	15.1
Queue Length 50th (ft)	17	28	42	21	36	24	111	0	129	92
Queue Length 95th (ft)	43	58	#93	41	80	56	#184	0	#255	132
Internal Link Dist (ft)		1219		1008			1659			690
Turn Bay Length (ft)	400		215		100	225		225	250	
Base Capacity (vph)	157	420	229	591	875	207	728	604	437	1403
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.61	0.53	0.20	0.38	0.34	0.82	0.16	0.84	0.44

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	137	85	105	104	289	61	520	86	320	514	17
Future Volume (veh/h)	42	137	85	105	104	289	61	520	86	320	514	17
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	1737	1870	1870	1737	1737
Adj Flow Rate, veh/h	48	157	98	121	120	332	70	598	99	368	591	20
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	11	2	2	11	11
Cap, veh/h	83	213	126	155	470	583	105	710	341	419	1274	43
Arrive On Green	0.05	0.10	0.10	0.09	0.13	0.13	0.06	0.21	0.21	0.24	0.39	0.39
Sat Flow, veh/h	1781	2150	1269	1781	3554	1585	1781	3300	1585	1781	3257	110
Grp Volume(v), veh/h	48	128	127	121	120	332	70	598	99	368	299	312
Grp Sat Flow(s),veh/h/ln	1781	1777	1642	1781	1777	1585	1781	1650	1585	1781	1650	1717
Q Serve(g_s), s	1.5	4.0	4.3	3.8	1.7	7.5	2.2	9.8	3.0	11.3	7.6	7.7
Cycle Q Clear(g_c), s	1.5	4.0	4.3	3.8	1.7	7.5	2.2	9.8	3.0	11.3	7.6	7.7
Prop In Lane	1.00		0.77	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	83	176	163	155	470	583	105	710	341	419	646	672
V/C Ratio(X)	0.58	0.73	0.78	0.78	0.26	0.57	0.67	0.84	0.29	0.88	0.46	0.46
Avail Cap(c_a), veh/h	157	176	163	230	470	583	207	734	352	437	646	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.5	24.8	24.9	25.3	22.1	14.3	26.1	21.3	18.6	20.9	12.8	12.8
Incr Delay (d2), s/veh	6.1	14.1	21.2	9.6	0.3	1.3	7.1	8.6	0.5	17.6	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.2	2.4	1.8	0.7	3.0	1.0	4.1	1.0	6.1	2.4	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.6	38.9	46.2	34.9	22.4	15.7	33.2	29.9	19.1	38.5	13.3	13.3
LnGrp LOS	C	D	D	C	C	B	C	C	B	D	B	B
Approach Vol, veh/h		303			573			767			979	
Approach Delay, s/veh		41.0			21.1			28.8			22.8	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.4	17.6	9.6	11.0	8.4	27.6	7.8	12.9
Change Period (Y+Rc), s	5.1	5.4	* 4.7	5.4	5.1	5.4	5.1	5.4
Max Green Setting (Gmax), s	13.9	12.6	* 7.3	5.6	6.6	19.9	5.0	7.5
Max Q Clear Time (g_c+I1), s	13.3	11.8	5.8	6.3	4.2	9.7	3.5	9.5
Green Ext Time (p_c), s	0.1	0.3	0.0	0.0	0.0	2.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	26.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	16.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	367	117	136	354	111	131
Future Vol, veh/h	367	117	136	354	111	131
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	412	131	153	398	125	147

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	543	0	1182	478
Stage 1	-	-	-	-	478	-
Stage 2	-	-	-	-	704	-
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	-	-	1026	-	210	587
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	490	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1026	-	179	587
Mov Cap-2 Maneuver	-	-	-	-	179	-
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	417	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	79.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	287	-	-	1026	-
HCM Lane V/C Ratio	0.947	-	-	0.149	-
HCM Control Delay (s)	79.8	-	-	9.1	-
HCM Lane LOS	F	-	-	A	-
HCM 95th %tile Q(veh)	9.2	-	-	0.5	-

Lane Group	EBT	EBR	WBT	SEL	SET	SER	NWL	NWT
Lane Group Flow (vph)	292	246	250	57	360	59	324	347
v/c Ratio	0.69	0.43	0.57	0.33	0.73	0.11	0.74	0.39
Control Delay	35.6	7.0	29.5	42.1	35.0	0.4	38.9	14.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.6	7.0	29.5	42.1	35.0	0.4	38.9	14.5
Queue Length 50th (ft)	121	4	94	25	150	0	135	104
Queue Length 95th (ft)	232	60	188	70	274	0	#288	191
Internal Link Dist (ft)	884		1579		1178			1731
Turn Bay Length (ft)		100		100			200	
Base Capacity (vph)	617	733	638	187	718	728	581	1104
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.34	0.39	0.30	0.50	0.08	0.56	0.31

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	42	226	226	22	165	43	52	331	54	298	296	23
Future Volume (veh/h)	42	226	226	22	165	43	52	331	54	298	296	23
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	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	46	246	246	24	179	47	57	360	59	324	322	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	8	2	2	8	8
Cap, veh/h	120	371	364	88	259	63	96	471	419	397	708	55
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.05	0.26	0.26	0.22	0.43	0.43
Sat Flow, veh/h	180	1617	1585	58	1130	275	1781	1781	1585	1781	1632	127
Grp Volume(v), veh/h	292	0	246	250	0	0	57	360	59	324	0	347
Grp Sat Flow(s),veh/h/ln	1797	0	1585	1462	0	0	1781	1781	1585	1781	0	1759
Q Serve(g_s), s	0.0	0.0	7.5	1.2	0.0	0.0	1.6	9.8	1.5	9.1	0.0	7.3
Cycle Q Clear(g_c), s	7.7	0.0	7.5	8.9	0.0	0.0	1.6	9.8	1.5	9.1	0.0	7.3
Prop In Lane	0.16		1.00	0.10		0.19	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	492	0	364	411	0	0	96	471	419	397	0	763
V/C Ratio(X)	0.59	0.00	0.68	0.61	0.00	0.00	0.60	0.76	0.14	0.82	0.00	0.45
Avail Cap(c_a), veh/h	911	0	754	816	0	0	243	936	833	753	0	1427
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	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.6	0.0	18.5	18.4	0.0	0.0	24.4	17.9	14.8	19.5	0.0	10.5
Incr Delay (d2), s/veh	1.1	0.0	2.2	1.5	0.0	0.0	5.8	2.6	0.2	4.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	2.7	2.6	0.0	0.0	0.8	3.9	0.5	3.8	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.7	0.0	20.7	19.9	0.0	0.0	30.2	20.5	15.0	23.6	0.0	10.9
LnGrp LOS	B	A	C	B	A	A	C	C	B	C	A	B
Approach Vol, veh/h		538			250			476			671	
Approach Delay, s/veh		20.2			19.9			21.0			17.0	
Approach LOS		C			B			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	28.0		17.2	16.5	19.1		17.2				
Change Period (Y+Rc), s	* 4.7	5.1		5.1	* 4.7	5.1		5.1				
Max Green Setting (Gmax), s	* 7.2	42.8		25.1	* 22	27.7		25.1				
Max Q Clear Time (g_c+I1), s	3.6	9.3		9.7	11.1	11.8		10.9				
Green Ext Time (p_c), s	0.0	2.3		2.4	0.8	2.1		1.2				
Intersection Summary												
HCM 6th Ctrl Delay			19.2									
HCM 6th LOS			B									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	361	284	512	395
v/c Ratio	0.66	0.67	0.79	0.56
Control Delay	16.1	19.2	21.8	12.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	16.1	19.2	21.8	12.8
Queue Length 50th (ft)	60	52	83	58
Queue Length 95th (ft)	124	113	#246	136
Internal Link Dist (ft)	1579	1246	1034	1250
Turn Bay Length (ft)				
Base Capacity (vph)	756	597	778	846
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.48	0.48	0.66	0.47

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	150	94	141	88	32	84	249	138	21	269	74
Future Volume (veh/h)	88	150	94	141	88	32	84	249	138	21	269	74
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	96	163	102	153	96	35	91	271	150	23	292	80
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	241	260	141	384	199	57	210	381	190	137	537	141
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	332	881	478	711	672	194	197	977	487	44	1376	361
Grp Volume(v), veh/h	361	0	0	284	0	0	512	0	0	395	0	0
Grp Sat Flow(s),veh/h/ln	1691	0	0	1578	0	0	1661	0	0	1780	0	0
Q Serve(g_s), s	1.4	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.8	0.0	0.0	4.4	0.0	0.0	8.3	0.0	0.0	5.4	0.0	0.0
Prop In Lane	0.27		0.28	0.54		0.12	0.18		0.29	0.06		0.20
Lane Grp Cap(c), veh/h	643	0	0	640	0	0	782	0	0	815	0	0
V/C Ratio(X)	0.56	0.00	0.00	0.44	0.00	0.00	0.66	0.00	0.00	0.48	0.00	0.00
Avail Cap(c_a), veh/h	1071	0	0	1005	0	0	1054	0	0	1115	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.9	0.0	0.0	9.4	0.0	0.0	8.3	0.0	0.0	7.6	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.5	0.0	0.0	0.9	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.0	1.2	0.0	0.0	2.0	0.0	0.0	1.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.7	0.0	0.0	9.9	0.0	0.0	9.3	0.0	0.0	8.0	0.0	0.0
LnGrp LOS	B	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		361			284			512			395	
Approach Delay, s/veh		10.7			9.9			9.3			8.0	
Approach LOS		B			A			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		17.4		14.4		17.4		14.4				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		10.3		7.8		7.4		6.4				
Green Ext Time (p_c), s		2.2		1.6		1.8		1.4				
Intersection Summary												
HCM 6th Ctrl Delay			9.4									
HCM 6th LOS			A									

Lane Group	NBL	NBT	NBR	SBL	SBT	SET	SER	NWL	NWT
Lane Group Flow (vph)	316	437	255	108	437	342	313	251	457
v/c Ratio	0.92	0.67	0.26	0.72	0.92	0.93	0.67	0.91	0.65
Control Delay	78.7	36.2	5.7	79.1	67.3	79.1	26.8	85.3	33.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.7	36.2	5.7	79.1	67.3	79.1	26.8	85.3	33.1
Queue Length 50th (ft)	242	275	36	83	325	263	99	194	278
Queue Length 95th (ft)	#412	393	77	#170	#512	#444	203	#353	398
Internal Link Dist (ft)		639			101	192			1578
Turn Bay Length (ft)			60	110			100	190	
Base Capacity (vph)	357	688	986	158	508	377	476	281	721
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.64	0.26	0.68	0.86	0.91	0.66	0.89	0.63

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	288	398	232	98	398	0	0	311	285	228	348	68
Future Volume (veh/h)	288	398	232	98	398	0	0	311	285	228	348	68
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	1737	1870	1870	1737	0	0	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	316	437	0	108	437	0	0	342	313	251	382	75
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	11	2	2	11	0	0	8	2	2	8	8
Cap, veh/h	343	674		133	470	0	0	378	336	277	589	116
Arrive On Green	0.19	0.39	0.00	0.07	0.27	0.00	0.00	0.21	0.21	0.16	0.41	0.41
Sat Flow, veh/h	1781	1737	1585	1781	1737	0	0	1781	1585	1781	1446	284
Grp Volume(v), veh/h	316	437	0	108	437	0	0	342	313	251	0	457
Grp Sat Flow(s),veh/h/ln	1781	1737	1585	1781	1737	0	0	1781	1585	1781	0	1730
Q Serve(g_s), s	20.3	24.0	0.0	7.0	28.6	0.0	0.0	21.8	22.6	16.1	0.0	24.8
Cycle Q Clear(g_c), s	20.3	24.0	0.0	7.0	28.6	0.0	0.0	21.8	22.6	16.1	0.0	24.8
Prop In Lane	1.00		1.00	1.00		0.00	0.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	343	674		133	470	0	0	378	336	277	0	705
V/C Ratio(X)	0.92	0.65		0.81	0.93	0.00	0.00	0.91	0.93	0.90	0.00	0.65
Avail Cap(c_a), veh/h	358	695		159	513	0	0	381	339	281	0	711
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	46.2	29.1	0.0	53.1	41.4	0.0	0.0	44.8	45.1	48.3	0.0	27.8
Incr Delay (d2), s/veh	28.2	2.0	0.0	22.7	22.6	0.0	0.0	24.4	31.6	30.0	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.6	10.2	0.0	3.9	15.0	0.0	0.0	11.9	11.7	9.4	0.0	10.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.3	31.2	0.0	75.8	64.0	0.0	0.0	69.1	76.7	78.4	0.0	29.8
LnGrp LOS	E	C		E	E	A	A	E	E	E	A	C
Approach Vol, veh/h		753	A		545			655			708	
Approach Delay, s/veh		49.3			66.3			72.7			47.0	
Approach LOS		D			E			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	8
Phs Duration (G+Y+Rc), s	13.3	50.6	22.7	29.8	27.0	36.9	52.6
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	* 5.4	5.1
Max Green Setting (Gmax), s	10.4	46.6	18.4	24.9	23.4	* 34	47.9
Max Q Clear Time (g_c+I1), s	9.0	26.0	18.1	24.6	22.3	30.6	26.8
Green Ext Time (p_c), s	0.0	2.7	0.0	0.1	0.1	1.0	2.8

Intersection Summary	
HCM 6th Ctrl Delay	58.0
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	45	196	110	373	115	785	168	785
v/c Ratio	0.31	0.52	0.51	0.75	0.56	0.77	0.63	0.61
Control Delay	45.2	25.8	45.4	32.1	49.2	30.7	45.9	23.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.2	25.8	45.4	32.1	49.2	30.7	45.9	23.6
Queue Length 50th (ft)	25	61	59	144	63	202	90	188
Queue Length 95th (ft)	60	128	113	#279	#135	277	#170	257
Internal Link Dist (ft)		615		635		1224		2566
Turn Bay Length (ft)	100		100		135		135	
Base Capacity (vph)	150	482	258	584	228	1284	327	1465
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.41	0.43	0.64	0.50	0.61	0.51	0.54

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	74	107	101	116	227	106	652	70	155	675	47
Future Volume (veh/h)	41	74	107	101	116	227	106	652	70	155	675	47
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	1737	1737	1870	1737	1737
Adj Flow Rate, veh/h	45	80	116	110	126	247	115	709	76	168	734	51
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	2	11	11
Cap, veh/h	119	171	248	141	143	279	147	881	94	209	1025	71
Arrive On Green	0.07	0.25	0.25	0.08	0.25	0.25	0.08	0.29	0.29	0.12	0.33	0.33
Sat Flow, veh/h	1781	690	1000	1781	565	1107	1781	3007	322	1781	3131	217
Grp Volume(v), veh/h	45	0	196	110	0	373	115	389	396	168	387	398
Grp Sat Flow(s),veh/h/ln	1781	0	1690	1781	0	1671	1781	1650	1679	1781	1650	1698
Q Serve(g_s), s	1.8	0.0	7.4	4.5	0.0	16.1	4.7	16.3	16.4	6.9	15.4	15.4
Cycle Q Clear(g_c), s	1.8	0.0	7.4	4.5	0.0	16.1	4.7	16.3	16.4	6.9	15.4	15.4
Prop In Lane	1.00		0.59	1.00		0.66	1.00		0.19	1.00		0.13
Lane Grp Cap(c), veh/h	119	0	419	141	0	422	147	483	492	209	540	556
V/C Ratio(X)	0.38	0.00	0.47	0.78	0.00	0.88	0.78	0.80	0.81	0.80	0.72	0.72
Avail Cap(c_a), veh/h	145	0	419	249	0	488	221	625	636	316	713	734
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.5	0.0	24.0	33.9	0.0	27.0	33.7	24.5	24.5	32.3	22.1	22.1
Incr Delay (d2), s/veh	2.0	0.0	0.8	8.8	0.0	15.7	9.9	5.9	5.8	8.6	2.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	2.9	2.3	0.0	7.9	2.4	6.8	6.9	3.4	6.0	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.5	0.0	24.8	42.7	0.0	42.7	43.7	30.4	30.3	40.9	24.5	24.4
LnGrp LOS	D	A	C	D	A	D	D	C	C	D	C	C
Approach Vol, veh/h		241			483			900			953	
Approach Delay, s/veh		26.8			42.7			32.1			27.3	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.5	27.4	10.5	23.7	10.9	30.0	10.1	24.0
Change Period (Y+Rc), s	* 4.7	5.4	4.5	5.1	* 4.7	5.4	5.1	5.1
Max Green Setting (Gmax), s	* 13	28.4	10.5	18.1	* 9.3	32.4	6.1	21.9
Max Q Clear Time (g_c+I1), s	8.9	18.4	6.5	9.4	6.7	17.4	3.8	18.1
Green Ext Time (p_c), s	0.2	3.6	0.1	0.7	0.1	4.5	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	31.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	NBT	NBR	SBL	SBT	SEL	SET	SER	NWL	NWT
Lane Group Flow (vph)	329	210	110	181	3	504	205	285	671
v/c Ratio	0.76	0.38	0.43	0.68	0.03	0.90	0.46	0.90	0.52
Control Delay	43.5	5.1	42.0	50.5	45.0	58.8	8.6	71.0	25.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.5	5.1	42.0	50.5	45.0	58.8	8.6	71.0	25.0
Queue Length 50th (ft)	175	0	58	98	2	152	0	163	146
Queue Length 95th (ft)	272	43	118	181	11	#283	56	#356	273
Internal Link Dist (ft)	479			5386		3214			2844
Turn Bay Length (ft)		100	100		220		200	220	
Base Capacity (vph)	610	686	309	325	99	562	444	315	1287
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.31	0.36	0.56	0.03	0.90	0.46	0.90	0.52

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	199	104	193	101	159	7	3	464	189	262	546	72
Future Volume (veh/h)	199	104	193	101	159	7	3	464	189	262	546	72
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	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	216	113	210	110	173	8	3	504	205	285	593	78
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	8	2	2	8	8
Cap, veh/h	266	139	355	224	223	10	7	592	277	323	1060	139
Arrive On Green	0.22	0.22	0.22	0.13	0.13	0.13	0.00	0.17	0.17	0.18	0.35	0.35
Sat Flow, veh/h	1189	622	1585	1781	1774	82	1781	3385	1585	1781	3008	395
Grp Volume(v), veh/h	329	0	210	110	0	181	3	504	205	285	333	338
Grp Sat Flow(s),veh/h/ln	1811	0	1585	1781	0	1856	1781	1692	1585	1781	1692	1710
Q Serve(g_s), s	14.0	0.0	9.6	4.7	0.0	7.7	0.1	11.7	9.9	12.6	12.9	12.9
Cycle Q Clear(g_c), s	14.0	0.0	9.6	4.7	0.0	7.7	0.1	11.7	9.9	12.6	12.9	12.9
Prop In Lane	0.66		1.00	1.00		0.04	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	406	0	355	224	0	233	7	592	277	323	596	603
V/C Ratio(X)	0.81	0.00	0.59	0.49	0.00	0.78	0.42	0.85	0.74	0.88	0.56	0.56
Avail Cap(c_a), veh/h	670	0	587	341	0	355	110	622	291	347	596	603
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	0.0	28.1	33.0	0.0	34.3	40.3	32.4	31.7	32.3	21.2	21.2
Incr Delay (d2), s/veh	3.9	0.0	1.6	1.7	0.0	5.8	34.4	10.6	9.1	21.3	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	0.0	3.4	1.9	0.0	3.5	0.1	5.2	4.1	6.8	4.6	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.7	0.0	29.7	34.7	0.0	40.2	74.7	43.0	40.8	53.6	22.3	22.4
LnGrp LOS	C	A	C	C	A	D	E	D	D	D	C	C
Approach Vol, veh/h		539			291			712			956	
Approach Delay, s/veh		32.2			38.1			42.5			31.7	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	2	3	4		6	7	8
Phs Duration (G+Y+Rc), s	23.6	20.1	20.7		16.7	5.7	35.1
Change Period (Y+Rc), s	5.4	5.4	6.5		6.5	5.4	6.5
Max Green Setting (Gmax), s	30.0	15.8	14.9		15.5	5.0	25.7
Max Q Clear Time (g_c+I1), s	16.0	14.6	13.7		9.7	2.1	14.9
Green Ext Time (p_c), s	2.2	0.1	0.5		0.6	0.0	2.6

Intersection Summary	
HCM 6th Ctrl Delay	35.6
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	128	85	5	107	861	698
v/c Ratio	0.35	0.14	0.01	0.38	0.41	0.45
Control Delay	18.9	0.5	13.6	28.3	6.4	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.9	0.5	13.6	28.3	6.4	12.6
Queue Length 50th (ft)	30	0	1	28	57	74
Queue Length 95th (ft)	69	0	7	#92	113	134
Internal Link Dist (ft)		226	142		628	922
Turn Bay Length (ft)	70			60		
Base Capacity (vph)	884	1099	929	285	2213	1653
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.08	0.01	0.38	0.39	0.42

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	0	78	3	1	1	98	779	13	0	592	51
Future Volume (veh/h)	118	0	78	3	1	1	98	779	13	0	592	51
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	1737	1737	1737	1737	1737
Adj Flow Rate, veh/h	128	0	85	3	1	1	107	847	14	0	643	55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	11	11	11
Cap, veh/h	421	0	213	244	75	37	167	1895	31	0	1013	87
Arrive On Green	0.13	0.00	0.13	0.13	0.13	0.13	0.09	0.57	0.57	0.00	0.33	0.33
Sat Flow, veh/h	1415	0	1585	552	554	277	1781	3322	55	0	3164	263
Grp Volume(v), veh/h	128	0	85	5	0	0	107	421	440	0	344	354
Grp Sat Flow(s),veh/h/ln	1415	0	1585	1383	0	0	1781	1650	1727	0	1650	1690
Q Serve(g_s), s	0.8	0.0	1.7	0.0	0.0	0.0	2.0	5.0	5.0	0.0	6.0	6.0
Cycle Q Clear(g_c), s	2.4	0.0	1.7	1.7	0.0	0.0	2.0	5.0	5.0	0.0	6.0	6.0
Prop In Lane	1.00		1.00	0.60		0.20	1.00		0.03	0.00		0.16
Lane Grp Cap(c), veh/h	421	0	213	356	0	0	167	941	985	0	543	556
V/C Ratio(X)	0.30	0.00	0.40	0.01	0.00	0.00	0.64	0.45	0.45	0.00	0.63	0.64
Avail Cap(c_a), veh/h	1274	0	1169	931	0	0	263	941	985	0	877	898
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	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	13.7	0.0	13.4	12.7	0.0	0.0	14.8	4.2	4.2	0.0	9.6	9.6
Incr Delay (d2), s/veh	0.4	0.0	1.2	0.0	0.0	0.0	4.1	0.3	0.3	0.0	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.5	0.0	0.0	0.0	0.8	0.7	0.8	0.0	1.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.1	0.0	14.6	12.7	0.0	0.0	18.9	4.5	4.5	0.0	10.9	10.9
LnGrp LOS	B	A	B	B	A	A	B	A	A	A	B	B
Approach Vol, veh/h		213			5			968			698	
Approach Delay, s/veh		14.3			12.7			6.1			10.9	
Approach LOS		B			B			A			B	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		24.3		9.6	8.2	16.2		9.6				
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s		18.0		25.0	5.0	18.0		18.0				
Max Q Clear Time (g_c+I1), s		7.0		4.4	4.0	8.0		3.7				
Green Ext Time (p_c), s		4.2		0.8	0.0	3.1		0.0				

Intersection Summary			
HCM 6th Ctrl Delay			8.8
HCM 6th LOS			A

Lane Group	EBL	EBT	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	128	178	12	215	711	604	70
v/c Ratio	0.78	0.52	0.07	0.41	0.68	1.00	0.12
Control Delay	59.4	10.8	17.5	17.8	20.3	61.2	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.4	10.8	17.5	17.8	20.3	61.2	1.5
Queue Length 50th (ft)	42	0	1	54	103	~206	0
Queue Length 95th (ft)	#121	47	14	103	152	#386	8
Internal Link Dist (ft)		1120	841		1106	348	
Turn Bay Length (ft)	100						275
Base Capacity (vph)	164	342	175	571	1143	601	597
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.52	0.07	0.38	0.62	1.00	0.12

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	1	163	4	1	6	198	654	0	3	553	64
Future Volume (veh/h)	118	1	163	4	1	6	198	654	0	3	553	64
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	0	1870	1870	1870
Adj Flow Rate, veh/h	128	1	177	4	1	7	215	711	0	3	601	70
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	0	2	2	2
Cap, veh/h	298	1	192	98	41	64	486	970	0	3	621	529
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.27	0.27	0.00	0.33	0.33	0.33
Sat Flow, veh/h	1407	9	1577	42	333	525	1781	3647	0	9	1861	1585
Grp Volume(v), veh/h	128	0	178	12	0	0	215	711	0	604	0	70
Grp Sat Flow(s),veh/h/ln	1407	0	1586	900	0	0	1781	1777	0	1870	0	1585
Q Serve(g_s), s	0.0	0.0	5.8	0.0	0.0	0.0	5.2	9.4	0.0	16.5	0.0	1.6
Cycle Q Clear(g_c), s	5.0	0.0	5.8	5.8	0.0	0.0	5.2	9.4	0.0	16.5	0.0	1.6
Prop In Lane	1.00		0.99	0.33		0.58	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	298	0	193	202	0	0	486	970	0	624	0	529
V/C Ratio(X)	0.43	0.00	0.92	0.06	0.00	0.00	0.44	0.73	0.00	0.97	0.00	0.13
Avail Cap(c_a), veh/h	298	0	193	202	0	0	594	1186	0	624	0	529
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	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.2	0.0	22.5	20.2	0.0	0.0	15.6	17.1	0.0	17.0	0.0	12.0
Incr Delay (d2), s/veh	1.0	0.0	43.7	0.1	0.0	0.0	0.6	1.9	0.0	28.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	4.3	0.1	0.0	0.0	1.9	3.6	0.0	10.9	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.2	0.0	66.2	20.4	0.0	0.0	16.2	19.0	0.0	45.1	0.0	12.2
LnGrp LOS	C	A	E	C	A	A	B	B	A	D	A	B
Approach Vol, veh/h		306			12			926			674	
Approach Delay, s/veh		48.2			20.4			18.4			41.7	
Approach LOS		D			C			B			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		18.9		11.0		22.0		11.0				
Change Period (Y+Rc), s		* 4.7		* 4.7		4.7		* 4.7				
Max Green Setting (Gmax), s		* 17		* 6.3		17.3		* 6.3				
Max Q Clear Time (g_c+I1), s		11.4		7.8		18.5		7.8				
Green Ext Time (p_c), s		2.7		0.0		0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay			31.3
HCM 6th LOS			C

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3.7

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	170	20	65	210	1	65	1	40	1	1	0
Future Vol, veh/h	0	170	20	65	210	1	65	1	40	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	0	195	23	75	241	1	75	1	46	1	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	242	0	0	218	0	0	599	599	207	622	610	242
Stage 1	-	-	-	-	-	-	207	207	-	392	392	-
Stage 2	-	-	-	-	-	-	392	392	-	230	218	-
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	1324	-	-	1352	-	-	413	415	833	399	409	797
Stage 1	-	-	-	-	-	-	795	731	-	633	606	-
Stage 2	-	-	-	-	-	-	633	606	-	773	723	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1324	-	-	1352	-	-	392	388	833	358	383	797
Mov Cap-2 Maneuver	-	-	-	-	-	-	392	388	-	358	383	-
Stage 1	-	-	-	-	-	-	795	731	-	633	567	-
Stage 2	-	-	-	-	-	-	591	567	-	729	723	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0	1.8	14.8	14.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	490	1352	-	-	1324	-	-	370
HCM Lane V/C Ratio	0.249	0.055	-	-	-	-	-	0.006
HCM Control Delay (s)	14.8	7.8	0	-	0	-	-	14.8
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	1	0.2	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	10	45	35	160	230	10
Future Vol, veh/h	10	45	35	160	230	10
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	8	8	2
Mvmt Flow	11	52	40	184	264	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	534	270	275	0	-	0
Stage 1	270	-	-	-	-	-
Stage 2	264	-	-	-	-	-
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	507	769	1288	-	-	-
Stage 1	775	-	-	-	-	-
Stage 2	780	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	489	769	1288	-	-	-
Mov Cap-2 Maneuver	489	-	-	-	-	-
Stage 1	748	-	-	-	-	-
Stage 2	780	-	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s	10.7	1.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWR	WBLn1	SEL	SET
Capacity (veh/h)	-	-	696	1288	-
HCM Lane V/C Ratio	-	-	0.091	0.031	-
HCM Control Delay (s)	-	-	10.7	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	25	15	25	20	1	20	40	20	5	40	1
Future Vol, veh/h	5	25	15	25	20	1	20	40	20	5	40	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	29	17	29	23	1	23	47	23	6	47	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.4	7.7	7.6	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	11%	54%	11%
Vol Thru, %	50%	56%	43%	87%
Vol Right, %	25%	33%	2%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	80	45	46	46
LT Vol	20	5	25	5
Through Vol	40	25	20	40
RT Vol	20	15	1	1
Lane Flow Rate	93	52	53	53
Geometry Grp	1	1	1	1
Degree of Util (X)	0.105	0.059	0.064	0.062
Departure Headway (Hd)	4.061	4.053	4.326	4.2
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	873	871	818	843
Service Time	2.127	2.137	2.407	2.275
HCM Lane V/C Ratio	0.107	0.06	0.065	0.063
HCM Control Delay	7.6	7.4	7.7	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.2	0.2	0.2

Intersection	
Intersection Delay, s/veh	18.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	0	40	0	1	0	10	450	0	1	545	25
Future Vol, veh/h	25	0	40	0	1	0	10	450	0	1	545	25
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	0	42	0	1	0	11	474	0	1	574	26
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.9	9.6	16.2	22
HCM LOS	A	A	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	38%	0%	0%
Vol Thru, %	98%	0%	100%	95%
Vol Right, %	0%	62%	0%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	460	65	1	571
LT Vol	10	25	0	1
Through Vol	450	0	1	545
RT Vol	0	40	0	25
Lane Flow Rate	484	68	1	601
Geometry Grp	1	1	1	1
Degree of Util (X)	0.644	0.116	0.002	0.776
Departure Headway (Hd)	4.787	6.078	6.591	4.646
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	751	593	546	775
Service Time	2.856	4.078	4.597	2.709
HCM Lane V/C Ratio	0.644	0.115	0.002	0.775
HCM Control Delay	16.2	9.9	9.6	22
HCM Lane LOS	C	A	A	C
HCM 95th-tile Q	4.7	0.4	0	7.7

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	20	80	50	35	10	55	70	35	5	95	20
Future Vol, veh/h	5	20	80	50	35	10	55	70	35	5	95	20
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	26	104	65	45	13	71	91	45	6	123	26
Number of Lanes	0	1	0	0	1	0	0	1	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	8.5	9.1	9.7	8.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	34%	5%	53%	10%	0%
Vol Thru, %	44%	19%	37%	90%	70%
Vol Right, %	22%	76%	11%	0%	30%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	160	105	95	53	68
LT Vol	55	5	50	5	0
Through Vol	70	20	35	48	48
RT Vol	35	80	10	0	20
Lane Flow Rate	208	136	123	68	88
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.276	0.172	0.172	0.102	0.125
Departure Headway (Hd)	4.789	4.529	5.021	5.399	5.142
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	746	787	711	661	693
Service Time	2.845	2.585	3.079	3.16	2.902
HCM Lane V/C Ratio	0.279	0.173	0.173	0.103	0.127
HCM Control Delay	9.7	8.5	9.1	8.8	8.6
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	1.1	0.6	0.6	0.3	0.4

Intersection						
Int Delay, s/veh	2.4					

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	55	45	10	155	190	65
Future Vol, veh/h	55	45	10	155	190	65
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	-	-	-	-	-
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	8	8	2
Mvmt Flow	60	49	11	170	209	71

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	437	245	280	0	-	0
Stage 1	245	-	-	-	-	-
Stage 2	192	-	-	-	-	-
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	577	794	1283	-	-	-
Stage 1	796	-	-	-	-	-
Stage 2	841	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	572	794	1283	-	-	-
Mov Cap-2 Maneuver	572	-	-	-	-	-
Stage 1	789	-	-	-	-	-
Stage 2	841	-	-	-	-	-

Approach	SB	SE	NW
HCM Control Delay, s	11.6	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SBLn1
Capacity (veh/h)	-	-	1283	-	654
HCM Lane V/C Ratio	-	-	0.009	-	0.168
HCM Control Delay (s)	-	-	7.8	0	11.6
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0	-	0.6

Intersection						
Int Delay, s/veh	11.2					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	590	75	150	440	60	135
Future Vol, veh/h	590	75	150	440	60	135
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	621	79	158	463	63	142

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	700	0	1440	661
Stage 1	-	-	-	-	661	-
Stage 2	-	-	-	-	779	-
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	-	-	897	-	146	462
Stage 1	-	-	-	-	514	-
Stage 2	-	-	-	-	452	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	897	-	111	462
Mov Cap-2 Maneuver	-	-	-	-	111	-
Stage 1	-	-	-	-	514	-
Stage 2	-	-	-	-	345	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	75.4
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	234	-	-	897	-
HCM Lane V/C Ratio	0.877	-	-	0.176	-
HCM Control Delay (s)	75.4	-	-	9.9	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	7.2	-	-	0.6	-

Intersection	
Intersection Delay, s/veh	179.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		✣			⫷	↱		✣			⫷	↱
Traffic Vol, veh/h	135	235	335	10	265	20	10	80	120	285	100	5
Future Vol, veh/h	135	235	335	10	265	20	10	80	120	285	100	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	8	2	2	8	2
Mvmt Flow	142	247	353	11	279	21	11	80	126	300	105	5
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	1

Approach	EB	WB	SE	NW
Opposing Approach	WB	EB	NW	SE
Opposing Lanes	2	1	2	1
Conflicting Approach Left	SE	NW	WB	EB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NW	SE	EB	WB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	344.5	31.7	26.5	72.2
HCM LOS	F	D	D	F

Lane	NWLn1	NWLn2	EBLn1	WBLn1	WBLn2	SELn1
Vol Left, %	74%	0%	19%	4%	0%	5%
Vol Thru, %	26%	0%	33%	96%	0%	38%
Vol Right, %	0%	100%	48%	0%	100%	57%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	385	5	705	275	20	210
LT Vol	285	0	135	10	0	10
Through Vol	100	0	235	265	0	80
RT Vol	0	5	335	0	20	120
Lane Flow Rate	405	5	742	289	21	217
Geometry Grp	7	7	6	7	7	6
Degree of Util (X)	0.969	0.011	1.698	0.697	0.046	0.542
Departure Headway (Hd)	10.196	9.18	8.239	10.138	9.381	11.104
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	361	392	445	359	384	327
Service Time	7.896	6.88	6.335	7.838	7.081	9.104
HCM Lane V/C Ratio	1.122	0.013	1.667	0.805	0.055	0.664
HCM Control Delay	73	12	344.5	33.1	12.5	26.5
HCM Lane LOS	F	B	F	D	B	D
HCM 95th-tile Q	10.7	0	43.9	5	0.1	3

Intersection	
Intersection Delay, s/veh	72.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	35	120	30	140	110	25	40	180	105	45	245	45
Future Vol, veh/h	35	120	30	140	110	25	40	180	105	45	245	45
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	164	41	192	151	34	55	247	144	62	336	62
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	29.5	57	83	98.1
HCM LOS	D	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	19%	51%	13%
Vol Thru, %	55%	65%	40%	73%
Vol Right, %	32%	16%	9%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	325	185	275	335
LT Vol	40	35	140	45
Through Vol	180	120	110	245
RT Vol	105	30	25	45
Lane Flow Rate	445	253	377	459
Geometry Grp	1	1	1	1
Degree of Util (X)	1.033	0.653	0.912	1.083
Departure Headway (Hd)	8.674	9.825	9.205	8.69
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	423	370	396	422
Service Time	6.674	7.825	7.205	6.69
HCM Lane V/C Ratio	1.052	0.684	0.952	1.088
HCM Control Delay	83	29.5	57	98.1
HCM Lane LOS	F	D	F	F
HCM 95th-tile Q	13.6	4.4	9.6	15.3

Intersection	
Intersection Delay, s/veh	12
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	135	135	30	70	120	55	45	110	45	15	65	55
Future Vol, veh/h	135	135	30	70	120	55	45	110	45	15	65	55
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	142	142	32	74	126	58	47	116	47	16	68	58
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	13.2	11.8	11.5	10.4
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	45%	29%	11%
Vol Thru, %	55%	45%	49%	48%
Vol Right, %	23%	10%	22%	41%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	200	300	245	135
LT Vol	45	135	70	15
Through Vol	110	135	120	65
RT Vol	45	30	55	55
Lane Flow Rate	211	316	258	142
Geometry Grp	1	1	1	1
Degree of Util (X)	0.331	0.473	0.386	0.223
Departure Headway (Hd)	5.653	5.393	5.382	5.661
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	634	666	665	631
Service Time	3.709	3.442	3.432	3.723
HCM Lane V/C Ratio	0.333	0.474	0.388	0.225
HCM Control Delay	11.5	13.2	11.8	10.4
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.4	2.5	1.8	0.8

Intersection	
Intersection Delay, s/veh	25.2
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	150	5	145	2	2	2	25	280	1	2	465	90
Future Vol, veh/h	150	5	145	2	2	2	25	280	1	2	465	90
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	158	5	153	2	2	2	26	295	1	2	489	95
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	16.2	10.3	15.4	35.5
HCM LOS	C	B	C	E

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	50%	33%	0%
Vol Thru, %	92%	2%	33%	83%
Vol Right, %	0%	48%	33%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	306	300	6	557
LT Vol	25	150	2	2
Through Vol	280	5	2	465
RT Vol	1	145	2	90
Lane Flow Rate	322	316	6	586
Geometry Grp	1	1	1	1
Degree of Util (X)	0.527	0.537	0.013	0.881
Departure Headway (Hd)	5.891	6.123	7.253	5.411
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	609	584	496	668
Service Time	3.974	4.204	5.253	3.479
HCM Lane V/C Ratio	0.529	0.541	0.012	0.877
HCM Control Delay	15.4	16.2	10.3	35.5
HCM Lane LOS	C	C	B	E
HCM 95th-tile Q	3.1	3.2	0	10.6

Lane Group	NBL	NBT	NBR	SBL	SBT	SET	SER	NWL	NWT
Lane Group Flow (vph)	76	247	276	171	318	400	47	194	494
v/c Ratio	0.37	0.63	0.50	1.19	0.77	0.92	0.09	0.71	0.60
Control Delay	34.5	32.0	7.6	167.5	41.8	56.9	0.3	44.4	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.5	32.0	7.6	167.5	41.8	56.9	0.3	44.4	16.5
Queue Length 50th (ft)	31	96	7	~94	134	173	0	81	139
Queue Length 95th (ft)	64	154	53	#195	#250	#313	0	#154	217
Internal Link Dist (ft)		639			101	192			1578
Turn Bay Length (ft)			60	110			100	190	
Base Capacity (vph)	243	461	612	144	412	434	524	295	843
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.54	0.45	1.19	0.77	0.92	0.09	0.66	0.59

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	65	210	235	145	260	10	0	340	40	165	285	135
Future Volume (veh/h)	65	210	235	145	260	10	0	340	40	165	285	135
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	1737	1870	1870	1737	1737	0	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	76	247	0	171	306	12	0	400	47	194	335	159
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	11	2	2	11	11	0	8	2	2	8	8
Cap, veh/h	107	321		167	362	14	0	458	407	242	536	255
Arrive On Green	0.06	0.18	0.00	0.09	0.22	0.22	0.00	0.26	0.26	0.14	0.47	0.47
Sat Flow, veh/h	1781	1737	1585	1781	1660	65	0	1781	1585	1781	1142	542
Grp Volume(v), veh/h	76	247	0	171	0	318	0	400	47	194	0	494
Grp Sat Flow(s),veh/h/ln	1781	1737	1585	1781	0	1725	0	1781	1585	1781	0	1684
Q Serve(g_s), s	2.5	8.1	0.0	5.6	0.0	10.6	0.0	12.9	1.4	6.3	0.0	13.2
Cycle Q Clear(g_c), s	2.5	8.1	0.0	5.6	0.0	10.6	0.0	12.9	1.4	6.3	0.0	13.2
Prop In Lane	1.00		1.00	1.00		0.04	0.00		1.00	1.00		0.32
Lane Grp Cap(c), veh/h	107	321		167	0	377	0	458	407	242	0	791
V/C Ratio(X)	0.71	0.77		1.03	0.00	0.84	0.00	0.87	0.12	0.80	0.00	0.62
Avail Cap(c_a), veh/h	280	534		167	0	444	0	503	447	339	0	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.6	23.2	0.0	27.1	0.0	22.4	0.0	21.3	17.0	25.1	0.0	11.9
Incr Delay (d2), s/veh	8.5	3.9	0.0	77.0	0.0	12.3	0.0	14.7	0.1	9.0	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.4	0.0	5.8	0.0	5.2	0.0	6.5	0.5	3.1	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.1	27.1	0.0	104.1	0.0	34.7	0.0	36.0	17.2	34.1	0.0	12.9
LnGrp LOS	D	C		F	A	C	A	D	B	C	A	B
Approach Vol, veh/h		323	A		489			447			688	
Approach Delay, s/veh		29.2			59.0			34.0			18.9	
Approach LOS		C			E			C			B	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	10.2	16.5	12.7	20.5	8.2	18.5		33.2				
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	* 5.4		5.1				
Max Green Setting (Gmax), s	5.6	18.4	11.4	16.9	9.4	* 15		32.9				
Max Q Clear Time (g_c+I1), s	7.6	10.1	8.3	14.9	4.5	12.6		15.2				
Green Ext Time (p_c), s	0.0	0.8	0.1	0.5	0.1	0.5		3.0				

Intersection Summary			
HCM 6th Ctrl Delay			34.1
HCM 6th LOS			C

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	145.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	155	85	115	195	55	75	90	135	90	120	90
Future Vol, veh/h	45	155	85	115	195	55	75	90	135	90	120	90
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.96	0.69
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	65	225	123	167	283	80	109	130	196	130	125	130
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	111	229.2	125.9	91.5
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	16%	32%	30%
Vol Thru, %	30%	54%	53%	40%
Vol Right, %	45%	30%	15%	30%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	300	285	365	300
LT Vol	75	45	115	90
Through Vol	90	155	195	120
RT Vol	135	85	55	90
Lane Flow Rate	435	413	529	386
Geometry Grp	1	1	1	1
Degree of Util (X)	1.137	1.088	1.411	1.019
Departure Headway (Hd)	10.997	11.272	10.468	11.502
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	335	326	354	320
Service Time	8.997	9.272	8.468	9.502
HCM Lane V/C Ratio	1.299	1.267	1.494	1.206
HCM Control Delay	125.9	111	229.2	91.5
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	14.9	13.3	25	11.3

Lane Group	EBT	EBR	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	128	415	11	348	500	518
v/c Ratio	0.43	0.63	0.04	0.92	0.27	0.58
Control Delay	22.4	7.1	15.8	57.0	6.0	17.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.4	7.1	15.8	57.0	6.0	17.2
Queue Length 50th (ft)	32	0	2	99	31	60
Queue Length 95th (ft)	71	40	12	#254	56	96
Internal Link Dist (ft)	2546		191		2566	560
Turn Bay Length (ft)		100		160		
Base Capacity (vph)	447	788	467	378	2915	1993
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.53	0.02	0.92	0.17	0.26

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	0	340	7	1	1	285	410	0	0	350	75
Future Volume (veh/h)	105	0	340	7	1	1	285	410	0	0	350	75
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	1737	1737	1737	1737	1737
Adj Flow Rate, veh/h	128	0	415	9	1	1	348	500	0	0	427	91
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	11	11	11
Cap, veh/h	566	0	459	326	36	24	345	1723	0	0	650	138
Arrive On Green	0.29	0.00	0.29	0.29	0.29	0.29	0.19	0.52	0.00	0.00	0.24	0.24
Sat Flow, veh/h	1485	0	1585	699	126	82	1781	3387	0	0	2798	573
Grp Volume(v), veh/h	128	0	415	11	0	0	348	500	0	0	259	259
Grp Sat Flow(s),veh/h/ln	1485	0	1585	907	0	0	1781	1650	0	0	1650	1634
Q Serve(g_s), s	0.0	0.0	13.4	0.0	0.0	0.0	10.3	4.5	0.0	0.0	7.5	7.6
Cycle Q Clear(g_c), s	2.9	0.0	13.4	2.9	0.0	0.0	10.3	4.5	0.0	0.0	7.5	7.6
Prop In Lane	1.00		1.00	0.82		0.09	1.00		0.00	0.00		0.35
Lane Grp Cap(c), veh/h	566	0	459	386	0	0	345	1723	0	0	396	392
V/C Ratio(X)	0.23	0.00	0.90	0.03	0.00	0.00	1.01	0.29	0.00	0.00	0.65	0.66
Avail Cap(c_a), veh/h	566	0	459	386	0	0	345	1838	0	0	919	910
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	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	14.4	0.0	18.2	13.5	0.0	0.0	21.4	7.1	0.0	0.0	18.2	18.2
Incr Delay (d2), s/veh	0.2	0.0	21.1	0.0	0.0	0.0	50.4	0.1	0.0	0.0	1.8	1.9
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	6.9	0.1	0.0	0.0	8.7	1.2	0.0	0.0	2.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.6	0.0	39.2	13.6	0.0	0.0	71.8	7.2	0.0	0.0	20.0	20.2
LnGrp LOS	B	A	D	B	A	A	F	A	A	A	C	C
Approach Vol, veh/h		543			11			848			518	
Approach Delay, s/veh		33.4			13.6			33.7			20.1	
Approach LOS		C			B			C			C	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		33.1		20.0	15.0	18.1		20.0				
Change Period (Y+Rc), s		5.4		4.6	* 4.7	5.4		4.6				
Max Green Setting (Gmax), s		29.6		15.4	* 10	29.6		5.4				
Max Q Clear Time (g_c+I1), s		6.5		15.4	12.3	9.6		4.9				
Green Ext Time (p_c), s		3.5		0.0	0.0	3.1		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		29.9
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	SBL	SEL	SET	NWT	NWR
Lane Group Flow (vph)	268	101	756	536	42
v/c Ratio	0.60	0.35	0.71	0.75	0.06
Control Delay	16.9	27.1	11.8	23.8	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	16.9	27.1	11.8	23.8	5.0
Queue Length 50th (ft)	37	31	125	146	0
Queue Length 95th (ft)	90	72	255	#277	15
Internal Link Dist (ft)	2230		1578	1622	
Turn Bay Length (ft)		435			400
Base Capacity (vph)	636	366	1341	916	844
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.42	0.28	0.56	0.59	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (veh/h)	75	150	85	635	450	35
Future Volume (veh/h)	75	150	85	635	450	35
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1870	1781	1781	1870
Adj Flow Rate, veh/h	89	179	101	756	536	42
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	2	8	8	2
Cap, veh/h	110	221	192	1049	661	588
Arrive On Green	0.20	0.20	0.11	0.59	0.37	0.37
Sat Flow, veh/h	545	1095	1781	1781	1781	1585
Grp Volume(v), veh/h	269	0	101	756	536	42
Grp Sat Flow(s),veh/h/ln	1646	0	1781	1781	1781	1585
Q Serve(g_s), s	7.2	0.0	2.5	14.1	12.6	0.8
Cycle Q Clear(g_c), s	7.2	0.0	2.5	14.1	12.6	0.8
Prop In Lane	0.33	0.67	1.00			1.00
Lane Grp Cap(c), veh/h	333	0	192	1049	661	588
V/C Ratio(X)	0.81	0.00	0.53	0.72	0.81	0.07
Avail Cap(c_a), veh/h	546	0	380	1049	956	850
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	17.7	0.0	19.6	6.8	13.1	9.4
Incr Delay (d2), s/veh	4.7	0.0	2.2	2.4	3.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	1.0	3.9	4.6	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.3	0.0	21.8	9.3	16.6	9.5
LnGrp LOS	C	A	C	A	B	A
Approach Vol, veh/h	269			857	578	
Approach Delay, s/veh	22.3			10.7	16.1	
Approach LOS	C			B	B	

Timer - Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	10.1	22.3				32.4		14.0
Change Period (Y+Rc), s	5.1	5.1				5.1		4.6
Max Green Setting (Gmax), s	9.9	24.9				24.9		15.4
Max Q Clear Time (g_c+I1), s	4.5	14.6				16.1		9.2
Green Ext Time (p_c), s	0.1	2.7				3.5		0.5

Intersection Summary	
HCM 6th Ctrl Delay	14.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Intersection						
Int Delay, s/veh	2.9					

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	60	30	20	635	450	55
Future Vol, veh/h	60	30	20	635	450	55
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	8	8	2
Mvmt Flow	70	35	23	738	523	64

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1339	555	587	0	-	0
Stage 1	555	-	-	-	-	-
Stage 2	784	-	-	-	-	-
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	168	531	988	-	-	-
Stage 1	575	-	-	-	-	-
Stage 2	450	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	161	531	988	-	-	-
Mov Cap-2 Maneuver	161	-	-	-	-	-
Stage 1	553	-	-	-	-	-
Stage 2	450	-	-	-	-	-

Approach	SB	SE	NW
HCM Control Delay, s	38.1	0.3	0
HCM LOS	E		

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SBLn1
Capacity (veh/h)	-	-	988	-	210
HCM Lane V/C Ratio	-	-	0.024	-	0.498
HCM Control Delay (s)	-	-	8.7	0	38.1
HCM Lane LOS	-	-	A	A	E
HCM 95th %tile Q(veh)	-	-	0.1	-	2.5

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	210	160	99	747	37	778
v/c Ratio	0.63	0.55	0.44	0.58	0.22	0.71
Control Delay	32.0	38.0	46.2	23.7	45.4	29.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.0	38.0	46.2	23.7	45.4	29.8
Queue Length 50th (ft)	63	64	49	164	19	185
Queue Length 95th (ft)	135	133	110	257	53	282
Internal Link Dist (ft)	615	635		1224		2566
Turn Bay Length (ft)			135		135	
Base Capacity (vph)	683	506	316	1654	319	1642
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.32	0.31	0.45	0.12	0.47

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	35	115	40	30	60	80	565	40	30	600	30
Future Volume (veh/h)	20	35	115	40	30	60	80	565	40	30	600	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	1737	1737	1870	1737	1737
Adj Flow Rate, veh/h	25	43	142	49	37	74	99	698	49	37	741	37
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	2	11	11
Cap, veh/h	33	56	186	65	49	98	129	1104	77	67	1017	51
Arrive On Green	0.17	0.17	0.17	0.12	0.12	0.12	0.07	0.35	0.35	0.04	0.32	0.32
Sat Flow, veh/h	197	340	1122	521	394	787	1781	3128	219	1781	3199	160
Grp Volume(v), veh/h	210	0	0	160	0	0	99	368	379	37	382	396
Grp Sat Flow(s),veh/h/ln	1659	0	0	1703	0	0	1781	1650	1697	1781	1650	1708
Q Serve(g_s), s	7.7	0.0	0.0	5.8	0.0	0.0	3.5	11.8	11.9	1.3	13.1	13.1
Cycle Q Clear(g_c), s	7.7	0.0	0.0	5.8	0.0	0.0	3.5	11.8	11.9	1.3	13.1	13.1
Prop In Lane	0.12		0.68	0.31		0.46	1.00		0.13	1.00		0.09
Lane Grp Cap(c), veh/h	275	0	0	213	0	0	129	582	599	67	525	543
V/C Ratio(X)	0.76	0.00	0.00	0.75	0.00	0.00	0.77	0.63	0.63	0.55	0.73	0.73
Avail Cap(c_a), veh/h	726	0	0	558	0	0	372	971	998	374	973	1007
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.4	0.0	0.0	26.9	0.0	0.0	29.0	17.2	17.2	30.1	19.3	19.3
Incr Delay (d2), s/veh	4.4	0.0	0.0	5.3	0.0	0.0	9.0	1.1	1.1	6.9	2.0	1.9
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	3.2	0.0	0.0	2.5	0.0	0.0	1.7	4.2	4.4	0.7	4.8	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.7	0.0	0.0	32.3	0.0	0.0	38.1	18.3	18.3	37.0	21.2	21.2
LnGrp LOS	C	A	A	C	A	A	D	B	B	D	C	C
Approach Vol, veh/h		210			160			846			815	
Approach Delay, s/veh		29.7			32.3			20.6			21.9	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.1	27.9		15.7	9.3	25.7		13.1
Change Period (Y+Rc), s	* 4.7	5.4		5.1	* 4.7	5.4		5.1
Max Green Setting (Gmax), s	* 13	37.5		27.9	* 13	37.6		20.9
Max Q Clear Time (g_c+I1), s	3.3	13.9		9.7	5.5	15.1		7.8
Green Ext Time (p_c), s	0.0	5.0		1.1	0.1	5.2		0.7

Intersection Summary	
HCM 6th Ctrl Delay	23.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	NBT	SBT	SEL	SET	NWL	NWT
Lane Group Flow (vph)	705	606	11	711	126	384
v/c Ratio	1.52	2.27	0.12	1.46	0.85	0.56
Control Delay	273.2	606.2	48.7	247.4	89.5	27.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	273.2	606.2	48.7	247.4	89.5	27.3
Queue Length 50th (ft)	~623	~639	7	~622	81	172
Queue Length 95th (ft)	#847	#854	25	#847	#185	314
Internal Link Dist (ft)	479	5386		3214		2844
Turn Bay Length (ft)			220		220	
Base Capacity (vph)	464	267	88	487	148	687
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.52	2.27	0.13	1.46	0.85	0.56

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	190	235	245	265	295	15	10	510	165	120	280	85
Future Volume (veh/h)	190	235	245	265	295	15	10	510	165	120	280	85
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	1781	1781	1870	1781	1781
Adj Flow Rate, veh/h	200	247	258	279	311	16	11	537	174	126	295	89
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	8	8	2	8	8
Cap, veh/h	125	154	161	123	137	7	23	357	116	150	457	138
Arrive On Green	0.25	0.25	0.25	0.15	0.15	0.15	0.01	0.28	0.28	0.08	0.35	0.35
Sat Flow, veh/h	491	607	634	838	934	48	1781	1289	418	1781	1314	396
Grp Volume(v), veh/h	705	0	0	606	0	0	11	0	711	126	0	384
Grp Sat Flow(s),veh/h/ln	1732	0	0	1820	0	0	1781	0	1706	1781	0	1710
Q Serve(g_s), s	25.4	0.0	0.0	14.7	0.0	0.0	0.6	0.0	27.7	7.0	0.0	18.9
Cycle Q Clear(g_c), s	25.4	0.0	0.0	14.7	0.0	0.0	0.6	0.0	27.7	7.0	0.0	18.9
Prop In Lane	0.28		0.37	0.46		0.03	1.00		0.24	1.00		0.23
Lane Grp Cap(c), veh/h	440	0	0	268	0	0	23	0	473	150	0	595
V/C Ratio(X)	1.60	0.00	0.00	2.27	0.00	0.00	0.47	0.00	1.50	0.84	0.00	0.65
Avail Cap(c_a), veh/h	440	0	0	268	0	0	89	0	473	150	0	595
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.3	0.0	0.0	42.7	0.0	0.0	49.0	0.0	36.2	45.1	0.0	27.4
Incr Delay (d2), s/veh	281.7	0.0	0.0	581.2	0.0	0.0	13.9	0.0	237.8	33.0	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	44.7	0.0	0.0	49.4	0.0	0.0	0.3	0.0	41.7	4.3	0.0	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	319.0	0.0	0.0	623.8	0.0	0.0	62.8	0.0	273.9	78.1	0.0	29.8
LnGrp LOS	F	A	A	F	A	A	E	A	F	E	A	C
Approach Vol, veh/h		705			606			722			510	
Approach Delay, s/veh		319.0			623.8			270.7			41.8	
Approach LOS		F			F			F			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.8	13.8	34.2		21.2	6.7	41.3				
Change Period (Y+Rc), s		5.4	5.4	6.5		6.5	5.4	6.5				
Max Green Setting (Gmax), s		25.4	8.4	27.7		14.7	5.0	31.1				
Max Q Clear Time (g_c+I1), s		27.4	9.0	29.7		16.7	2.6	20.9				
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	1.4				
Intersection Summary												
HCM 6th Ctrl Delay			322.3									
HCM 6th LOS			F									

Intersection	
Int Delay, s/veh	3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	100	75	590	95	35	720
Future Vol, veh/h	100	75	590	95	35	720
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	-	-	-	10	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	11	2	2	11
Mvmt Flow	120	90	711	114	42	867

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1286	413	0	0	825	0
Stage 1	768	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	156	588	-	-	801	-
Stage 1	418	-	-	-	-	-
Stage 2	563	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	148	588	-	-	801	-
Mov Cap-2 Maneuver	280	-	-	-	-	-
Stage 1	418	-	-	-	-	-
Stage 2	534	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.1	0	0.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	361	801	-
HCM Lane V/C Ratio	-	-	0.584	0.053	-
HCM Control Delay (s)	-	-	28.1	9.7	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	3.5	0.2	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	342	487	506	519	544	481
v/c Ratio	0.80	0.31	0.86	0.25	0.65	0.63
Control Delay	50.5	0.5	46.8	7.5	36.2	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.5	0.5	46.8	7.5	36.2	7.0
Queue Length 50th (ft)	208	0	295	66	167	0
Queue Length 95th (ft)	282	0	395	81	195	32
Internal Link Dist (ft)	1555			480	2580	
Turn Bay Length (ft)			340			280
Base Capacity (vph)	537	1583	706	2537	1142	868
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.31	0.72	0.20	0.48	0.55

Intersection Summary

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	270	385	400	410	430	380
Future Volume (veh/h)	270	385	400	410	430	380
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1737	1737	1870
Adj Flow Rate, veh/h	342	0	506	519	544	354
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	11	11	2
Cap, veh/h	391		558	2165	923	443
Arrive On Green	0.22	0.00	0.31	0.66	0.28	0.28
Sat Flow, veh/h	1781	1585	1781	3387	3387	1585
Grp Volume(v), veh/h	342	0	506	519	544	354
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1650	1650	1585
Q Serve(g_s), s	15.0	0.0	22.1	5.2	11.5	16.8
Cycle Q Clear(g_c), s	15.0	0.0	22.1	5.2	11.5	16.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	391		558	2165	923	443
V/C Ratio(X)	0.87		0.91	0.24	0.59	0.80
Avail Cap(c_a), veh/h	599		788	2952	1285	617
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	30.6	0.0	26.7	5.7	25.2	27.1
Incr Delay (d2), s/veh	9.0	0.0	10.9	0.1	0.6	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	0.0	10.3	1.4	4.3	6.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.6	0.0	37.6	5.8	25.8	32.1
LnGrp LOS	D		D	A	C	C
Approach Vol, veh/h	342	A		1025	898	
Approach Delay, s/veh	39.6			21.5	28.3	
Approach LOS	D			C	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		58.6		22.5	30.5	28.1
Change Period (Y+Rc), s		5.4		* 4.7	5.1	5.4
Max Green Setting (Gmax), s		72.6		* 27	35.9	31.6
Max Q Clear Time (g_c+I1), s		7.2		17.0	24.1	18.8
Green Ext Time (p_c), s		3.7		0.8	1.3	3.9

Intersection Summary		
HCM 6th Ctrl Delay		26.9
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	121	706	132	716	147	353	105	363	406
v/c Ratio	0.58	1.03	0.79	0.87	0.68	0.65	0.22	0.80	0.41
Control Delay	42.6	70.7	66.5	36.7	48.5	34.2	1.1	39.1	19.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.6	70.7	66.5	36.7	48.5	34.2	1.1	39.1	19.6
Queue Length 50th (ft)	53	~179	61	~148	66	79	0	151	68
Queue Length 95th (ft)	#108	#292	#156	#261	#148	123	0	#267	105
Internal Link Dist (ft)		1219		1008		1659			690
Turn Bay Length (ft)	400		215		225		225	250	
Base Capacity (vph)	228	688	168	823	228	609	501	535	1177
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	1.03	0.79	0.87	0.64	0.58	0.21	0.68	0.34

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	485	185	125	380	300	140	335	100	345	335	50
Future Volume (veh/h)	115	485	185	125	380	300	140	335	100	345	335	50
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	1737	1870	1870	1737	1737
Adj Flow Rate, veh/h	121	511	195	132	400	316	147	353	105	363	353	53
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	11	2	2	11	11
Cap, veh/h	155	513	195	167	387	303	186	491	236	420	807	120
Arrive On Green	0.09	0.20	0.20	0.09	0.20	0.20	0.10	0.15	0.15	0.24	0.28	0.28
Sat Flow, veh/h	1781	2519	956	1781	1896	1484	1781	3300	1585	1781	2881	429
Grp Volume(v), veh/h	121	360	346	132	375	341	147	353	105	363	201	205
Grp Sat Flow(s),veh/h/ln	1781	1777	1698	1781	1777	1603	1781	1650	1585	1781	1650	1660
Q Serve(g_s), s	4.3	13.1	13.2	4.7	13.2	13.2	5.2	6.6	3.9	12.7	6.5	6.6
Cycle Q Clear(g_c), s	4.3	13.1	13.2	4.7	13.2	13.2	5.2	6.6	3.9	12.7	6.5	6.6
Prop In Lane	1.00		0.56	1.00		0.93	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	155	362	346	167	363	327	186	491	236	420	462	465
V/C Ratio(X)	0.78	0.99	1.00	0.79	1.03	1.04	0.79	0.72	0.45	0.86	0.43	0.44
Avail Cap(c_a), veh/h	250	362	346	184	363	327	250	672	323	585	647	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	25.8	25.8	28.7	25.8	25.8	28.3	26.3	25.1	23.8	19.1	19.2
Incr Delay (d2), s/veh	8.1	45.6	48.6	18.8	56.1	61.6	11.5	2.3	1.3	9.5	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	9.5	9.4	2.7	10.6	10.1	2.6	2.5	1.4	5.9	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.1	71.4	74.4	47.5	81.9	87.4	39.8	28.6	26.5	33.3	19.8	19.8
LnGrp LOS	D	E	F	D	F	F	D	C	C	C	B	B
Approach Vol, veh/h		827			848			605			769	
Approach Delay, s/veh		67.7			78.8			31.0			26.2	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.4	15.0	10.8	18.6	11.9	23.6	10.8	18.6
Change Period (Y+Rc), s	5.1	5.4	* 4.7	5.4	5.1	5.4	5.1	5.4
Max Green Setting (Gmax), s	21.3	13.2	* 6.7	13.2	9.1	25.4	9.1	10.4
Max Q Clear Time (g_c+I1), s	14.7	8.6	6.7	15.2	7.2	8.6	6.3	15.2
Green Ext Time (p_c), s	0.6	1.0	0.0	0.0	0.1	2.0	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	53.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	122	44	111	117	11	539	78	584
v/c Ratio	0.31	0.09	0.29	0.23	0.04	0.39	0.23	0.36
Control Delay	25.1	0.3	24.9	1.5	25.4	15.8	26.1	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.1	0.3	24.9	1.5	25.4	15.8	26.1	12.6
Queue Length 50th (ft)	39	0	35	0	4	80	25	64
Queue Length 95th (ft)	86	0	80	5	17	123	63	135
Internal Link Dist (ft)	816		797			1484		1659
Turn Bay Length (ft)		150			75		250	
Base Capacity (vph)	489	583	480	577	289	1539	357	1756
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.08	0.23	0.20	0.04	0.35	0.22	0.33

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	55	40	65	35	105	10	420	65	70	500	25
Future Volume (veh/h)	55	55	40	65	35	105	10	420	65	70	500	25
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	1737	1737	1870	1737	1737
Adj Flow Rate, veh/h	61	61	44	72	39	117	11	467	72	78	556	28
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	2	11	11
Cap, veh/h	93	93	162	137	74	184	26	712	109	127	975	49
Arrive On Green	0.10	0.10	0.10	0.12	0.12	0.12	0.01	0.25	0.25	0.07	0.30	0.30
Sat Flow, veh/h	912	912	1585	1175	637	1585	1781	2868	440	1781	3197	161
Grp Volume(v), veh/h	122	0	44	111	0	117	11	268	271	78	287	297
Grp Sat Flow(s),veh/h/ln	1825	0	1585	1812	0	1585	1781	1650	1658	1781	1650	1708
Q Serve(g_s), s	2.7	0.0	1.1	2.4	0.0	3.0	0.3	6.1	6.2	1.8	6.1	6.1
Cycle Q Clear(g_c), s	2.7	0.0	1.1	2.4	0.0	3.0	0.3	6.1	6.2	1.8	6.1	6.1
Prop In Lane	0.50		1.00	0.65		1.00	1.00		0.27	1.00		0.09
Lane Grp Cap(c), veh/h	186	0	162	211	0	184	26	409	411	127	503	521
V/C Ratio(X)	0.66	0.00	0.27	0.53	0.00	0.63	0.43	0.65	0.66	0.62	0.57	0.57
Avail Cap(c_a), veh/h	365	0	317	358	0	314	217	704	707	268	740	766
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.1	0.0	17.4	17.4	0.0	17.7	20.5	14.2	14.2	18.9	12.3	12.3
Incr Delay (d2), s/veh	3.9	0.0	0.9	2.0	0.0	3.6	11.0	1.8	1.8	4.8	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.4	1.0	0.0	1.1	0.2	2.0	2.0	0.8	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.0	0.0	18.3	19.5	0.0	21.3	31.5	15.9	16.0	23.7	13.3	13.3
LnGrp LOS	C	A	B	B	A	C	C	B	B	C	B	B
Approach Vol, veh/h		166			228			550			662	
Approach Delay, s/veh		21.0			20.4			16.3			14.5	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	15.8		8.9	5.3	18.2		9.6				
Change Period (Y+Rc), s	* 4.7	* 5.4		4.6	* 4.7	5.4		4.7				
Max Green Setting (Gmax), s	* 6.3	* 18		8.4	* 5.1	18.8		8.3				
Max Q Clear Time (g_c+I1), s	3.8	8.2		4.7	2.3	8.1		5.0				
Green Ext Time (p_c), s	0.0	2.2		0.2	0.0	2.5		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			16.6									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	23.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	125	0	275	3	1	0	260	250	5	0	455	40
Future Vol, veh/h	125	0	275	3	1	0	260	250	5	0	455	40
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2	2	11	2	2	11	2
Mvmt Flow	140	0	309	3	1	0	292	281	6	0	511	45
Number of Lanes	1	1	0	0	1	0	1	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	3	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	1	2
HCM Control Delay	21.6	13.4	21.8	27.8
HCM LOS	C	B	C	D

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	75%	0%	0%
Vol Thru, %	0%	100%	94%	0%	0%	25%	100%	79%
Vol Right, %	0%	0%	6%	0%	100%	0%	0%	21%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	260	167	88	125	275	4	303	192
LT Vol	260	0	0	125	0	3	0	0
Through Vol	0	167	83	0	0	1	303	152
RT Vol	0	0	5	0	275	0	0	40
Lane Flow Rate	292	187	99	140	309	4	341	215
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.688	0.423	0.218	0.346	0.657	0.013	0.776	0.472
Departure Headway (Hd)	8.479	8.123	7.925	8.877	7.652	10.558	8.2	7.892
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	427	442	452	404	470	341	440	454
Service Time	6.244	5.888	5.69	6.645	5.42	8.258	5.97	5.662
HCM Lane V/C Ratio	0.684	0.423	0.219	0.347	0.657	0.012	0.775	0.474
HCM Control Delay	28.1	16.8	12.9	16.3	24	13.4	34.2	17.6
HCM Lane LOS	D	C	B	C	C	B	D	C
HCM 95th-tile Q	5.1	2.1	0.8	1.5	4.7	0	6.7	2.5

Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	47	221	23	180	413	477	203	523	81
v/c Ratio	0.31	0.57	0.06	0.72	0.48	0.81	0.46	1.22	0.15
Control Delay	31.6	31.8	0.3	43.5	17.0	34.9	23.1	144.9	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.6	31.8	0.3	43.5	17.0	34.9	23.1	144.9	0.6
Queue Length 50th (ft)	16	41	0	63	50	79	62	~242	0
Queue Length 95th (ft)	42	67	0	#135	84	#137	111	#379	0
Internal Link Dist (ft)		1872			1484	348		628	
Turn Bay Length (ft)	250		80	130			225		
Base Capacity (vph)	151	385	358	258	860	593	442	428	556
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.57	0.06	0.70	0.48	0.80	0.46	1.22	0.15

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	190	20	155	235	120	10	315	85	175	450	70
Future Volume (veh/h)	40	190	20	155	235	120	10	315	85	175	450	70
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	1737	1737	1737	1870	1737	1870
Adj Flow Rate, veh/h	47	221	0	180	273	140	12	366	0	203	523	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	11	11	11	2	11	2
Cap, veh/h	82	348		226	409	204	16	508		473	461	
Arrive On Green	0.05	0.10	0.00	0.13	0.18	0.18	0.16	0.16	0.00	0.27	0.27	0.00
Sat Flow, veh/h	1781	3554	1585	1781	2297	1145	103	3366	0	1781	1737	1585
Grp Volume(v), veh/h	47	221	0	180	209	204	203	175	0	203	523	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1664	1732	1650	0	1781	1737	1585
Q Serve(g_s), s	1.4	3.4	0.0	5.5	6.2	6.4	6.3	5.6	0.0	5.3	14.9	0.0
Cycle Q Clear(g_c), s	1.4	3.4	0.0	5.5	6.2	6.4	6.3	5.6	0.0	5.3	14.9	0.0
Prop In Lane	1.00		1.00	1.00		0.69	0.06		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	82	348		226	317	297	269	256		473	461	
V/C Ratio(X)	0.57	0.64		0.80	0.66	0.69	0.75	0.69		0.43	1.13	
Avail Cap(c_a), veh/h	162	412		276	317	297	318	303		473	461	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.2	24.3	0.0	23.8	21.5	21.6	22.7	22.4	0.0	17.1	20.6	0.0
Incr Delay (d2), s/veh	6.1	2.4	0.0	12.6	5.0	6.4	8.3	5.0	0.0	0.6	83.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.4	0.0	2.8	2.7	2.7	3.0	2.4	0.0	2.0	16.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.3	26.8	0.0	36.3	26.5	28.0	30.9	27.4	0.0	17.7	104.4	0.0
LnGrp LOS	C	C		D	C	C	C	C		B	F	
Approach Vol, veh/h		268	A		593			378	A		726	A
Approach Delay, s/veh		27.7			30.0			29.3			80.2	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	2	3	4		6	7	8
Phs Duration (G+Y+Rc), s	13.4	11.8	10.9		20.0	7.3	15.4
Change Period (Y+Rc), s	* 4.7	* 4.7	* 5.4		5.1	* 4.7	5.4
Max Green Setting (Gmax), s	* 10	* 8.7	* 6.5		14.9	* 5.1	9.8
Max Q Clear Time (g_c+I1), s	8.3	7.5	5.4		16.9	3.4	8.4
Green Ext Time (p_c), s	0.4	0.1	0.1		0.0	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	48.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	200	226	4	558	484	211
v/c Ratio	1.12	0.57	0.01	0.68	0.74	0.31
Control Delay	134.1	11.2	0.0	22.8	22.4	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	134.1	11.2	0.0	22.8	22.4	3.5
Queue Length 50th (ft)	~82	1	0	84	126	0
Queue Length 95th (ft)	#190	#56	0	132	215	33
Internal Link Dist (ft)		804	608	1106	348	
Turn Bay Length (ft)	100					275
Base Capacity (vph)	179	395	271	925	800	801
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.12	0.57	0.01	0.60	0.60	0.26

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	5	210	2	0	2	280	245	5	5	455	200
Future Volume (veh/h)	190	5	210	2	0	2	280	245	5	5	455	200
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	200	5	221	2	0	2	295	258	5	5	479	211
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	338	5	213	117	33	33	402	412	8	6	614	526
Arrive On Green	0.14	0.14	0.14	0.14	0.00	0.14	0.23	0.23	0.23	0.33	0.33	0.33
Sat Flow, veh/h	1415	35	1555	0	242	242	1781	1829	35	19	1850	1585
Grp Volume(v), veh/h	200	0	226	4	0	0	295	0	263	484	0	211
Grp Sat Flow(s),veh/h/ln	1415	0	1590	483	0	0	1781	0	1864	1869	0	1585
Q Serve(g_s), s	0.0	0.0	6.3	0.0	0.0	0.0	7.1	0.0	5.9	10.8	0.0	4.7
Cycle Q Clear(g_c), s	6.3	0.0	6.3	6.3	0.0	0.0	7.1	0.0	5.9	10.8	0.0	4.7
Prop In Lane	1.00		0.98	0.50		0.50	1.00		0.02	0.01		1.00
Lane Grp Cap(c), veh/h	338	0	217	183	0	0	402	0	420	620	0	526
V/C Ratio(X)	0.59	0.00	1.04	0.02	0.00	0.00	0.73	0.00	0.63	0.78	0.00	0.40
Avail Cap(c_a), veh/h	338	0	217	183	0	0	514	0	538	864	0	732
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	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.2	0.0	19.9	17.4	0.0	0.0	16.6	0.0	16.1	13.9	0.0	11.9
Incr Delay (d2), s/veh	2.7	0.0	71.8	0.0	0.0	0.0	4.0	0.0	1.5	3.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	6.4	0.0	0.0	0.0	2.9	0.0	2.3	4.2	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.9	0.0	91.7	17.5	0.0	0.0	20.5	0.0	17.6	17.0	0.0	12.4
LnGrp LOS	C	A	F	B	A	A	C	A	B	B	A	B
Approach Vol, veh/h		426			4			558			695	
Approach Delay, s/veh		59.4			17.5			19.2			15.6	
Approach LOS		E			B			B			B	

Timer - Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		15.1		11.0		20.0		11.0
Change Period (Y+Rc), s		* 4.7		* 4.7		4.7		* 4.7
Max Green Setting (Gmax), s		* 13		* 6.3		21.3		* 6.3
Max Q Clear Time (g_c+I1), s		9.1		8.3		12.8		8.3
Green Ext Time (p_c), s		1.3		0.0		2.5		0.0

Intersection Summary	
HCM 6th Ctrl Delay	27.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	168	252	16	58	58	163	374	74	284	111
v/c Ratio	0.56	0.23	0.09	0.23	0.14	0.61	0.28	0.19	0.61	0.19
Control Delay	33.3	7.3	29.2	27.4	0.7	39.2	15.4	27.8	26.0	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.3	7.3	29.2	27.4	0.7	39.2	15.4	27.8	26.0	0.7
Queue Length 50th (ft)	55	9	5	19	0	56	55	12	91	0
Queue Length 95th (ft)	#140	42	24	52	0	#157	91	32	166	0
Internal Link Dist (ft)		676		1147			740		1106	
Turn Bay Length (ft)	210		80			190		195		100
Base Capacity (vph)	342	1301	176	416	544	276	1507	406	711	760
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.19	0.09	0.14	0.11	0.59	0.25	0.18	0.40	0.15

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	80	160	15	55	55	155	335	20	70	270	105
Future Volume (veh/h)	160	80	160	15	55	55	155	335	20	70	270	105
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	168	84	168	16	58	58	163	353	21	74	284	111
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	218	378	338	36	207	176	210	922	55	232	412	349
Arrive On Green	0.12	0.21	0.21	0.02	0.11	0.11	0.12	0.27	0.27	0.07	0.22	0.22
Sat Flow, veh/h	1781	1777	1585	1781	1870	1585	1781	3409	202	3456	1870	1585
Grp Volume(v), veh/h	168	84	168	16	58	58	163	183	191	74	284	111
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1870	1585	1781	1777	1834	1728	1870	1585
Q Serve(g_s), s	4.1	1.7	4.2	0.4	1.3	1.5	4.0	3.8	3.8	0.9	6.2	2.6
Cycle Q Clear(g_c), s	4.1	1.7	4.2	0.4	1.3	1.5	4.0	3.8	3.8	0.9	6.2	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	218	378	338	36	207	176	210	481	496	232	412	349
V/C Ratio(X)	0.77	0.22	0.50	0.45	0.28	0.33	0.78	0.38	0.38	0.32	0.69	0.32
Avail Cap(c_a), veh/h	410	687	613	211	497	422	330	885	914	487	848	719
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	14.5	15.5	21.7	18.3	18.4	19.2	13.3	13.3	19.9	16.0	14.6
Incr Delay (d2), s/veh	5.7	0.3	1.1	8.4	0.7	1.1	6.1	0.5	0.5	0.8	2.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.6	1.4	0.2	0.5	0.5	1.8	1.3	1.4	0.4	2.5	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.7	14.8	16.6	30.1	19.0	19.5	25.3	13.8	13.8	20.7	18.1	15.2
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		420			132			537			469	
Approach Delay, s/veh		19.5			20.5			17.3			17.8	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	16.8	5.6	14.6	10.0	14.5	10.2	10.1
Change Period (Y+Rc), s	* 4.7	* 4.7	* 4.7	* 5.1	* 4.7	* 4.7	* 4.7	5.1
Max Green Setting (Gmax), s	* 6.3	* 22	* 5.3	* 17	* 8.3	* 20	* 10	11.9
Max Q Clear Time (g_c+I1), s	2.9	5.8	2.4	6.2	6.0	8.2	6.1	3.5
Green Ext Time (p_c), s	0.0	1.9	0.0	1.1	0.1	1.6	0.2	0.2

Intersection Summary	
HCM 6th Ctrl Delay	18.3
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	NBT	SBL	SBT	SBR	SEL	SET	NWL	NWT
Lane Group Flow (vph)	716	16	153	95	363	658	5	274
v/c Ratio	0.77	0.10	0.48	0.25	0.92	0.48	0.04	0.60
Control Delay	31.8	34.6	39.2	1.5	61.1	18.2	35.8	33.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.8	34.6	39.2	1.5	61.1	18.2	35.8	33.3
Queue Length 50th (ft)	165	7	37	0	176	105	2	56
Queue Length 95th (ft)	226	26	68	0	#348	195	13	97
Internal Link Dist (ft)	790		516			3919		2409
Turn Bay Length (ft)		150		65	165		405	
Base Capacity (vph)	1083	173	328	389	396	1376	122	498
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.09	0.47	0.24	0.92	0.48	0.04	0.55

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	165	500	15	15	145	90	345	460	165	5	200	60
Future Volume (veh/h)	165	500	15	15	145	90	345	460	165	5	200	60
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	1781	1870	1870	1870	1870	1870	1781	1781
Adj Flow Rate, veh/h	174	526	16	16	153	95	363	484	174	5	211	63
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	8	2	2	2	2	2	8	8
Cap, veh/h	219	704	22	158	301	141	407	864	309	12	297	87
Arrive On Green	0.26	0.26	0.26	0.09	0.09	0.09	0.23	0.34	0.34	0.01	0.11	0.11
Sat Flow, veh/h	854	2742	86	1781	3385	1585	1781	2566	916	1781	2586	752
Grp Volume(v), veh/h	372	0	344	16	153	95	363	334	324	5	136	138
Grp Sat Flow(s),veh/h/ln	1828	0	1855	1781	1692	1585	1781	1777	1705	1781	1692	1646
Q Serve(g_s), s	13.2	0.0	11.7	0.6	3.0	4.0	13.7	10.7	10.8	0.2	5.4	5.6
Cycle Q Clear(g_c), s	13.2	0.0	11.7	0.6	3.0	4.0	13.7	10.7	10.8	0.2	5.4	5.6
Prop In Lane	0.47		0.05	1.00		1.00	1.00		0.54	1.00		0.46
Lane Grp Cap(c), veh/h	469	0	476	158	301	141	407	598	574	12	195	189
V/C Ratio(X)	0.79	0.00	0.72	0.10	0.51	0.67	0.89	0.56	0.56	0.42	0.70	0.73
Avail Cap(c_a), veh/h	616	0	625	190	361	169	433	598	574	133	261	254
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	24.1	0.0	23.5	29.1	30.2	30.7	26.0	18.8	18.9	34.4	29.6	29.7
Incr Delay (d2), s/veh	5.3	0.0	2.8	0.3	1.3	7.9	19.5	1.2	1.3	22.3	5.2	6.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	0.0	5.0	0.3	1.2	1.7	7.2	3.8	3.7	0.1	2.2	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.4	0.0	26.4	29.4	31.5	38.5	45.5	20.0	20.1	56.7	34.8	36.5
LnGrp LOS	C	A	C	C	C	D	D	B	C	E	C	D
Approach Vol, veh/h		716			264			1021			279	
Approach Delay, s/veh		27.9			33.9			29.1			36.0	
Approach LOS		C			C			C			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.2	5.6	29.9		10.8	21.0	14.5				
Change Period (Y+Rc), s		5.4	5.1	6.5		4.6	5.1	6.5				
Max Green Setting (Gmax), s		23.4	5.2	22.4		7.4	16.9	10.7				
Max Q Clear Time (g_c+I1), s		15.2	2.2	12.8		6.0	15.7	7.6				
Green Ext Time (p_c), s		2.6	0.0	2.5		0.2	0.1	0.4				

Intersection Summary			
HCM 6th Ctrl Delay			30.1
HCM 6th LOS			C

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	2.1

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	2	270	50	30	210	5	30	0	60	1	0	0
Future Vol, veh/h	2	270	50	30	210	5	30	0	60	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	2	293	54	33	228	5	33	0	65	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	233	0	0	347	0	0	621	623	320	654	648	231
Stage 1	-	-	-	-	-	-	324	324	-	297	297	-
Stage 2	-	-	-	-	-	-	297	299	-	357	351	-
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	1335	-	-	1212	-	-	400	402	721	380	389	808
Stage 1	-	-	-	-	-	-	688	650	-	712	668	-
Stage 2	-	-	-	-	-	-	712	666	-	661	632	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1335	-	-	1212	-	-	390	389	721	337	376	808
Mov Cap-2 Maneuver	-	-	-	-	-	-	390	389	-	337	376	-
Stage 1	-	-	-	-	-	-	687	649	-	711	647	-
Stage 2	-	-	-	-	-	-	690	645	-	600	631	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0	1	12.8	15.7
HCM LOS			B	C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	562	1212	-	-	1335	-	-	337
HCM Lane V/C Ratio	0.174	0.027	-	-	0.002	-	-	0.003
HCM Control Delay (s)	12.8	8.1	0	-	7.7	0	-	15.7
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	5	20	65	310	230	5
Future Vol, veh/h	5	20	65	310	230	5
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	-	-	-	-	-
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	8	8	2
Mvmt Flow	5	22	71	337	250	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	732	253	255	0	-	0
Stage 1	253	-	-	-	-	-
Stage 2	479	-	-	-	-	-
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	388	786	1310	-	-	-
Stage 1	789	-	-	-	-	-
Stage 2	623	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	362	786	1310	-	-	-
Mov Cap-2 Maneuver	362	-	-	-	-	-
Stage 1	736	-	-	-	-	-
Stage 2	623	-	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s	10.9	1.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWR	WBLn1	SEL	SET
Capacity (veh/h)	-	-	637	1310	-
HCM Lane V/C Ratio	-	-	0.043	0.054	-
HCM Control Delay (s)	-	-	10.9	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.2	-

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	2	35	40	45	15	5	20	75	30	5	95	1
Future Vol, veh/h	2	35	40	45	15	5	20	75	30	5	95	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	39	45	51	17	6	22	84	34	6	107	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.8	8.2	8.2	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	3%	69%	5%
Vol Thru, %	60%	45%	23%	94%
Vol Right, %	24%	52%	8%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	125	77	65	101
LT Vol	20	2	45	5
Through Vol	75	35	15	95
RT Vol	30	40	5	1
Lane Flow Rate	140	87	73	113
Geometry Grp	1	1	1	1
Degree of Util (X)	0.168	0.103	0.095	0.14
Departure Headway (Hd)	4.315	4.287	4.695	4.457
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	833	837	765	806
Service Time	2.333	2.307	2.716	2.475
HCM Lane V/C Ratio	0.168	0.104	0.095	0.14
HCM Control Delay	8.2	7.8	8.2	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.3	0.3	0.5

Intersection	
Intersection Delay, s/veh	170.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	0	5	5	0	0	5	430	0	5	970	65
Future Vol, veh/h	35	0	5	5	0	0	5	430	0	5	970	65
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	39	0	6	6	0	0	6	478	0	6	1078	72
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.3	11	18.4	241.1
HCM LOS	B	B	C	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	88%	100%	0%
Vol Thru, %	99%	0%	0%	93%
Vol Right, %	0%	12%	0%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	435	40	5	1040
LT Vol	5	35	5	5
Through Vol	430	0	0	970
RT Vol	0	5	0	65
Lane Flow Rate	483	44	6	1156
Geometry Grp	1	1	1	1
Degree of Util (X)	0.663	0.083	0.011	1.489
Departure Headway (Hd)	5.422	7.606	7.905	4.64
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	672	474	455	786
Service Time	3.422	5.606	5.905	2.661
HCM Lane V/C Ratio	0.719	0.093	0.013	1.471
HCM Control Delay	18.4	11.3	11	241.1
HCM Lane LOS	C	B	B	F
HCM 95th-tile Q	5	0.3	0	55

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	30	105	50	35	5	80	165	55	15	160	25
Future Vol, veh/h	15	30	105	50	35	5	80	165	55	15	160	25
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	33	115	55	38	5	88	181	60	16	176	27
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.7	9.8	11.9	10.3
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	10%	56%	7%
Vol Thru, %	55%	20%	39%	80%
Vol Right, %	18%	70%	6%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	300	150	90	200
LT Vol	80	15	50	15
Through Vol	165	30	35	160
RT Vol	55	105	5	25
Lane Flow Rate	330	165	99	220
Geometry Grp	1	1	1	1
Degree of Util (X)	0.451	0.233	0.156	0.31
Departure Headway (Hd)	4.928	5.091	5.673	5.07
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	735	705	632	712
Service Time	2.936	3.126	3.711	3.079
HCM Lane V/C Ratio	0.449	0.234	0.157	0.309
HCM Control Delay	11.9	9.7	9.8	10.3
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	2.4	0.9	0.5	1.3

Intersection	
Int Delay, s/veh	2.1

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	50	20	50	260	220	60
Future Vol, veh/h	50	20	50	260	220	60
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	-	-	-	-	-
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	8	8	2
Mvmt Flow	54	22	54	283	239	65

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	663	272	304	0	-	0
Stage 1	272	-	-	-	-	-
Stage 2	391	-	-	-	-	-
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	426	767	1257	-	-	-
Stage 1	774	-	-	-	-	-
Stage 2	683	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	404	767	1257	-	-	-
Mov Cap-2 Maneuver	404	-	-	-	-	-
Stage 1	735	-	-	-	-	-
Stage 2	683	-	-	-	-	-

Approach	SB	SE	NW
HCM Control Delay, s	14.2	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SBLn1
Capacity (veh/h)	-	-	1257	-	467
HCM Lane V/C Ratio	-	-	0.043	-	0.163
HCM Control Delay (s)	-	-	8	0	14.2
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0.1	-	0.6

Intersection	
Int Delay, s/veh	17.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	655	105	45	500	110	50
Future Vol, veh/h	655	105	45	500	110	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	736	118	51	562	124	56

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	854	0	1459	795
Stage 1	-	-	-	-	795	-
Stage 2	-	-	-	-	664	-
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	-	-	785	-	142	388
Stage 1	-	-	-	-	445	-
Stage 2	-	-	-	-	512	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	785	-	129	388
Mov Cap-2 Maneuver	-	-	-	-	129	-
Stage 1	-	-	-	-	445	-
Stage 2	-	-	-	-	464	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	157.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	163	-	-	785	-
HCM Lane V/C Ratio	1.103	-	-	0.064	-
HCM Control Delay (s)	157.5	-	-	9.9	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	9.3	-	-	0.2	-

Intersection	
Intersection Delay, s/veh	169.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Vol, veh/h	140	260	335	5	150	10	15	145	145	340	125	5
Future Vol, veh/h	140	260	335	5	150	10	15	145	145	340	125	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	8	2	2	8	2
Mvmt Flow	152	283	364	5	163	11	16	158	158	370	136	5
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

Approach	EB	WB	SE	NW
Opposing Approach	WB	EB	NW	SE
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SE	NW	WB	EB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NW	SE	EB	WB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	293.1	21.1	19.2	126
HCM LOS	F	C	C	F

Lane	NWLn1	NWLn2	EBLn1	WBLn1	SELn1	SELn2
Vol Left, %	73%	0%	19%	3%	9%	0%
Vol Thru, %	27%	0%	35%	91%	91%	0%
Vol Right, %	0%	100%	46%	6%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	465	5	735	165	160	145
LT Vol	340	0	140	5	15	0
Through Vol	125	0	260	150	145	0
RT Vol	0	5	335	10	0	145
Lane Flow Rate	505	5	799	179	174	158
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	1.157	0.011	1.585	0.426	0.413	0.346
Departure Headway (Hd)	9.727	8.714	7.632	10.535	10.589	9.904
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	379	413	487	344	343	366
Service Time	7.427	6.414	5.632	8.535	8.289	7.604
HCM Lane V/C Ratio	1.332	0.012	1.641	0.52	0.507	0.432
HCM Control Delay	127.2	11.5	293.1	21.1	20.5	17.8
HCM Lane LOS	F	B	F	C	C	C
HCM 95th-tile Q	16.8	0	41.3	2.1	2	1.5

Intersection	
Intersection Delay, s/veh	75.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	55	160	45	180	75	50	35	295	125	30	325	45
Future Vol, veh/h	55	160	45	180	75	50	35	295	125	30	325	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	174	49	196	82	54	38	321	136	33	353	49
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	33.3	43.2	119.8	78.3
HCM LOS	D	E	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	21%	59%	7%
Vol Thru, %	65%	62%	25%	81%
Vol Right, %	27%	17%	16%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	455	260	305	400
LT Vol	35	55	180	30
Through Vol	295	160	75	325
RT Vol	125	45	50	45
Lane Flow Rate	495	283	332	435
Geometry Grp	1	1	1	1
Degree of Util (X)	1.151	0.712	0.817	1.013
Departure Headway (Hd)	8.377	9.67	9.452	8.843
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	435	376	385	413
Service Time	6.458	7.67	7.452	6.843
HCM Lane V/C Ratio	1.138	0.753	0.862	1.053
HCM Control Delay	119.8	33.3	43.2	78.3
HCM Lane LOS	F	D	E	F
HCM 95th-tile Q	18.2	5.3	7.3	12.8

Intersection	
Intersection Delay, s/veh	12.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	185	25	80	200	10	45	45	145	25	65	40
Future Vol, veh/h	35	185	25	80	200	10	45	45	145	25	65	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	201	27	87	217	11	49	49	158	27	71	43
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.5	13.8	12	10.7
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	14%	28%	19%
Vol Thru, %	19%	76%	69%	50%
Vol Right, %	62%	10%	3%	31%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	235	245	290	130
LT Vol	45	35	80	25
Through Vol	45	185	200	65
RT Vol	145	25	10	40
Lane Flow Rate	255	266	315	141
Geometry Grp	1	1	1	1
Degree of Util (X)	0.389	0.412	0.486	0.231
Departure Headway (Hd)	5.478	5.567	5.551	5.881
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	654	642	646	606
Service Time	3.546	3.633	3.613	3.958
HCM Lane V/C Ratio	0.39	0.414	0.488	0.233
HCM Control Delay	12	12.5	13.8	10.7
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.8	2	2.7	0.9

Intersection	
Intersection Delay, s/veh	183.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	130	0	10	0	0	5	10	355	0	5	630	260
Future Vol, veh/h	130	0	10	0	0	5	10	355	0	5	630	260
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	163	0	13	0	0	6	13	444	0	6	788	325
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	14.6	11	22.1	276.7
HCM LOS	B	B	C	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	93%	0%	1%
Vol Thru, %	97%	0%	0%	70%
Vol Right, %	0%	7%	100%	29%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	365	140	5	895
LT Vol	10	130	0	5
Through Vol	355	0	0	630
RT Vol	0	10	5	260
Lane Flow Rate	456	175	6	1119
Geometry Grp	1	1	1	1
Degree of Util (X)	0.697	0.329	0.012	1.567
Departure Headway (Hd)	6.15	7.802	7.936	5.043
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	593	464	454	716
Service Time	4.15	5.802	5.936	3.111
HCM Lane V/C Ratio	0.769	0.377	0.013	1.563
HCM Control Delay	22.1	14.6	11	276.7
HCM Lane LOS	C	B	B	F
HCM 95th-tile Q	5.5	1.4	0	57.2

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	70	275	160	190	285	20	20	335	90	165	355	135
Future Volume (veh/h)	70	275	160	190	285	20	20	335	90	165	355	135
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	1737	1870	1870	1737	1737	1781	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	77	302	0	209	313	22	22	368	99	181	390	148
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	11	2	2	11	11	8	8	2	2	8	8
Cap, veh/h	104	365		208	430	30	71	396	373	225	535	203
Arrive On Green	0.06	0.21	0.00	0.12	0.27	0.27	0.24	0.24	0.24	0.13	0.43	0.43
Sat Flow, veh/h	1781	1737	1585	1781	1604	113	47	1681	1585	1781	1230	467
Grp Volume(v), veh/h	77	302	0	209	0	335	390	0	99	181	0	538
Grp Sat Flow(s),veh/h/ln	1781	1737	1585	1781	0	1717	1727	0	1585	1781	0	1697
Q Serve(g_s), s	2.7	10.5	0.0	7.4	0.0	11.2	6.5	0.0	3.2	6.3	0.0	16.6
Cycle Q Clear(g_c), s	2.7	10.5	0.0	7.4	0.0	11.2	14.1	0.0	3.2	6.3	0.0	16.6
Prop In Lane	1.00		1.00	1.00		0.07	0.06		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	104	365		208	0	460	467	0	373	225	0	738
V/C Ratio(X)	0.74	0.83		1.00	0.00	0.73	0.84	0.00	0.27	0.80	0.00	0.73
Avail Cap(c_a), veh/h	293	483		208	0	460	467	0	373	293	0	802
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.3	23.9	0.0	27.9	0.0	21.1	23.8	0.0	19.7	26.9	0.0	14.8
Incr Delay (d2), s/veh	9.7	8.8	0.0	63.2	0.0	5.7	12.4	0.0	0.4	11.6	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	4.9	0.0	6.6	0.0	4.9	6.7	0.0	1.1	3.2	0.0	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.0	32.7	0.0	91.2	0.0	26.8	36.2	0.0	20.1	38.5	0.0	17.9
LnGrp LOS	D	C		F	A	C	D	A	C	D	A	B
Approach Vol, veh/h		379	A		544			489			719	
Approach Delay, s/veh		34.0			51.5			32.9			23.1	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	12.0	18.7	12.6	20.0	8.3	22.4		32.6
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	* 5.4		5.1
Max Green Setting (Gmax), s	7.4	17.6	10.4	14.9	10.4	* 15		29.9
Max Q Clear Time (g_c+I1), s	9.4	12.5	8.3	16.1	4.7	13.2		18.6
Green Ext Time (p_c), s	0.0	0.8	0.1	0.0	0.1	0.4		2.7

Intersection Summary			
HCM 6th Ctrl Delay			34.5
HCM 6th LOS			C

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	45.8
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	100	220	70	35	105	15	65	445	30	25	45	40
Future Vol, veh/h	100	220	70	35	105	15	65	445	30	25	45	40
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	110	242	77	38	115	16	71	489	33	27	49	44
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	29.5	14.4	73.4	12.7
HCM LOS	D	B	F	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	26%	23%	23%
Vol Thru, %	82%	56%	68%	41%
Vol Right, %	6%	18%	10%	36%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	540	390	155	110
LT Vol	65	100	35	25
Through Vol	445	220	105	45
RT Vol	30	70	15	40
Lane Flow Rate	593	429	170	121
Geometry Grp	1	1	1	1
Degree of Util (X)	1.04	0.777	0.341	0.242
Departure Headway (Hd)	6.308	6.773	7.53	7.402
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	582	540	480	488
Service Time	4.315	4.773	5.53	5.402
HCM Lane V/C Ratio	1.019	0.794	0.354	0.248
HCM Control Delay	73.4	29.5	14.4	12.7
HCM Lane LOS	F	D	B	B
HCM 95th-tile Q	16.4	7.1	1.5	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	0	300	20	10	10	200	460	0	0	415	40
Future Volume (veh/h)	60	0	300	20	10	10	200	460	0	0	415	40
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	1737	1737	1737	1737	1737
Adj Flow Rate, veh/h	65	0	326	22	11	11	217	500	0	0	451	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	11	11	11
Cap, veh/h	529	0	404	262	129	89	277	1692	0	0	755	72
Arrive On Green	0.25	0.00	0.25	0.25	0.25	0.25	0.16	0.51	0.00	0.00	0.25	0.25
Sat Flow, veh/h	1419	0	1585	536	508	348	1781	3387	0	0	3133	289
Grp Volume(v), veh/h	65	0	326	44	0	0	217	500	0	0	244	250
Grp Sat Flow(s),veh/h/ln	1419	0	1585	1392	0	0	1781	1650	0	0	1650	1685
Q Serve(g_s), s	0.5	0.0	8.3	0.0	0.0	0.0	5.0	3.7	0.0	0.0	5.6	5.6
Cycle Q Clear(g_c), s	1.3	0.0	8.3	0.8	0.0	0.0	5.0	3.7	0.0	0.0	5.6	5.6
Prop In Lane	1.00		1.00	0.50		0.25	1.00		0.00	0.00		0.17
Lane Grp Cap(c), veh/h	529	0	404	480	0	0	277	1692	0	0	409	418
V/C Ratio(X)	0.12	0.00	0.81	0.09	0.00	0.00	0.78	0.30	0.00	0.00	0.60	0.60
Avail Cap(c_a), veh/h	673	0	568	480	0	0	427	2272	0	0	1136	1160
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	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	12.4	0.0	15.0	12.2	0.0	0.0	17.5	6.0	0.0	0.0	14.3	14.3
Incr Delay (d2), s/veh	0.1	0.0	5.8	0.1	0.0	0.0	5.1	0.1	0.0	0.0	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	3.1	0.3	0.0	0.0	2.2	0.9	0.0	0.0	1.9	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.5	0.0	20.8	12.3	0.0	0.0	22.6	6.1	0.0	0.0	15.7	15.7
LnGrp LOS	B	A	C	B	A	A	C	A	A	A	B	B
Approach Vol, veh/h		391			44			717			494	
Approach Delay, s/veh		19.5			12.3			11.1			15.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	4	5	6	8
Phs Duration (G+Y+Rc), s	27.4	15.6	11.4	16.1	15.6
Change Period (Y+Rc), s	5.4	4.6	* 4.7	5.4	4.6
Max Green Setting (Gmax), s	29.6	15.4	* 10	29.6	5.4
Max Q Clear Time (g_c+I1), s	5.7	10.3	7.0	7.6	2.8
Green Ext Time (p_c), s	3.5	0.7	0.2	3.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	SBL	SBR	SEL	SET	NWT	NWR	
Lane Configurations							
Traffic Volume (veh/h)	95	80	80	575	610	125	
Future Volume (veh/h)	95	80	80	575	610	125	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No	No		
Adj Sat Flow, veh/h/ln	1900	1900	1870	1781	1781	1870	
Adj Flow Rate, veh/h	109	92	92	661	701	144	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	
Percent Heavy Veh, %	0	0	2	8	8	2	
Cap, veh/h	140	118	133	1139	812	723	
Arrive On Green	0.15	0.15	0.07	0.64	0.46	0.46	
Sat Flow, veh/h	910	768	1781	1781	1781	1585	
Grp Volume(v), veh/h	202	0	92	661	701	144	
Grp Sat Flow(s),veh/h/ln	1687	0	1781	1781	1781	1585	
Q Serve(g_s), s	5.4	0.0	2.4	10.0	16.5	2.5	
Cycle Q Clear(g_c), s	5.4	0.0	2.4	10.0	16.5	2.5	
Prop In Lane	0.54	0.46	1.00			1.00	
Lane Grp Cap(c), veh/h	259	0	133	1139	812	723	
V/C Ratio(X)	0.78	0.00	0.69	0.58	0.86	0.20	
Avail Cap(c_a), veh/h	555	0	377	1139	947	843	
HCM Platoon Ratio	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	
Uniform Delay (d), s/veh	19.1	0.0	21.2	4.8	11.4	7.6	
Incr Delay (d2), s/veh	5.1	0.0	6.3	0.7	7.4	0.1	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.2	0.0	1.1	2.1	6.5	0.7	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	24.1	0.0	27.5	5.6	18.8	7.8	
LnGrp LOS	C	A	C	A	B	A	
Approach Vol, veh/h	202			753	845		
Approach Delay, s/veh	24.1			8.3	16.9		
Approach LOS	C			A	B		
Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	8.6	26.5				35.0	11.8
Change Period (Y+Rc), s	5.1	5.1				5.1	4.6
Max Green Setting (Gmax), s	9.9	24.9				24.9	15.4
Max Q Clear Time (g_c+I1), s	4.4	18.5				12.0	7.4
Green Ext Time (p_c), s	0.1	2.8				3.8	0.4

Intersection Summary			
HCM 6th Ctrl Delay			14.1
HCM 6th LOS			B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection						
Int Delay, s/veh	0.9					

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	25	5	5	675	755	50
Future Vol, veh/h	25	5	5	675	755	50
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	-	-	-	-	-
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	8	8	2
Mvmt Flow	27	5	5	734	821	54

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1592	848	875	0	-	0
Stage 1	848	-	-	-	-	-
Stage 2	744	-	-	-	-	-
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	118	361	771	-	-	-
Stage 1	420	-	-	-	-	-
Stage 2	470	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	117	361	771	-	-	-
Mov Cap-2 Maneuver	117	-	-	-	-	-
Stage 1	415	-	-	-	-	-
Stage 2	470	-	-	-	-	-

Approach	SB	SE	NW
HCM Control Delay, s	41	0.1	0
HCM LOS	E		

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SBLn1
Capacity (veh/h)	-	-	771	-	132
HCM Lane V/C Ratio	-	-	0.007	-	0.247
HCM Control Delay (s)	-	-	9.7	0	41
HCM Lane LOS	-	-	A	A	E
HCM 95th %tile Q(veh)	-	-	0	-	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	30	80	55	60	80	75	545	50	45	605	15
Future Volume (veh/h)	10	30	80	55	60	80	75	545	50	45	605	15
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	1737	1737	1870	1737	1737
Adj Flow Rate, veh/h	11	33	87	60	65	87	82	592	54	49	658	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	2	11	11
Cap, veh/h	15	44	115	82	88	118	117	930	85	86	944	23
Arrive On Green	0.10	0.10	0.10	0.17	0.17	0.17	0.07	0.30	0.30	0.05	0.29	0.29
Sat Flow, veh/h	140	419	1105	487	527	705	1781	3058	278	1781	3293	80
Grp Volume(v), veh/h	131	0	0	212	0	0	82	319	327	49	330	344
Grp Sat Flow(s),veh/h/ln	1664	0	0	1719	0	0	1781	1650	1687	1781	1650	1723
Q Serve(g_s), s	4.1	0.0	0.0	6.3	0.0	0.0	2.4	9.0	9.0	1.5	9.6	9.6
Cycle Q Clear(g_c), s	4.1	0.0	0.0	6.3	0.0	0.0	2.4	9.0	9.0	1.5	9.6	9.6
Prop In Lane	0.08		0.66	0.28		0.41	1.00		0.17	1.00		0.05
Lane Grp Cap(c), veh/h	173	0	0	288	0	0	117	502	513	86	473	494
V/C Ratio(X)	0.76	0.00	0.00	0.74	0.00	0.00	0.70	0.64	0.64	0.57	0.70	0.70
Avail Cap(c_a), veh/h	466	0	0	834	0	0	347	853	872	347	853	890
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	0.0	0.0	21.3	0.0	0.0	24.7	16.2	16.2	25.1	17.2	17.2
Incr Delay (d2), s/veh	6.6	0.0	0.0	3.7	0.0	0.0	7.4	1.3	1.3	5.8	1.9	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	1.8	0.0	0.0	2.6	0.0	0.0	1.2	3.2	3.3	0.7	3.5	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	0.0	0.0	25.0	0.0	0.0	32.1	17.5	17.5	31.0	19.0	18.9
LnGrp LOS	C	A	A	C	A	A	C	B	B	C	B	B
Approach Vol, veh/h		131			212			728			723	
Approach Delay, s/veh		30.1			25.0			19.2			19.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.3	21.8		10.7	8.2	20.9		14.1
Change Period (Y+Rc), s	* 4.7	5.4		5.1	* 4.7	5.4		5.1
Max Green Setting (Gmax), s	* 11	27.9		15.1	* 11	27.9		26.2
Max Q Clear Time (g_c+I1), s	3.5	11.0		6.1	4.4	11.6		8.3
Green Ext Time (p_c), s	0.0	3.8		0.4	0.1	3.9		1.1

Intersection Summary	
HCM 6th Ctrl Delay	20.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	210	250	60	190	405	35	15	440	225	150	555	140
Future Volume (veh/h)	210	250	60	190	405	35	15	440	225	150	555	140
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	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	228	272	65	207	440	38	16	478	245	163	603	152
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	8	2	2	8	8
Cap, veh/h	154	184	44	89	188	16	32	495	440	194	506	128
Arrive On Green	0.21	0.21	0.21	0.16	0.16	0.16	0.02	0.28	0.28	0.11	0.37	0.37
Sat Flow, veh/h	725	865	207	551	1172	101	1781	1781	1585	1781	1373	346
Grp Volume(v), veh/h	565	0	0	685	0	0	16	478	245	163	0	755
Grp Sat Flow(s),veh/h/ln	1797	0	0	1825	0	0	1781	1781	1585	1781	0	1719
Q Serve(g_s), s	21.0	0.0	0.0	15.9	0.0	0.0	0.9	26.2	13.1	8.9	0.0	36.5
Cycle Q Clear(g_c), s	21.0	0.0	0.0	15.9	0.0	0.0	0.9	26.2	13.1	8.9	0.0	36.5
Prop In Lane	0.40		0.12	0.30		0.06	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	381	0	0	293	0	0	32	495	440	194	0	634
V/C Ratio(X)	1.48	0.00	0.00	2.34	0.00	0.00	0.50	0.97	0.56	0.84	0.00	1.19
Avail Cap(c_a), veh/h	381	0	0	293	0	0	90	495	440	212	0	634
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.0	0.0	0.0	41.5	0.0	0.0	48.2	35.3	30.5	43.2	0.0	31.2
Incr Delay (d2), s/veh	230.7	0.0	0.0	612.4	0.0	0.0	11.5	31.8	1.5	23.3	0.0	100.9
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	38.3	0.0	0.0	56.5	0.0	0.0	0.5	14.7	4.8	4.9	0.0	31.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	269.7	0.0	0.0	654.0	0.0	0.0	59.7	67.1	32.1	66.5	0.0	132.1
LnGrp LOS	F	A	A	F	A	A	E	E	C	E	A	F
Approach Vol, veh/h		565			685			739			918	
Approach Delay, s/veh		269.7			654.0			55.3			120.4	
Approach LOS		F			F			E			F	

Timer - Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		26.4	16.2	34.0		22.4	7.2	43.0
Change Period (Y+Rc), s		5.4	5.4	6.5		6.5	5.4	6.5
Max Green Setting (Gmax), s		21.0	11.8	27.5		15.9	5.0	34.3
Max Q Clear Time (g_c+I1), s		23.0	10.9	28.2		17.9	2.9	38.5
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	0.0

Intersection Summary		
HCM 6th Ctrl Delay		258.6
HCM 6th LOS		F

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	65	10	650	60	25	715
Future Vol, veh/h	65	10	650	60	25	715
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	-	-	-	10	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	11	2	2	11
Mvmt Flow	71	11	707	65	27	777

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1183	386	0	0	772	0
Stage 1	740	-	-	-	-	-
Stage 2	443	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	182	612	-	-	839	-
Stage 1	433	-	-	-	-	-
Stage 2	614	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	176	612	-	-	839	-
Mov Cap-2 Maneuver	306	-	-	-	-	-
Stage 1	433	-	-	-	-	-
Stage 2	594	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.6	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	328	839	-
HCM Lane V/C Ratio	-	-	0.249	0.032	-
HCM Control Delay (s)	-	-	19.6	9.4	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	1	0.1	-

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	115	265	270	565	600	180
Future Volume (veh/h)	115	265	270	565	600	180
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1737	1737	1870
Adj Flow Rate, veh/h	125	0	293	614	652	196
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	11	11	2
Cap, veh/h	170		380	2129	992	477
Arrive On Green	0.10	0.00	0.21	0.64	0.30	0.30
Sat Flow, veh/h	1781	1585	1781	3387	3387	1585
Grp Volume(v), veh/h	125	0	293	614	652	196
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1650	1650	1585
Q Serve(g_s), s	2.7	0.0	6.0	3.2	6.7	3.8
Cycle Q Clear(g_c), s	2.7	0.0	6.0	3.2	6.7	3.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	170		380	2129	992	477
V/C Ratio(X)	0.74		0.77	0.29	0.66	0.41
Avail Cap(c_a), veh/h	426		866	3446	1409	677
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	17.1	0.0	14.4	3.0	11.8	10.9
Incr Delay (d2), s/veh	6.1	0.0	3.4	0.1	0.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	2.2	0.2	1.8	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.2	0.0	17.8	3.1	12.6	11.4
LnGrp LOS	C		B	A	B	B
Approach Vol, veh/h	125	A		907	848	
Approach Delay, s/veh	23.2			7.8	12.3	
Approach LOS	C			A	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		30.5		8.4	13.4	17.1
Change Period (Y+Rc), s		5.4		* 4.7	5.1	5.4
Max Green Setting (Gmax), s		40.6		* 9.3	18.9	16.6
Max Q Clear Time (g_c+I1), s		5.2		4.7	8.0	8.7
Green Ext Time (p_c), s		4.4		0.1	0.6	3.0

Intersection Summary		
HCM 6th Ctrl Delay		10.9
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	195	45	300	280	285	60	405	305	445	340	20
Future Volume (veh/h)	105	195	45	300	280	285	60	405	305	445	340	20
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	1737	1870	1870	1737	1737
Adj Flow Rate, veh/h	114	212	49	326	304	310	65	440	332	484	370	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	2	2	11	11
Cap, veh/h	146	240	54	291	281	251	98	666	320	371	1123	67
Arrive On Green	0.08	0.08	0.08	0.16	0.16	0.16	0.06	0.20	0.20	0.21	0.35	0.35
Sat Flow, veh/h	1781	2878	652	1781	1777	1585	1781	3300	1585	1781	3166	188
Grp Volume(v), veh/h	114	129	132	326	304	310	65	440	332	484	192	200
Grp Sat Flow(s),veh/h/ln	1781	1777	1753	1781	1777	1585	1781	1650	1585	1781	1650	1703
Q Serve(g_s), s	3.8	4.3	4.5	9.8	9.5	9.5	2.1	7.4	12.1	12.5	5.1	5.1
Cycle Q Clear(g_c), s	3.8	4.3	4.5	9.8	9.5	9.5	2.1	7.4	12.1	12.5	5.1	5.1
Prop In Lane	1.00		0.37	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	146	148	146	291	281	251	98	666	320	371	586	604
V/C Ratio(X)	0.78	0.87	0.90	1.12	1.08	1.24	0.66	0.66	1.04	1.30	0.33	0.33
Avail Cap(c_a), veh/h	175	148	146	291	281	251	160	666	320	371	586	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.0	27.2	27.3	25.1	25.3	25.3	27.8	22.1	24.0	23.8	14.1	14.1
Incr Delay (d2), s/veh	17.1	39.4	46.8	89.2	77.1	135.7	7.4	2.4	60.7	155.2	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	3.3	3.6	10.9	9.6	12.6	1.0	2.8	9.4	20.6	1.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.1	66.6	74.0	114.3	102.3	160.9	35.2	24.5	84.7	179.0	14.5	14.5
LnGrp LOS	D	E	E	F	F	F	D	C	F	F	B	B
Approach Vol, veh/h		375			940			837			876	
Approach Delay, s/veh		62.4			125.8			49.2			105.4	
Approach LOS		E			F			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.6	17.5	14.5	10.4	8.4	26.7	10.0	14.9
Change Period (Y+Rc), s	5.1	5.4	* 4.7	5.4	5.1	5.4	5.1	5.4
Max Green Setting (Gmax), s	12.5	12.1	* 9.8	5.0	5.4	19.2	5.9	8.5
Max Q Clear Time (g_c+I1), s	14.5	14.1	11.8	6.5	4.1	7.1	5.8	11.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	90.9
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	30	30	45	15	70	5	695	80	35	565	15
Future Volume (veh/h)	55	30	30	45	15	70	5	695	80	35	565	15
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	1737	1737	1870	1737	1737
Adj Flow Rate, veh/h	60	33	33	49	16	76	5	755	87	38	614	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	2	11	11
Cap, veh/h	102	56	139	124	41	145	12	1052	121	72	1270	33
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.01	0.35	0.35	0.04	0.39	0.39
Sat Flow, veh/h	1169	643	1585	1359	444	1585	1781	2982	343	1781	3286	86
Grp Volume(v), veh/h	93	0	33	65	0	76	5	418	424	38	308	322
Grp Sat Flow(s),veh/h/ln	1812	0	1585	1802	0	1585	1781	1650	1675	1781	1650	1722
Q Serve(g_s), s	2.2	0.0	0.9	1.5	0.0	2.1	0.1	10.0	10.0	0.9	6.4	6.4
Cycle Q Clear(g_c), s	2.2	0.0	0.9	1.5	0.0	2.1	0.1	10.0	10.0	0.9	6.4	6.4
Prop In Lane	0.65		1.00	0.75		1.00	1.00		0.21	1.00		0.05
Lane Grp Cap(c), veh/h	159	0	139	165	0	145	12	582	591	72	638	665
V/C Ratio(X)	0.59	0.00	0.24	0.39	0.00	0.52	0.42	0.72	0.72	0.53	0.48	0.48
Avail Cap(c_a), veh/h	256	0	224	226	0	199	200	855	868	208	851	888
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.9	0.0	19.3	19.4	0.0	19.7	22.4	12.7	12.7	21.4	10.5	10.5
Incr Delay (d2), s/veh	3.4	0.0	0.9	1.5	0.0	2.9	21.5	1.7	1.7	5.9	0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.3	0.6	0.0	0.8	0.1	3.1	3.1	0.5	1.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.3	0.0	20.2	20.9	0.0	22.6	43.9	14.4	14.4	27.3	11.1	11.1
LnGrp LOS	C	A	C	C	A	C	D	B	B	C	B	B
Approach Vol, veh/h		126			141			847			668	
Approach Delay, s/veh		22.5			21.8			14.6			12.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.5	21.4		8.6	5.0	22.9		8.9
Change Period (Y+Rc), s	* 4.7	* 5.4		4.6	* 4.7	5.4		4.7
Max Green Setting (Gmax), s	* 5.3	* 24		6.4	* 5.1	23.4		5.7
Max Q Clear Time (g_c+I1), s	2.9	12.0		4.2	2.1	8.4		4.1
Green Ext Time (p_c), s	0.0	4.1		0.1	0.0	3.2		0.1

Intersection Summary	
HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	37.7
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	130	0	310	3	1	1	260	590	15	0	380	40
Future Vol, veh/h	130	0	310	3	1	1	260	590	15	0	380	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	11	2	2	11	2
Mvmt Flow	141	0	337	3	1	1	283	641	16	0	413	43
Number of Lanes	1	1	0	0	1	0	1	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	3	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	1	2
HCM Control Delay	32.2	14.4	45.4	27.8
HCM LOS	D	B	E	D

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	60%	0%	0%
Vol Thru, %	0%	100%	93%	0%	0%	20%	100%	76%
Vol Right, %	0%	0%	7%	0%	100%	20%	0%	24%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	260	393	212	130	310	5	253	167
LT Vol	260	0	0	130	0	3	0	0
Through Vol	0	393	197	0	0	1	253	127
RT Vol	0	0	15	0	310	1	0	40
Lane Flow Rate	283	428	230	141	337	5	275	181
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.684	0.992	0.521	0.384	0.8	0.017	0.723	0.459
Departure Headway (Hd)	8.71	8.353	8.145	9.776	8.548	11.412	9.447	9.115
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	415	436	444	369	425	313	383	395
Service Time	6.456	6.098	5.89	7.535	6.306	9.194	7.21	6.878
HCM Lane V/C Ratio	0.682	0.982	0.518	0.382	0.793	0.016	0.718	0.458
HCM Control Delay	28.4	70.6	19.5	18.5	37.9	14.4	33.4	19.4
HCM Lane LOS	D	F	C	C	E	B	D	C
HCM 95th-tile Q	5	12.4	2.9	1.8	7.1	0.1	5.5	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	350	25	180	290	80	15	770	250	150	510	75
Future Volume (veh/h)	115	350	25	180	290	80	15	770	250	150	510	75
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	1737	1737	1737	1870	1737	1870
Adj Flow Rate, veh/h	125	380	0	196	315	87	16	837	0	163	554	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	11	11	11	2	11	2
Cap, veh/h	159	479		236	491	133	16	869		360	351	
Arrive On Green	0.09	0.13	0.00	0.13	0.18	0.18	0.26	0.26	0.00	0.20	0.20	0.00
Sat Flow, veh/h	1781	3554	1585	1781	2762	751	61	3410	0	1781	1737	1585
Grp Volume(v), veh/h	125	380	0	196	201	201	457	396	0	163	554	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1735	1734	1650	0	1781	1737	1585
Q Serve(g_s), s	5.1	7.6	0.0	7.9	7.7	8.0	19.3	17.2	0.0	5.9	14.9	0.0
Cycle Q Clear(g_c), s	5.1	7.6	0.0	7.9	7.7	8.0	19.3	17.2	0.0	5.9	14.9	0.0
Prop In Lane	1.00		1.00	1.00		0.43	0.04		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	159	479		236	316	309	453	431		360	351	
V/C Ratio(X)	0.79	0.79		0.83	0.64	0.65	1.01	0.92		0.45	1.58	
Avail Cap(c_a), veh/h	229	525		249	316	309	453	431		360	351	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.9	30.9	0.0	31.2	28.1	28.2	27.3	26.5	0.0	25.9	29.5	0.0
Incr Delay (d2), s/veh	10.8	7.6	0.0	20.0	4.2	4.8	44.3	24.4	0.0	0.9	274.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	3.6	0.0	4.5	3.4	3.5	13.1	9.3	0.0	2.5	32.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.7	38.5	0.0	51.2	32.3	33.0	71.6	50.8	0.0	26.8	303.7	0.0
LnGrp LOS	D	D		D	C	C	F	D		C	F	
Approach Vol, veh/h		505	A		598			853	A		717	A
Approach Delay, s/veh		39.8			38.7			62.0			240.8	
Approach LOS		D			D			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		24.0	14.5	15.3		20.0	11.3	18.5
Change Period (Y+Rc), s		* 4.7	* 4.7	* 5.4		5.1	* 4.7	5.4
Max Green Setting (Gmax), s		* 19	* 10	* 11		14.9	* 9.5	11.4
Max Q Clear Time (g_c+I1), s		21.3	9.9	9.6		16.9	7.1	10.0
Green Ext Time (p_c), s		0.0	0.0	0.3		0.0	0.1	0.3

Intersection Summary		
HCM 6th Ctrl Delay		100.5
HCM 6th LOS		F

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	1	250	3	2	1	330	620	0	3	495	220
Future Volume (veh/h)	300	1	250	3	2	1	330	620	0	3	495	220
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	326	1	272	3	2	1	359	674	0	3	538	239
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	283	1	181	98	49	10	560	588	0	3	585	499
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.31	0.31	0.00	0.31	0.31	0.31
Sat Flow, veh/h	1414	6	1580	0	426	85	1781	1870	0	10	1859	1585
Grp Volume(v), veh/h	326	0	273	6	0	0	359	674	0	541	0	239
Grp Sat Flow(s),veh/h/ln	1414	0	1586	512	0	0	1781	1870	0	1870	0	1585
Q Serve(g_s), s	0.0	0.0	6.3	0.0	0.0	0.0	9.5	17.3	0.0	15.3	0.0	6.7
Cycle Q Clear(g_c), s	6.3	0.0	6.3	6.3	0.0	0.0	9.5	17.3	0.0	15.3	0.0	6.7
Prop In Lane	1.00		1.00	0.50		0.17	1.00		0.00	0.01		1.00
Lane Grp Cap(c), veh/h	283	0	182	157	0	0	560	588	0	588	0	499
V/C Ratio(X)	1.15	0.00	1.50	0.04	0.00	0.00	0.64	1.15	0.00	0.92	0.00	0.48
Avail Cap(c_a), veh/h	283	0	182	157	0	0	560	588	0	588	0	499
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	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.8	0.0	24.4	21.8	0.0	0.0	16.2	18.9	0.0	18.2	0.0	15.2
Incr Delay (d2), s/veh	100.5	0.0	252.8	0.1	0.0	0.0	2.5	84.3	0.0	19.8	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	0.0	14.9	0.1	0.0	0.0	3.8	20.3	0.0	9.0	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	126.3	0.0	277.1	21.9	0.0	0.0	18.6	103.1	0.0	38.0	0.0	15.9
LnGrp LOS	F	A	F	C	A	A	B	F	A	D	A	B
Approach Vol, veh/h		599			6			1033			780	
Approach Delay, s/veh		195.0			21.9			73.8			31.2	
Approach LOS		F			C			E			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	22.0	11.0	22.0	11.0
Change Period (Y+Rc), s	* 4.7	* 4.7	4.7	* 4.7
Max Green Setting (Gmax), s	* 17	* 6.3	17.3	* 6.3
Max Q Clear Time (g_c+I1), s	19.3	8.3	17.3	8.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	90.0
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	155	190	20	100	215	210	455	25	205	245	285
Future Volume (veh/h)	265	155	190	20	100	215	210	455	25	205	245	285
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	288	168	207	22	109	234	228	495	27	223	266	310
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	335	601	537	45	328	278	271	876	48	328	371	314
Arrive On Green	0.19	0.34	0.34	0.03	0.18	0.18	0.15	0.26	0.26	0.09	0.20	0.20
Sat Flow, veh/h	1781	1777	1585	1781	1870	1585	1781	3427	187	3456	1870	1585
Grp Volume(v), veh/h	288	168	207	22	109	234	228	256	266	223	266	310
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1870	1585	1781	1777	1837	1728	1870	1585
Q Serve(g_s), s	10.5	4.6	6.7	0.8	3.4	9.6	8.4	8.4	8.5	4.2	8.9	13.1
Cycle Q Clear(g_c), s	10.5	4.6	6.7	0.8	3.4	9.6	8.4	8.4	8.5	4.2	8.9	13.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	335	601	537	45	328	278	271	454	469	328	371	314
V/C Ratio(X)	0.86	0.28	0.39	0.49	0.33	0.84	0.84	0.56	0.57	0.68	0.72	0.99
Avail Cap(c_a), veh/h	380	601	537	133	360	305	273	454	469	530	371	314
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.4	16.2	16.9	32.3	24.2	26.8	27.7	21.7	21.7	29.4	25.1	26.8
Incr Delay (d2), s/veh	16.3	0.3	0.5	8.2	0.6	17.5	20.3	1.6	1.6	2.5	6.5	47.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	1.8	2.3	0.4	1.5	4.7	4.9	3.5	3.6	1.8	4.4	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.7	16.5	17.3	40.5	24.8	44.2	48.0	23.3	23.3	31.9	31.7	73.8
LnGrp LOS	D	B	B	D	C	D	D	C	C	C	C	E
Approach Vol, veh/h		663			365			750			799	
Approach Delay, s/veh		28.1			38.2			30.8			48.1	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	21.8	6.4	27.8	14.9	18.0	17.3	16.9
Change Period (Y+Rc), s	* 4.7	* 4.7	* 4.7	* 5.1	* 4.7	* 4.7	* 4.7	5.1
Max Green Setting (Gmax), s	* 10	* 13	* 5	* 23	* 10	* 13	* 14	12.9
Max Q Clear Time (g_c+I1), s	6.2	10.5	2.8	8.7	10.4	15.1	12.5	11.6
Green Ext Time (p_c), s	0.3	0.9	0.0	1.9	0.0	0.0	0.2	0.2

Intersection Summary	
HCM 6th Ctrl Delay	36.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	475	165	20	50	430	210	85	295	250	5	315	20
Future Volume (veh/h)	475	165	20	50	430	210	85	295	250	5	315	20
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	1781	1870	1870	1870	1870	1870	1781	1781
Adj Flow Rate, veh/h	516	179	22	54	467	228	92	321	272	5	342	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	8	2	2	2	2	2	8	8
Cap, veh/h	548	502	62	335	637	298	118	369	306	12	454	29
Arrive On Green	0.31	0.31	0.31	0.19	0.19	0.19	0.07	0.20	0.20	0.01	0.14	0.14
Sat Flow, veh/h	1781	1633	201	1781	3385	1585	1781	1844	1528	1781	3230	207
Grp Volume(v), veh/h	516	0	201	54	467	228	92	309	284	5	179	185
Grp Sat Flow(s),veh/h/ln	1781	0	1834	1781	1692	1585	1781	1777	1595	1781	1692	1744
Q Serve(g_s), s	20.5	0.0	6.2	1.8	9.4	9.9	3.7	12.2	12.6	0.2	7.4	7.4
Cycle Q Clear(g_c), s	20.5	0.0	6.2	1.8	9.4	9.9	3.7	12.2	12.6	0.2	7.4	7.4
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.96	1.00		0.12
Lane Grp Cap(c), veh/h	548	0	564	335	637	298	118	355	319	12	238	245
V/C Ratio(X)	0.94	0.00	0.36	0.16	0.73	0.76	0.78	0.87	0.89	0.42	0.75	0.76
Avail Cap(c_a), veh/h	548	0	564	403	765	358	130	355	319	128	336	346
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	24.5	0.0	19.5	24.6	27.7	27.9	33.4	28.1	28.2	35.9	30.0	30.0
Incr Delay (d2), s/veh	24.9	0.0	0.4	0.2	2.9	7.8	23.7	20.1	25.0	22.5	5.8	5.9
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	11.5	0.0	2.5	0.8	4.0	3.9	2.2	6.5	6.4	0.2	3.0	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.4	0.0	19.9	24.9	30.7	35.7	57.1	48.2	53.3	58.4	35.7	35.9
LnGrp LOS	D	A	B	C	C	D	E	D	D	E	D	D
Approach Vol, veh/h		717			749			685			369	
Approach Delay, s/veh		41.1			31.8			51.5			36.1	
Approach LOS		D			C			D			D	

Timer - Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		27.7	5.6	21.0		18.3	9.9	16.7
Change Period (Y+Rc), s		5.4	5.1	6.5		4.6	5.1	6.5
Max Green Setting (Gmax), s		22.3	5.2	14.5		16.4	5.3	14.4
Max Q Clear Time (g_c+I1), s		22.5	2.2	14.6		11.9	5.7	9.4
Green Ext Time (p_c), s		0.0	0.0	0.0		1.8	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	40.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	3.5

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	215	15	90	245	1	35	1	80	1	1	0
Future Vol, veh/h	0	215	15	90	245	1	35	1	80	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	0	247	17	103	282	1	40	1	92	1	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	283	0	0	264	0	0	745	745	256	791	753	283
Stage 1	-	-	-	-	-	-	256	256	-	489	489	-
Stage 2	-	-	-	-	-	-	489	489	-	302	264	-
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	1279	-	-	1300	-	-	330	342	783	307	339	756
Stage 1	-	-	-	-	-	-	749	696	-	561	549	-
Stage 2	-	-	-	-	-	-	561	549	-	707	690	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1279	-	-	1300	-	-	305	310	783	251	307	756
Mov Cap-2 Maneuver	-	-	-	-	-	-	305	310	-	251	307	-
Stage 1	-	-	-	-	-	-	749	696	-	561	497	-
Stage 2	-	-	-	-	-	-	507	497	-	623	690	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0	2.1	14.1	18.2
HCM LOS			B	C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	527	1300	-	-	1279	-	-	276
HCM Lane V/C Ratio	0.253	0.08	-	-	-	-	-	0.008
HCM Control Delay (s)	14.1	8	0	-	0	-	-	18.2
HCM Lane LOS	B	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	1	0.3	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	2.2

Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	5	75	65	230	245	1
Future Vol, veh/h	5	75	65	230	245	1
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	8	8	2
Mvmt Flow	6	86	75	264	282	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	697	283	283	0	-	0
Stage 1	283	-	-	-	-	-
Stage 2	414	-	-	-	-	-
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	407	756	1279	-	-	-
Stage 1	765	-	-	-	-	-
Stage 2	667	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	379	756	1279	-	-	-
Mov Cap-2 Maneuver	379	-	-	-	-	-
Stage 1	712	-	-	-	-	-
Stage 2	667	-	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s	10.8	1.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWR	WBLn1	SEL	SET
Capacity (veh/h)	-	-	712	1279	-
HCM Lane V/C Ratio	-	-	0.129	0.058	-
HCM Control Delay (s)	-	-	10.8	8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.2	-

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	5	50	15	50	45	5	20	60	40	5	65	5
Future Vol, veh/h	5	50	15	50	45	5	20	60	40	5	65	5
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	58	17	58	52	6	23	70	47	6	76	6
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	8.4	8.2	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	7%	50%	7%
Vol Thru, %	50%	71%	45%	87%
Vol Right, %	33%	21%	5%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	120	70	100	75
LT Vol	20	5	50	5
Through Vol	60	50	45	65
RT Vol	40	15	5	5
Lane Flow Rate	140	81	116	87
Geometry Grp	1	1	1	1
Degree of Util (X)	0.168	0.101	0.149	0.11
Departure Headway (Hd)	4.33	4.472	4.612	4.524
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	829	802	778	793
Service Time	2.351	2.496	2.635	2.548
HCM Lane V/C Ratio	0.169	0.101	0.149	0.11
HCM Control Delay	8.2	8	8.4	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.3	0.5	0.4

Intersection	
Intersection Delay, s/veh	15
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	60	5	45	0	5	0	15	365	0	1	430	65
Future Vol, veh/h	60	5	45	0	5	0	15	365	0	1	430	65
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	63	5	47	0	5	0	16	384	0	1	453	68
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.3	9.5	13.6	17.1
HCM LOS	B	A	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	55%	0%	0%
Vol Thru, %	96%	5%	100%	87%
Vol Right, %	0%	41%	0%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	380	110	5	496
LT Vol	15	60	0	1
Through Vol	365	5	5	430
RT Vol	0	45	0	65
Lane Flow Rate	400	116	5	522
Geometry Grp	1	1	1	1
Degree of Util (X)	0.541	0.191	0.009	0.677
Departure Headway (Hd)	4.869	5.946	6.39	4.665
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	732	607	563	767
Service Time	2.957	3.946	4.397	2.745
HCM Lane V/C Ratio	0.546	0.191	0.009	0.681
HCM Control Delay	13.6	10.3	9.5	17.1
HCM Lane LOS	B	B	A	C
HCM 95th-tile Q	3.3	0.7	0	5.4

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	20	70	50	25	10	40	110	35	5	145	10
Future Vol, veh/h	5	20	70	50	25	10	40	110	35	5	145	10
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	26	91	65	32	13	52	143	45	6	188	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	8.7	9.3	10.1	9
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	22%	5%	59%	6%	0%
Vol Thru, %	59%	21%	29%	94%	88%
Vol Right, %	19%	74%	12%	0%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	185	95	85	78	83
LT Vol	40	5	50	5	0
Through Vol	110	20	25	73	73
RT Vol	35	70	10	0	10
Lane Flow Rate	240	123	110	101	107
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.32	0.162	0.16	0.15	0.156
Departure Headway (Hd)	4.797	4.727	5.211	5.364	5.246
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	745	753	683	664	679
Service Time	2.861	2.797	3.283	3.133	3.015
HCM Lane V/C Ratio	0.322	0.163	0.161	0.152	0.158
HCM Control Delay	10.1	8.7	9.3	9.1	9
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	1.4	0.6	0.6	0.5	0.6

Intersection	
Int Delay, s/veh	2.3

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	75	30	5	230	230	75
Future Vol, veh/h	75	30	5	230	230	75
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	-	-	-	-	-
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	8	8	2
Mvmt Flow	82	33	5	253	253	82

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	557	294	335	0	-	0
Stage 1	294	-	-	-	-	-
Stage 2	263	-	-	-	-	-
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	491	745	1224	-	-	-
Stage 1	756	-	-	-	-	-
Stage 2	781	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	489	745	1224	-	-	-
Mov Cap-2 Maneuver	489	-	-	-	-	-
Stage 1	752	-	-	-	-	-
Stage 2	781	-	-	-	-	-

Approach	SB	SE	NW
HCM Control Delay, s	13.4	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SBLn1
Capacity (veh/h)	-	-	1224	-	542
HCM Lane V/C Ratio	-	-	0.004	-	0.213
HCM Control Delay (s)	-	-	8	0	13.4
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0	-	0.8

Intersection	
Int Delay, s/veh	135.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	525	200	160	430	190	170
Future Vol, veh/h	525	200	160	430	190	170
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	553	211	168	453	200	179

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	764	0	1448	659
Stage 1	-	-	-	-	659	-
Stage 2	-	-	-	-	789	-
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	-	-	849	-	~ 145	464
Stage 1	-	-	-	-	515	-
Stage 2	-	-	-	-	448	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	849	-	~ 107	464
Mov Cap-2 Maneuver	-	-	-	-	~ 107	-
Stage 1	-	-	-	-	515	-
Stage 2	-	-	-	-	330	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.8	$ 627.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	168	-	-	849	-
HCM Lane V/C Ratio	2.256	-	-	0.198	-
HCM Control Delay (s)	$ 627.6	-	-	10.3	0
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	31	-	-	0.7	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Intersection Delay, s/veh	238.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Vol, veh/h	40	345	305	45	320	60	40	225	40	225	220	25
Future Vol, veh/h	40	345	305	45	320	60	40	225	40	225	220	25
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	8	2	2	8	2
Mvmt Flow	42	363	321	47	337	63	42	225	42	237	232	26
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	1

Approach	EB	WB	SE	NW
Opposing Approach	WB	EB	NW	SE
Opposing Lanes	2	1	2	1
Conflicting Approach Left	SE	NW	WB	EB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NW	SE	EB	WB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	456.9	82.8	68.2	165.8
HCM LOS	F	F	F	F

Lane	NWLn1	NWLn2	EBLn1	WBLn1	WBLn2	SELn1
Vol Left, %	51%	0%	6%	12%	0%	13%
Vol Thru, %	49%	0%	50%	88%	0%	74%
Vol Right, %	0%	100%	44%	0%	100%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	445	25	690	365	60	305
LT Vol	225	0	40	45	0	40
Through Vol	220	0	345	320	0	225
RT Vol	0	25	305	0	60	40
Lane Flow Rate	468	26	726	384	63	309
Geometry Grp	7	7	6	7	7	6
Degree of Util (X)	1.261	0.065	1.939	1.014	0.153	0.874
Departure Headway (Hd)	11.9	10.995	10.578	12.443	11.629	14.023
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	309	328	349	296	311	263
Service Time	9.6	8.695	8.578	10.143	9.329	12.023
HCM Lane V/C Ratio	1.515	0.079	2.08	1.297	0.203	1.175
HCM Control Delay	174.3	14.5	456.9	93.7	16.4	68.2
HCM Lane LOS	F	B	F	F	C	F
HCM 95th-tile Q	17.9	0.2	45.4	10.7	0.5	7.4

Intersection	
Intersection Delay, s/veh	246.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	75	235	65	150	225	20	75	275	100	25	215	80
Future Vol, veh/h	75	235	65	150	225	20	75	275	100	25	215	80
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	103	322	89	205	308	27	103	377	137	34	295	110
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	221.7	257.1	329.4	145.9
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	20%	38%	8%
Vol Thru, %	61%	63%	57%	67%
Vol Right, %	22%	17%	5%	25%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	450	375	395	320
LT Vol	75	75	150	25
Through Vol	275	235	225	215
RT Vol	100	65	20	80
Lane Flow Rate	616	514	541	438
Geometry Grp	1	1	1	1
Degree of Util (X)	1.632	1.365	1.454	1.156
Departure Headway (Hd)	12.562	13.631	13.404	14.409
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	296	272	276	254
Service Time	10.562	11.631	11.404	12.409
HCM Lane V/C Ratio	2.081	1.89	1.96	1.724
HCM Control Delay	329.4	221.7	257.1	145.9
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	28.7	19.1	21.9	13.1

Intersection	
Intersection Delay, s/veh	18.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	110	255	25	45	255	45	40	140	35	25	85	65
Future Vol, veh/h	110	255	25	45	255	45	40	140	35	25	85	65
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	116	268	26	47	268	47	42	147	37	26	89	68
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	22	18.7	14.6	13.3
HCM LOS	C	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	28%	13%	14%
Vol Thru, %	65%	65%	74%	49%
Vol Right, %	16%	6%	13%	37%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	215	390	345	175
LT Vol	40	110	45	25
Through Vol	140	255	255	85
RT Vol	35	25	45	65
Lane Flow Rate	226	411	363	184
Geometry Grp	1	1	1	1
Degree of Util (X)	0.422	0.696	0.618	0.343
Departure Headway (Hd)	6.706	6.102	6.129	6.706
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	534	591	588	534
Service Time	4.775	4.159	4.189	4.781
HCM Lane V/C Ratio	0.423	0.695	0.617	0.345
HCM Control Delay	14.6	22	18.7	13.3
HCM Lane LOS	B	C	C	B
HCM 95th-tile Q	2.1	5.5	4.2	1.5

Intersection	
Intersection Delay, s/veh	16.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	155	5	105	5	5	1	40	220	5	0	330	145
Future Vol, veh/h	155	5	105	5	5	1	40	220	5	0	330	145
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	163	5	111	5	5	1	42	232	5	0	347	153
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	13.6	9.9	12.8	19.4
HCM LOS	B	A	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	58%	45%	0%
Vol Thru, %	83%	2%	45%	69%
Vol Right, %	2%	40%	9%	31%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	265	265	11	475
LT Vol	40	155	5	0
Through Vol	220	5	5	330
RT Vol	5	105	1	145
Lane Flow Rate	279	279	12	500
Geometry Grp	1	1	1	1
Degree of Util (X)	0.431	0.45	0.021	0.705
Departure Headway (Hd)	5.557	5.809	6.632	5.074
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	647	619	536	710
Service Time	3.609	3.862	4.718	3.117
HCM Lane V/C Ratio	0.431	0.451	0.022	0.704
HCM Control Delay	12.8	13.6	9.9	19.4
HCM Lane LOS	B	B	A	C
HCM 95th-tile Q	2.2	2.3	0.1	5.9

Lane Group	NBL	NBT	NBR	SBL	SBT	SET	SER	NWL	NWT
Lane Group Flow (vph)	247	376	288	53	447	424	253	235	395
v/c Ratio	1.07	0.70	0.47	0.39	1.22	1.03	0.49	0.85	0.49
Control Delay	112.5	33.2	12.1	40.3	149.6	81.9	10.3	58.7	15.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	112.5	33.2	12.1	40.3	149.6	81.9	10.3	58.7	15.6
Queue Length 50th (ft)	~124	159	40	23	~251	~197	21	103	110
Queue Length 95th (ft)	#237	#277	96	53	#389	#338	68	#199	169
Internal Link Dist (ft)		639			101	192			1578
Turn Bay Length (ft)			60	110			100	190	
Base Capacity (vph)	231	536	615	137	367	413	521	281	802
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.07	0.70	0.47	0.39	1.22	1.03	0.49	0.84	0.49

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	210	320	245	45	375	5	0	360	215	200	275	60
Future Volume (veh/h)	210	320	245	45	375	5	0	360	215	200	275	60
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	1737	1870	1870	1737	1737	0	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	247	376	0	53	441	6	0	424	253	235	324	71
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	11	2	2	11	11	0	8	2	2	8	8
Cap, veh/h	231	515		81	362	5	0	414	369	276	638	140
Arrive On Green	0.13	0.30	0.00	0.05	0.21	0.21	0.00	0.23	0.23	0.15	0.45	0.45
Sat Flow, veh/h	1781	1737	1585	1781	1710	23	0	1781	1585	1781	1415	310
Grp Volume(v), veh/h	247	376	0	53	0	447	0	424	253	235	0	395
Grp Sat Flow(s),veh/h/ln	1781	1737	1585	1781	0	1733	0	1781	1585	1781	0	1726
Q Serve(g_s), s	9.4	14.1	0.0	2.1	0.0	15.4	0.0	16.9	10.6	9.3	0.0	11.8
Cycle Q Clear(g_c), s	9.4	14.1	0.0	2.1	0.0	15.4	0.0	16.9	10.6	9.3	0.0	11.8
Prop In Lane	1.00		1.00	1.00		0.01	0.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	231	515		81	0	367	0	414	369	276	0	778
V/C Ratio(X)	1.07	0.73		0.66	0.00	1.22	0.00	1.02	0.69	0.85	0.00	0.51
Avail Cap(c_a), veh/h	231	515		137	0	367	0	414	369	280	0	782
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.6	23.0	0.0	34.1	0.0	28.6	0.0	27.9	25.4	29.9	0.0	14.2
Incr Delay (d2), s/veh	79.5	5.3	0.0	8.8	0.0	119.9	0.0	50.2	5.2	21.4	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	6.2	0.0	1.1	0.0	18.3	0.0	12.3	4.3	5.4	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	111.1	28.2	0.0	42.9	0.0	148.5	0.0	78.1	30.7	51.3	0.0	14.7
LnGrp LOS	F	C		D	A	F	A	F	C	D	A	B
Approach Vol, veh/h		623	A		500			677			630	
Approach Delay, s/veh		61.1			137.3			60.3			28.4	
Approach LOS		E			F			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	8
Phs Duration (G+Y+Rc), s	7.9	26.9	15.8	22.0	14.0	20.8	37.8
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	* 5.4	5.1
Max Green Setting (Gmax), s	5.6	18.4	11.4	16.9	9.4	* 15	32.9
Max Q Clear Time (g_c+I1), s	4.1	16.1	11.3	18.9	11.4	17.4	13.8
Green Ext Time (p_c), s	0.0	0.5	0.0	0.0	0.0	0.0	2.3

Intersection Summary	
HCM 6th Ctrl Delay	68.1
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	229.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	155	54	125	115	140	105	175	125	44	175	240
Future Vol, veh/h	30	155	54	125	115	140	105	175	125	44	175	240
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.96	0.69
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	225	78	181	167	203	152	254	181	64	182	348
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	77.1	234.4	274.3	270.1
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	26%	13%	33%	10%
Vol Thru, %	43%	65%	30%	38%
Vol Right, %	31%	23%	37%	52%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	405	239	380	459
LT Vol	105	30	125	44
Through Vol	175	155	115	175
RT Vol	125	54	140	240
Lane Flow Rate	587	346	551	594
Geometry Grp	1	1	1	1
Degree of Util (X)	1.506	0.916	1.41	1.497
Departure Headway (Hd)	12.076	14.207	12.038	11.933
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	305	260	308	309
Service Time	10.076	12.207	10.038	9.933
HCM Lane V/C Ratio	1.925	1.331	1.789	1.922
HCM Control Delay	274.3	77.1	234.4	270.1
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	25.5	8.1	22.4	25.4

Lane Group	EBT	EBR	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	195	409	11	293	793	951
v/c Ratio	0.67	0.68	0.03	1.00	0.39	0.75
Control Delay	37.0	11.8	0.1	86.4	6.5	20.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.0	11.8	0.1	86.4	6.5	20.2
Queue Length 50th (ft)	72	21	0	~138	74	162
Queue Length 95th (ft)	126	73	0	#253	91	195
Internal Link Dist (ft)	2546		191		2566	560
Turn Bay Length (ft)		100		160		
Base Capacity (vph)	346	651	438	293	2335	1552
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.63	0.03	1.00	0.34	0.61

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	0	335	7	0	2	240	650	0	0	665	115
Future Volume (veh/h)	160	0	335	7	0	2	240	650	0	0	665	115
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	1737	1737	1737	1737	1737
Adj Flow Rate, veh/h	195	0	409	9	0	2	293	793	0	0	811	140
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	11	11	11
Cap, veh/h	476	0	384	221	10	28	289	1980	0	0	1024	177
Arrive On Green	0.24	0.00	0.24	0.24	0.00	0.24	0.16	0.60	0.00	0.00	0.36	0.36
Sat Flow, veh/h	1494	0	1585	485	43	117	1781	3387	0	0	2901	486
Grp Volume(v), veh/h	195	0	409	11	0	0	293	793	0	0	476	475
Grp Sat Flow(s),veh/h/ln	1494	0	1585	645	0	0	1781	1650	0	0	1650	1650
Q Serve(g_s), s	0.0	0.0	15.4	0.1	0.0	0.0	10.3	8.0	0.0	0.0	16.4	16.4
Cycle Q Clear(g_c), s	6.7	0.0	15.4	6.8	0.0	0.0	10.3	8.0	0.0	0.0	16.4	16.4
Prop In Lane	1.00		1.00	0.82		0.18	1.00		0.00	0.00		0.29
Lane Grp Cap(c), veh/h	476	0	384	260	0	0	289	1980	0	0	601	600
V/C Ratio(X)	0.41	0.00	1.06	0.04	0.00	0.00	1.01	0.40	0.00	0.00	0.79	0.79
Avail Cap(c_a), veh/h	476	0	384	260	0	0	289	1980	0	0	769	769
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	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	20.8	0.0	24.1	18.6	0.0	0.0	26.6	6.7	0.0	0.0	18.1	18.1
Incr Delay (d2), s/veh	0.6	0.0	64.0	0.1	0.0	0.0	56.6	0.1	0.0	0.0	4.4	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	12.1	0.1	0.0	0.0	8.7	2.2	0.0	0.0	6.3	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.3	0.0	88.0	18.7	0.0	0.0	83.3	6.8	0.0	0.0	22.4	22.4
LnGrp LOS	C	A	F	B	A	A	F	A	A	A	C	C
Approach Vol, veh/h		604			11			1086			951	
Approach Delay, s/veh		66.5			18.7			27.4			22.4	
Approach LOS		E			B			C			C	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		43.5		20.0	15.0	28.5		20.0				
Change Period (Y+Rc), s		5.4		4.6	* 4.7	5.4		4.6				
Max Green Setting (Gmax), s		29.6		15.4	* 10	29.6		5.4				
Max Q Clear Time (g_c+I1), s		10.0		17.4	12.3	18.4		8.8				
Green Ext Time (p_c), s		5.6		0.0	0.0	4.8		0.0				

Intersection Summary			
HCM 6th Ctrl Delay			34.5
HCM 6th LOS			C

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	SBL	SEL	SET	NWT	NWR
Lane Group Flow (vph)	232	83	673	506	42
v/c Ratio	0.52	0.27	0.68	0.69	0.06
Control Delay	15.7	24.8	11.1	20.0	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	15.7	24.8	11.1	20.0	5.0
Queue Length 50th (ft)	33	24	99	130	0
Queue Length 95th (ft)	83	62	210	248	15
Internal Link Dist (ft)	2230		1578	1622	
Turn Bay Length (ft)		435			400
Base Capacity (vph)	684	414	1411	1036	950
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.34	0.20	0.48	0.49	0.04

Intersection Summary

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (veh/h)	75	120	70	565	425	35
Future Volume (veh/h)	75	120	70	565	425	35
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1870	1781	1781	1870
Adj Flow Rate, veh/h	89	143	83	673	506	42
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	2	8	8	2
Cap, veh/h	113	182	206	1062	645	574
Arrive On Green	0.18	0.18	0.12	0.60	0.36	0.36
Sat Flow, veh/h	632	1016	1781	1781	1781	1585
Grp Volume(v), veh/h	233	0	83	673	506	42
Grp Sat Flow(s),veh/h/ln	1656	0	1781	1781	1781	1585
Q Serve(g_s), s	5.8	0.0	1.9	10.6	10.9	0.7
Cycle Q Clear(g_c), s	5.8	0.0	1.9	10.6	10.9	0.7
Prop In Lane	0.38	0.61	1.00			1.00
Lane Grp Cap(c), veh/h	296	0	206	1062	645	574
V/C Ratio(X)	0.79	0.00	0.40	0.63	0.78	0.07
Avail Cap(c_a), veh/h	591	0	409	1062	1028	915
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	16.9	0.0	17.7	5.7	12.3	9.0
Incr Delay (d2), s/veh	4.6	0.0	1.3	1.2	2.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.7	2.5	3.8	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.5	0.0	19.0	6.9	14.4	9.1
LnGrp LOS	C	A	B	A	B	A
Approach Vol, veh/h	233			756	548	
Approach Delay, s/veh	21.5			8.2	14.0	
Approach LOS	C			A	B	

Timer - Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	10.1	20.7				30.8		12.3
Change Period (Y+Rc), s	5.1	5.1				5.1		4.6
Max Green Setting (Gmax), s	9.9	24.9				24.9		15.4
Max Q Clear Time (g_c+I1), s	3.9	12.9				12.6		7.8
Green Ext Time (p_c), s	0.1	2.7				3.8		0.4

Intersection Summary		
HCM 6th Ctrl Delay		12.3
HCM 6th LOS		B

Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	3.7

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	70	40	25	620	420	35
Future Vol, veh/h	70	40	25	620	420	35
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	8	8	2
Mvmt Flow	81	47	29	721	488	41

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1288	509	529	0	-	0
Stage 1	509	-	-	-	-	-
Stage 2	779	-	-	-	-	-
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	181	564	1038	-	-	-
Stage 1	604	-	-	-	-	-
Stage 2	452	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	172	564	1038	-	-	-
Mov Cap-2 Maneuver	172	-	-	-	-	-
Stage 1	576	-	-	-	-	-
Stage 2	452	-	-	-	-	-

Approach	SB		SE		NW	
HCM Control Delay, s	38.6		0.3		0	
HCM LOS	E					

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SBLn1
Capacity (veh/h)	-	-	1038	-	230
HCM Lane V/C Ratio	-	-	0.028	-	0.556
HCM Control Delay (s)	-	-	8.6	0	38.6
HCM Lane LOS	-	-	A	A	E
HCM 95th %tile Q(veh)	-	-	0.1	-	3

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	469	339	191	945	185	1031
v/c Ratio	1.07	1.04	0.97	0.93	0.94	1.01
Control Delay	102.3	104.7	111.6	55.6	103.3	72.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	102.3	104.7	111.6	55.6	103.3	72.3
Queue Length 50th (ft)	~369	~263	150	368	144	~428
Queue Length 95th (ft)	#482	#378	#255	394	#242	#473
Internal Link Dist (ft)	615	635		1224		2566
Turn Bay Length (ft)			135		135	
Base Capacity (vph)	438	326	196	1016	197	1018
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.07	1.04	0.97	0.93	0.94	1.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	120	220	55	95	125	155	685	80	150	780	55
Future Volume (veh/h)	40	120	220	55	95	125	155	685	80	150	780	55
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	1737	1737	1870	1737	1737
Adj Flow Rate, veh/h	49	148	272	68	117	154	191	846	99	185	963	68
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	2	11	11
Cap, veh/h	41	124	227	60	103	136	197	930	109	199	980	69
Arrive On Green	0.23	0.23	0.23	0.17	0.17	0.17	0.11	0.31	0.31	0.11	0.31	0.31
Sat Flow, veh/h	176	532	978	344	591	778	1781	2976	348	1781	3127	221
Grp Volume(v), veh/h	469	0	0	339	0	0	191	469	476	185	508	523
Grp Sat Flow(s),veh/h/ln	1686	0	0	1713	0	0	1781	1650	1674	1781	1650	1697
Q Serve(g_s), s	27.9	0.0	0.0	20.9	0.0	0.0	12.8	32.8	32.8	12.4	36.7	36.7
Cycle Q Clear(g_c), s	27.9	0.0	0.0	20.9	0.0	0.0	12.8	32.8	32.8	12.4	36.7	36.7
Prop In Lane	0.10		0.58	0.20		0.45	1.00		0.21	1.00		0.13
Lane Grp Cap(c), veh/h	392	0	0	298	0	0	197	516	523	199	517	532
V/C Ratio(X)	1.20	0.00	0.00	1.14	0.00	0.00	0.97	0.91	0.91	0.93	0.98	0.98
Avail Cap(c_a), veh/h	392	0	0	298	0	0	197	516	523	199	517	532
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.1	0.0	0.0	49.6	0.0	0.0	53.1	39.6	39.6	52.8	40.9	40.9
Incr Delay (d2), s/veh	110.8	0.0	0.0	94.1	0.0	0.0	54.5	20.2	19.9	44.4	35.1	34.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.6	0.0	0.0	16.7	0.0	0.0	8.7	16.0	16.2	8.0	19.7	20.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	156.9	0.0	0.0	143.6	0.0	0.0	107.6	59.8	59.6	97.3	75.9	75.4
LnGrp LOS	F	A	A	F	A	A	F	E	E	F	E	E
Approach Vol, veh/h		469			339			1136			1216	
Approach Delay, s/veh		156.9			143.6			67.7			79.0	
Approach LOS		F			F			E			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.1	42.9		33.0	18.0	43.0		26.0				
Change Period (Y+Rc), s	* 4.7	5.4		5.1	* 4.7	5.4		5.1				
Max Green Setting (Gmax), s	* 13	37.5		27.9	* 13	37.6		20.9				
Max Q Clear Time (g_c+I1), s	14.4	34.8		29.9	14.8	38.7		22.9				
Green Ext Time (p_c), s	0.0	1.6		0.0	0.0	0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			93.4									
HCM 6th LOS			F									

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	NBT	SBT	SEL	SET	NWL	NWT
Lane Group Flow (vph)	663	468	5	700	200	374
v/c Ratio	1.41	1.74	0.06	1.44	1.35	0.54
Control Delay	228.0	376.7	46.8	238.0	233.0	27.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	228.0	376.7	46.8	238.0	233.0	27.7
Queue Length 50th (ft)	~557	~445	3	~608	~168	172
Queue Length 95th (ft)	#777	#639	15	#833	#309	311
Internal Link Dist (ft)	479	5386		3214		2844
Turn Bay Length (ft)			220		220	
Base Capacity (vph)	469	269	88	487	148	692
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.41	1.74	0.06	1.44	1.35	0.54

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	135	215	280	135	305	5	5	530	135	190	335	20
Future Volume (veh/h)	135	215	280	135	305	5	5	530	135	190	335	20
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	1781	1781	1870	1781	1781
Adj Flow Rate, veh/h	142	226	295	142	321	5	5	558	142	200	353	21
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	8	8	2	8	8
Cap, veh/h	93	148	194	82	185	3	12	380	97	150	590	35
Arrive On Green	0.25	0.25	0.25	0.15	0.15	0.15	0.01	0.28	0.28	0.08	0.35	0.35
Sat Flow, veh/h	367	584	763	558	1261	20	1781	1370	349	1781	1665	99
Grp Volume(v), veh/h	663	0	0	468	0	0	5	0	700	200	0	374
Grp Sat Flow(s),veh/h/ln	1715	0	0	1839	0	0	1781	0	1719	1781	0	1764
Q Serve(g_s), s	25.4	0.0	0.0	14.7	0.0	0.0	0.3	0.0	27.7	8.4	0.0	17.4
Cycle Q Clear(g_c), s	25.4	0.0	0.0	14.7	0.0	0.0	0.3	0.0	27.7	8.4	0.0	17.4
Prop In Lane	0.21		0.44	0.30		0.01	1.00		0.20	1.00		0.06
Lane Grp Cap(c), veh/h	436	0	0	270	0	0	12	0	476	150	0	625
V/C Ratio(X)	1.52	0.00	0.00	1.73	0.00	0.00	0.43	0.00	1.47	1.34	0.00	0.60
Avail Cap(c_a), veh/h	436	0	0	270	0	0	89	0	476	150	0	625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.3	0.0	0.0	42.7	0.0	0.0	49.5	0.0	36.2	45.8	0.0	26.4
Incr Delay (d2), s/veh	246.5	0.0	0.0	344.1	0.0	0.0	23.5	0.0	222.9	189.6	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	40.0	0.0	0.0	32.1	0.0	0.0	0.2	0.0	40.1	11.4	0.0	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	283.8	0.0	0.0	386.8	0.0	0.0	73.0	0.0	259.0	235.4	0.0	28.0
LnGrp LOS	F	A	A	F	A	A	E	A	F	F	A	C
Approach Vol, veh/h		663			468			705			574	
Approach Delay, s/veh		283.8			386.8			257.7			100.3	
Approach LOS		F			F			F			F	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.8	13.8	34.2		21.2	6.0	42.0				
Change Period (Y+Rc), s		5.4	5.4	6.5		6.5	5.4	6.5				
Max Green Setting (Gmax), s		25.4	8.4	27.7		14.7	5.0	31.1				
Max Q Clear Time (g_c+I1), s		27.4	10.4	29.7		16.7	2.3	19.4				
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	1.5				
Intersection Summary												
HCM 6th Ctrl Delay			252.5									
HCM 6th LOS			F									

Intersection						
Int Delay, s/veh	2.9					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	95	82	429	92	38	535
Future Vol, veh/h	95	82	429	92	38	535
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	-	-	-	10	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	11	2	2	11
Mvmt Flow	114	99	517	111	46	645

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	988	314	0	0	628	0
Stage 1	573	-	-	-	-	-
Stage 2	415	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	244	682	-	-	950	-
Stage 1	527	-	-	-	-	-
Stage 2	635	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	232	682	-	-	950	-
Mov Cap-2 Maneuver	362	-	-	-	-	-
Stage 1	527	-	-	-	-	-
Stage 2	605	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.2	0	0.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	463	950	-
HCM Lane V/C Ratio	-	-	0.461	0.048	-
HCM Control Delay (s)	-	-	19.2	9	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	2.4	0.2	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	456	589	614	848	924	646
v/c Ratio	1.04	0.37	1.06	0.40	0.99	0.78
Control Delay	94.5	0.7	92.3	9.3	66.6	14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	94.5	0.7	92.3	9.3	66.6	14.9
Queue Length 50th (ft)	~348	0	~479	131	341	69
Queue Length 95th (ft)	#441	0	#560	140	#378	120
Internal Link Dist (ft)	1555			480	2580	
Turn Bay Length (ft)			340			280
Base Capacity (vph)	439	1583	577	2146	934	826
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.04	0.37	1.06	0.40	0.99	0.78

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	360	465	485	670	730	510
Future Volume (veh/h)	360	465	485	670	730	510
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1737	1737	1870
Adj Flow Rate, veh/h	456	0	614	848	924	519
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	11	11	2
Cap, veh/h	442		581	2178	948	455
Arrive On Green	0.25	0.00	0.33	0.66	0.29	0.29
Sat Flow, veh/h	1781	1585	1781	3387	3387	1585
Grp Volume(v), veh/h	456	0	614	848	924	519
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1650	1650	1585
Q Serve(g_s), s	27.3	0.0	35.9	12.9	30.5	31.6
Cycle Q Clear(g_c), s	27.3	0.0	35.9	12.9	30.5	31.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	442		581	2178	948	455
V/C Ratio(X)	1.03		1.06	0.39	0.97	1.14
Avail Cap(c_a), veh/h	442		581	2178	948	455
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	41.3	0.0	37.1	8.6	38.8	39.2
Incr Delay (d2), s/veh	51.1	0.0	53.0	0.1	23.1	86.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.1	0.0	23.4	4.1	14.9	22.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	92.5	0.0	90.1	8.7	61.9	125.6
LnGrp LOS	F		F	A	E	F
Approach Vol, veh/h	456	A		1462	1443	
Approach Delay, s/veh	92.5			42.9	84.8	
Approach LOS	F			D	F	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		78.0		32.0	41.0	37.0
Change Period (Y+Rc), s		5.4		* 4.7	5.1	5.4
Max Green Setting (Gmax), s		72.6		* 27	35.9	31.6
Max Q Clear Time (g_c+I1), s		14.9		29.3	37.9	33.6
Green Ext Time (p_c), s		6.8		0.0	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			67.6			
HCM 6th LOS			E			

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	200	389	95	753	126	537	74	505	652
v/c Ratio	0.93	0.53	0.61	0.98	0.62	0.94	0.15	1.01	0.53
Control Delay	83.0	30.7	51.6	45.1	46.1	57.9	0.7	71.4	20.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.0	30.7	51.6	45.1	46.1	57.9	0.7	71.4	20.5
Queue Length 50th (ft)	94	89	43	94	56	131	0	~236	124
Queue Length 95th (ft)	#215	133	#105	#211	#120	#225	0	#428	177
Internal Link Dist (ft)		1219		1008		1659			690
Turn Bay Length (ft)	400		215		225		225	250	
Base Capacity (vph)	214	730	158	772	214	572	486	502	1230
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.53	0.60	0.98	0.59	0.94	0.15	1.01	0.53

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	370	0	90	305	410	120	510	70	480	535	85
Future Volume (veh/h)	190	370	0	90	305	410	120	510	70	480	535	85
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	1737	1870	1870	1737	1737
Adj Flow Rate, veh/h	200	389	0	95	321	432	126	537	74	505	563	89
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	11	2	2	11	11
Cap, veh/h	216	700	0	122	246	220	160	581	279	506	1058	167
Arrive On Green	0.12	0.20	0.00	0.07	0.14	0.14	0.09	0.18	0.18	0.28	0.37	0.37
Sat Flow, veh/h	1781	3647	0	1781	1777	1585	1781	3300	1585	1781	2856	450
Grp Volume(v), veh/h	200	389	0	95	321	432	126	537	74	505	325	327
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1777	1585	1781	1650	1585	1781	1650	1656
Q Serve(g_s), s	8.3	7.4	0.0	3.9	10.4	10.4	5.2	12.0	3.0	21.2	11.6	11.6
Cycle Q Clear(g_c), s	8.3	7.4	0.0	3.9	10.4	10.4	5.2	12.0	3.0	21.2	11.6	11.6
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	216	700	0	122	246	220	160	581	279	506	611	613
V/C Ratio(X)	0.93	0.56	0.00	0.78	1.30	1.97	0.79	0.92	0.27	1.00	0.53	0.53
Avail Cap(c_a), veh/h	216	700	0	159	246	220	216	581	279	506	611	613
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.6	27.2	0.0	34.4	32.3	32.3	33.4	30.4	26.7	26.8	18.5	18.5
Incr Delay (d2), s/veh	41.0	1.0	0.0	16.5	162.6	450.5	12.9	20.8	0.5	39.5	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	3.0	0.0	2.2	15.3	31.2	2.7	6.1	1.1	13.7	4.1	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.7	28.1	0.0	50.9	194.9	482.8	46.3	51.2	27.2	66.4	19.4	19.4
LnGrp LOS	E	C	A	D	F	F	D	D	C	E	B	B
Approach Vol, veh/h		589			848			737			1157	
Approach Delay, s/veh		43.6			325.5			47.9			39.9	
Approach LOS		D			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.4	18.6	9.8	20.2	11.8	33.2	14.2	15.8
Change Period (Y+Rc), s	5.1	5.4	* 4.7	5.4	5.1	5.4	5.1	5.4
Max Green Setting (Gmax), s	21.3	13.2	* 6.7	13.2	9.1	25.4	9.1	10.4
Max Q Clear Time (g_c+I1), s	23.2	14.0	5.9	9.4	7.2	13.6	10.3	12.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.8	0.0	3.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	115.0
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	156	56	116	122	11	628	89	711
v/c Ratio	0.41	0.11	0.32	0.25	0.04	0.45	0.29	0.40
Control Delay	28.9	0.4	26.5	1.9	25.8	17.6	28.0	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.9	0.4	26.5	1.9	25.8	17.6	28.0	12.7
Queue Length 50th (ft)	53	0	38	0	4	98	30	83
Queue Length 95th (ft)	#122	0	83	8	17	148	#71	170
Internal Link Dist (ft)	816		797			1484		1659
Turn Bay Length (ft)		150			75		250	
Base Capacity (vph)	456	559	450	554	270	1445	334	1761
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.10	0.26	0.22	0.04	0.43	0.27	0.40

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	60	50	65	40	110	10	505	60	80	605	35
Future Volume (veh/h)	80	60	50	65	40	110	10	505	60	80	605	35
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	1737	1737	1870	1737	1737
Adj Flow Rate, veh/h	89	67	56	72	44	122	11	561	67	89	672	39
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	2	11	11
Cap, veh/h	127	96	194	132	81	186	25	789	94	131	1031	60
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.01	0.27	0.27	0.07	0.33	0.33
Sat Flow, veh/h	1037	781	1585	1126	688	1585	1781	2970	354	1781	3170	184
Grp Volume(v), veh/h	156	0	56	116	0	122	11	311	317	89	350	361
Grp Sat Flow(s),veh/h/ln	1818	0	1585	1814	0	1585	1781	1650	1673	1781	1650	1704
Q Serve(g_s), s	3.8	0.0	1.5	2.8	0.0	3.4	0.3	7.9	7.9	2.2	8.4	8.4
Cycle Q Clear(g_c), s	3.8	0.0	1.5	2.8	0.0	3.4	0.3	7.9	7.9	2.2	8.4	8.4
Prop In Lane	0.57		1.00	0.62		1.00	1.00		0.21	1.00		0.11
Lane Grp Cap(c), veh/h	223	0	194	212	0	186	25	439	445	131	537	554
V/C Ratio(X)	0.70	0.00	0.29	0.55	0.00	0.66	0.43	0.71	0.71	0.68	0.65	0.65
Avail Cap(c_a), veh/h	331	0	289	327	0	285	197	641	650	244	673	695
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.4	0.0	18.4	19.2	0.0	19.5	22.5	15.3	15.3	20.8	13.3	13.3
Incr Delay (d2), s/veh	4.0	0.0	0.8	2.2	0.0	3.9	11.2	2.1	2.1	6.0	1.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.5	1.2	0.0	1.3	0.2	2.7	2.7	1.0	2.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.4	0.0	19.2	21.4	0.0	23.4	33.7	17.4	17.5	26.8	14.8	14.8
LnGrp LOS	C	A	B	C	A	C	C	B	B	C	B	B
Approach Vol, veh/h		212			238			639			800	
Approach Delay, s/veh		22.3			22.4			17.7			16.2	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	17.6		10.2	5.4	20.4		10.1				
Change Period (Y+Rc), s	* 4.7	* 5.4		4.6	* 4.7	5.4		4.7				
Max Green Setting (Gmax), s	* 6.3	* 18		8.4	* 5.1	18.8		8.3				
Max Q Clear Time (g_c+I1), s	4.2	9.9		5.8	2.3	10.4		5.4				
Green Ext Time (p_c), s	0.0	2.3		0.2	0.0	2.7		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			18.2									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	33.8
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	185	0	110	2	1	1	165	350	5	0	605	85
Future Vol, veh/h	185	0	110	2	1	1	165	350	5	0	605	85
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2	2	11	2	2	11	2
Mvmt Flow	208	0	124	2	1	1	185	393	6	0	680	96
Number of Lanes	1	1	0	0	1	0	1	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	3	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	1	2
HCM Control Delay	19.5	13.3	19.3	50.9
HCM LOS	C	B	C	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	50%	0%	0%
Vol Thru, %	0%	100%	96%	0%	0%	25%	100%	70%
Vol Right, %	0%	0%	4%	0%	100%	25%	0%	30%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	165	233	122	185	110	4	403	287
LT Vol	165	0	0	185	0	2	0	0
Through Vol	0	233	117	0	0	1	403	202
RT Vol	0	0	5	0	110	1	0	85
Lane Flow Rate	185	262	137	208	124	4	453	322
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.443	0.6	0.306	0.54	0.279	0.013	0.996	0.675
Departure Headway (Hd)	8.593	8.237	8.051	9.355	8.127	10.463	7.911	7.541
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	419	438	446	385	440	344	458	477
Service Time	6.358	6.002	5.815	7.133	5.905	8.163	5.675	5.305
HCM Lane V/C Ratio	0.442	0.598	0.307	0.54	0.282	0.012	0.989	0.675
HCM Control Delay	18.1	22.7	14.4	22.7	14	13.3	69.6	24.7
HCM Lane LOS	C	C	B	C	B	B	F	C
HCM 95th-tile Q	2.2	3.8	1.3	3.1	1.1	0	12.9	5

Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	76	337	76	233	634	512	221	430	157
v/c Ratio	0.50	0.88	0.21	0.91	0.76	0.82	0.50	1.01	0.28
Control Delay	39.5	53.0	1.4	66.5	31.7	32.3	24.0	72.7	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.5	53.0	1.4	66.5	31.7	32.3	24.0	72.7	2.8
Queue Length 50th (ft)	27	64	0	84	~125	75	69	~158	0
Queue Length 95th (ft)	#67	#122	0	#186	#204	#134	120	#299	16
Internal Link Dist (ft)		1872			1484	348		628	
Turn Bay Length (ft)	250		80	130			225		
Base Capacity (vph)	151	384	358	257	829	634	441	426	555
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.88	0.21	0.91	0.76	0.81	0.50	1.01	0.28

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	290	65	200	415	130	30	275	135	190	370	135
Future Volume (veh/h)	65	290	65	200	415	130	30	275	135	190	370	135
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	1737	1737	1737	1870	1737	1870
Adj Flow Rate, veh/h	76	337	0	233	483	151	35	320	0	221	430	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	11	11	11	2	11	2
Cap, veh/h	108	394		264	531	165	47	448		453	442	
Arrive On Green	0.06	0.11	0.00	0.15	0.20	0.20	0.15	0.15	0.00	0.25	0.25	0.00
Sat Flow, veh/h	1781	3554	1585	1781	2669	829	317	3141	0	1781	1737	1585
Grp Volume(v), veh/h	76	337	0	233	321	313	190	165	0	221	430	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1721	1721	1650	0	1781	1737	1585
Q Serve(g_s), s	2.5	5.5	0.0	7.5	10.3	10.5	6.2	5.6	0.0	6.2	14.4	0.0
Cycle Q Clear(g_c), s	2.5	5.5	0.0	7.5	10.3	10.5	6.2	5.6	0.0	6.2	14.4	0.0
Prop In Lane	1.00		1.00	1.00		0.48	0.18		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	108	394		264	353	342	253	242		453	442	
V/C Ratio(X)	0.70	0.85		0.88	0.91	0.92	0.75	0.68		0.49	0.97	
Avail Cap(c_a), veh/h	155	394		264	353	342	303	290		453	442	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.0	25.6	0.0	24.4	22.9	23.0	24.0	23.7	0.0	18.6	21.7	0.0
Incr Delay (d2), s/veh	8.1	16.6	0.0	27.2	26.2	28.4	8.4	5.0	0.0	0.8	35.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.0	0.0	4.8	6.4	6.4	2.9	2.4	0.0	2.4	9.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.1	42.2	0.0	51.6	49.1	51.4	32.3	28.7	0.0	19.4	57.5	0.0
LnGrp LOS	D	D		D	D	D	C	C		B	E	
Approach Vol, veh/h		413	A		867			355	A		651	A
Approach Delay, s/veh		40.9			50.6			30.6			44.6	
Approach LOS		D			D			C			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		13.3	13.4	11.9		20.0	8.2	17.1				
Change Period (Y+Rc), s		* 4.7	* 4.7	* 5.4		5.1	* 4.7	5.4				
Max Green Setting (Gmax), s		* 10	* 8.7	* 6.5		14.9	* 5.1	9.8				
Max Q Clear Time (g_c+I1), s		8.2	9.5	7.5		16.4	4.5	12.5				
Green Ext Time (p_c), s		0.4	0.0	0.0		0.0	0.0	0.0				

Intersection Summary		
HCM 6th Ctrl Delay		44.0
HCM 6th LOS		D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	168	197	4	568	531	168
v/c Ratio	0.96	0.54	0.01	0.70	0.79	0.25
Control Delay	91.7	10.7	0.0	23.5	25.0	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	91.7	10.7	0.0	23.5	25.0	3.5
Queue Length 50th (ft)	~59	1	0	88	143	0
Queue Length 95th (ft)	#161	50	0	134	#279	29
Internal Link Dist (ft)		804	608	1106	348	
Turn Bay Length (ft)	100					275
Base Capacity (vph)	175	368	269	907	783	762
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.54	0.01	0.63	0.68	0.22

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	2	185	3	0	1	255	280	5	5	500	160
Future Volume (veh/h)	160	2	185	3	0	1	255	280	5	5	500	160
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	168	2	195	3	0	1	268	295	5	5	526	168
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	358	2	208	142	19	9	363	439	7	6	647	554
Arrive On Green	0.13	0.13	0.13	0.13	0.00	0.13	0.22	0.22	0.22	0.35	0.35	0.35
Sat Flow, veh/h	1416	16	1571	69	140	70	1639	1980	34	18	1852	1585
Grp Volume(v), veh/h	168	0	197	4	0	0	292	0	276	531	0	168
Grp Sat Flow(s),veh/h/ln	1416	0	1588	279	0	0	1788	0	1864	1869	0	1585
Q Serve(g_s), s	0.0	0.0	5.8	0.0	0.0	0.0	7.2	0.0	6.4	12.3	0.0	3.7
Cycle Q Clear(g_c), s	5.0	0.0	5.8	5.9	0.0	0.0	7.2	0.0	6.4	12.3	0.0	3.7
Prop In Lane	1.00		0.99	0.75		0.25	0.92		0.02	0.01		1.00
Lane Grp Cap(c), veh/h	358	0	210	169	0	0	396	0	413	653	0	554
V/C Ratio(X)	0.47	0.00	0.94	0.02	0.00	0.00	0.74	0.00	0.67	0.81	0.00	0.30
Avail Cap(c_a), veh/h	358	0	210	169	0	0	500	0	522	838	0	710
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	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.0	0.0	20.4	18.2	0.0	0.0	17.2	0.0	16.9	14.1	0.0	11.3
Incr Delay (d2), s/veh	1.0	0.0	44.4	0.1	0.0	0.0	4.3	0.0	2.2	4.8	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	4.5	0.0	0.0	0.0	3.1	0.0	2.7	5.1	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.0	0.0	64.8	18.3	0.0	0.0	21.5	0.0	19.1	18.9	0.0	11.6
LnGrp LOS	C	A	E	B	A	A	C	A	B	B	A	B
Approach Vol, veh/h		365			4			568			699	
Approach Delay, s/veh		44.7			18.3			20.4			17.1	
Approach LOS		D			B			C			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		15.2		11.0		21.3		11.0				
Change Period (Y+Rc), s		* 4.7		* 4.7		4.7		* 4.7				
Max Green Setting (Gmax), s		* 13		* 6.3		21.3		* 6.3				
Max Q Clear Time (g_c+I1), s		9.2		7.8		14.3		7.9				
Green Ext Time (p_c), s		1.3		0.0		2.3		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		24.4
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	179	263	11	53	42	184	405	58	311	116
v/c Ratio	0.57	0.26	0.06	0.21	0.10	0.65	0.28	0.15	0.62	0.19
Control Delay	33.2	6.6	28.9	27.1	0.5	40.9	14.7	27.4	25.1	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.2	6.6	28.9	27.1	0.5	40.9	14.7	27.4	25.1	0.7
Queue Length 50th (ft)	60	7	4	18	0	65	60	10	101	0
Queue Length 95th (ft)	#151	40	18	49	0	#180	98	27	181	0
Internal Link Dist (ft)		676		1147			740		1106	
Turn Bay Length (ft)	210		80			190		195		100
Base Capacity (vph)	349	1281	179	424	550	281	1555	414	724	769
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.21	0.06	0.13	0.08	0.65	0.26	0.14	0.43	0.15

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	65	185	10	50	40	175	365	20	55	295	110
Future Volume (veh/h)	170	65	185	10	50	40	175	365	20	55	295	110
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	179	68	195	11	53	42	184	384	21	58	311	116
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	230	390	348	25	195	166	234	1048	57	195	432	366
Arrive On Green	0.13	0.22	0.22	0.01	0.10	0.10	0.13	0.31	0.31	0.06	0.23	0.23
Sat Flow, veh/h	1781	1777	1585	1781	1870	1585	1781	3427	187	3456	1870	1585
Grp Volume(v), veh/h	179	68	195	11	53	42	184	199	206	58	311	116
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1870	1585	1781	1777	1837	1728	1870	1585
Q Serve(g_s), s	4.6	1.5	5.2	0.3	1.2	1.2	4.8	4.1	4.2	0.8	7.3	2.9
Cycle Q Clear(g_c), s	4.6	1.5	5.2	0.3	1.2	1.2	4.8	4.1	4.2	0.8	7.3	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	230	390	348	25	195	166	234	543	562	195	432	366
V/C Ratio(X)	0.78	0.17	0.56	0.43	0.27	0.25	0.79	0.37	0.37	0.30	0.72	0.32
Avail Cap(c_a), veh/h	386	647	577	199	469	397	311	834	862	458	799	677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	15.0	16.5	23.2	19.6	19.6	20.0	12.9	12.9	21.5	16.8	15.2
Incr Delay (d2), s/veh	5.6	0.2	1.4	11.3	0.7	0.8	9.4	0.4	0.4	0.8	2.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.5	1.8	0.2	0.5	0.4	2.4	1.5	1.5	0.3	3.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.6	15.3	17.9	34.5	20.3	20.4	29.4	13.3	13.3	22.4	19.1	15.6
LnGrp LOS	C	B	B	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		442			106			589			485	
Approach Delay, s/veh		20.6			21.8			18.3			18.7	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	19.2	5.4	15.5	10.9	15.7	10.8	10.1
Change Period (Y+Rc), s	* 4.7	* 4.7	* 4.7	* 5.1	* 4.7	* 4.7	* 4.7	5.1
Max Green Setting (Gmax), s	* 6.3	* 22	* 5.3	* 17	* 8.3	* 20	* 10	11.9
Max Q Clear Time (g_c+I1), s	2.8	6.2	2.3	7.2	6.8	9.3	6.6	3.2
Green Ext Time (p_c), s	0.0	2.1	0.0	1.1	0.1	1.7	0.2	0.2

Intersection Summary			
HCM 6th Ctrl Delay			19.3
HCM 6th LOS			B

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	NBT	SBL	SBT	SBR	SEL	SET	NWL	NWT
Lane Group Flow (vph)	805	26	200	68	268	773	11	374
v/c Ratio	0.81	0.15	0.62	0.18	0.77	0.59	0.09	0.75
Control Delay	33.2	35.6	43.3	1.0	45.2	21.5	37.0	36.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.2	35.6	43.3	1.0	45.2	21.5	37.0	36.5
Queue Length 50th (ft)	192	12	51	0	125	143	5	76
Queue Length 95th (ft)	260	36	#92	0	#229	245	21	#136
Internal Link Dist (ft)	790		516			3919		2409
Turn Bay Length (ft)		150		65	165		405	
Base Capacity (vph)	1088	174	328	390	397	1310	122	524
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.15	0.61	0.17	0.68	0.59	0.09	0.71

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	135	605	25	25	190	65	255	595	140	10	245	110
Future Volume (veh/h)	135	605	25	25	190	65	255	595	140	10	245	110
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	1781	1870	1870	1870	1870	1870	1781	1781
Adj Flow Rate, veh/h	142	637	26	26	200	68	268	626	147	11	258	116
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	8	2	2	2	2	2	8	8
Cap, veh/h	173	821	35	158	301	141	317	879	206	25	329	144
Arrive On Green	0.28	0.28	0.28	0.09	0.09	0.09	0.18	0.31	0.31	0.01	0.14	0.14
Sat Flow, veh/h	621	2941	125	1781	3385	1585	1781	2857	670	1781	2292	1001
Grp Volume(v), veh/h	421	0	384	26	200	68	268	389	384	11	189	185
Grp Sat Flow(s),veh/h/ln	1839	0	1848	1781	1692	1585	1781	1777	1750	1781	1692	1601
Q Serve(g_s), s	14.9	0.0	13.2	0.9	4.0	2.8	10.1	13.5	13.5	0.4	7.5	7.8
Cycle Q Clear(g_c), s	14.9	0.0	13.2	0.9	4.0	2.8	10.1	13.5	13.5	0.4	7.5	7.8
Prop In Lane	0.34		0.07	1.00		1.00	1.00		0.38	1.00		0.63
Lane Grp Cap(c), veh/h	513	0	516	158	301	141	317	547	538	25	243	230
V/C Ratio(X)	0.82	0.00	0.75	0.16	0.66	0.48	0.85	0.71	0.71	0.45	0.78	0.81
Avail Cap(c_a), veh/h	619	0	622	190	360	169	433	572	564	133	260	246
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	23.4	0.0	22.8	29.3	30.7	30.2	27.7	21.3	21.4	34.0	28.7	28.9
Incr Delay (d2), s/veh	7.3	0.0	4.0	0.5	3.5	2.5	10.8	3.9	4.0	12.3	12.9	16.8
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	6.8	0.0	5.7	0.4	1.7	1.1	4.7	5.3	5.2	0.2	3.5	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.7	0.0	26.8	29.8	34.2	32.7	38.5	25.3	25.4	46.3	41.6	45.7
LnGrp LOS	C	A	C	C	C	C	D	C	C	D	D	D
Approach Vol, veh/h		805			294			1041			385	
Approach Delay, s/veh		28.8			33.5			28.7			43.7	
Approach LOS		C			C			C			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.8	6.1	27.9		10.8	17.5	16.5				
Change Period (Y+Rc), s		5.4	5.1	6.5		4.6	5.1	6.5				
Max Green Setting (Gmax), s		23.4	5.2	22.4		7.4	16.9	10.7				
Max Q Clear Time (g_c+I1), s		16.9	2.4	15.5		6.0	12.1	9.8				
Green Ext Time (p_c), s		2.6	0.0	2.4		0.2	0.3	0.2				

Intersection Summary		
HCM 6th Ctrl Delay		31.6
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	2.5

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	1	365	30	75	255	5	15	0	90	1	0	0
Future Vol, veh/h	1	365	30	75	255	5	15	0	90	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	1	397	33	82	277	5	16	0	98	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	282	0	0	430	0	0	860	862	414	909	876	280
Stage 1	-	-	-	-	-	-	416	416	-	444	444	-
Stage 2	-	-	-	-	-	-	444	446	-	465	432	-
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	1280	-	-	1129	-	-	276	293	638	256	287	759
Stage 1	-	-	-	-	-	-	614	592	-	593	575	-
Stage 2	-	-	-	-	-	-	593	574	-	578	582	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1280	-	-	1129	-	-	258	268	638	202	262	759
Mov Cap-2 Maneuver	-	-	-	-	-	-	258	268	-	202	262	-
Stage 1	-	-	-	-	-	-	613	591	-	592	526	-
Stage 2	-	-	-	-	-	-	542	525	-	489	581	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0	1.9	13.7	22.9
HCM LOS			B	C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	527	1129	-	-	1280	-	-	202
HCM Lane V/C Ratio	0.217	0.072	-	-	0.001	-	-	0.005
HCM Control Delay (s)	13.7	8.4	0	-	7.8	0	-	22.9
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.8	0.2	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	5	50	85	370	285	5
Future Vol, veh/h	5	50	85	370	285	5
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	-	-	-	-	-
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	8	8	2
Mvmt Flow	5	54	92	402	310	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	899	313	315	0	-	0
Stage 1	313	-	-	-	-	-
Stage 2	586	-	-	-	-	-
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	309	727	1245	-	-	-
Stage 1	741	-	-	-	-	-
Stage 2	556	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	280	727	1245	-	-	-
Mov Cap-2 Maneuver	280	-	-	-	-	-
Stage 1	671	-	-	-	-	-
Stage 2	556	-	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s	11.3	1.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWR	WBLn1	SEL	SET
Capacity (veh/h)	-	-	635	1245	-
HCM Lane V/C Ratio	-	-	0.094	0.074	-
HCM Control Delay (s)	-	-	11.3	8.1	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2	-

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	4	50	35	75	35	10	20	100	65	10	110	5
Future Vol, veh/h	4	50	35	75	35	10	20	100	65	10	110	5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	56	39	84	39	11	22	112	73	11	124	6
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.4	9.1	9.1	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	4%	62%	8%
Vol Thru, %	54%	56%	29%	88%
Vol Right, %	35%	39%	8%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	185	89	120	125
LT Vol	20	4	75	10
Through Vol	100	50	35	110
RT Vol	65	35	10	5
Lane Flow Rate	208	100	135	140
Geometry Grp	1	1	1	1
Degree of Util (X)	0.259	0.13	0.185	0.185
Departure Headway (Hd)	4.488	4.689	4.937	4.739
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	798	761	724	754
Service Time	2.528	2.741	2.987	2.784
HCM Lane V/C Ratio	0.261	0.131	0.186	0.186
HCM Control Delay	9.1	8.4	9.1	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1	0.4	0.7	0.7

Intersection	
Intersection Delay, s/veh	32.1
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	60	10	20	5	10	0	30	425	5	5	530	85
Future Vol, veh/h	60	10	20	5	10	0	30	425	5	5	530	85
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	11	22	6	11	0	33	472	6	6	589	94
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.4	10.5	21.7	43.4
HCM LOS	B	B	C	E

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	67%	33%	1%
Vol Thru, %	92%	11%	67%	85%
Vol Right, %	1%	22%	0%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	460	90	15	620
LT Vol	30	60	5	5
Through Vol	425	10	10	530
RT Vol	5	20	0	85
Lane Flow Rate	511	100	17	689
Geometry Grp	1	1	1	1
Degree of Util (X)	0.741	0.188	0.033	0.946
Departure Headway (Hd)	5.221	6.775	7.175	4.945
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	695	528	497	737
Service Time	3.254	4.832	5.248	2.975
HCM Lane V/C Ratio	0.735	0.189	0.034	0.935
HCM Control Delay	21.7	11.4	10.5	43.4
HCM Lane LOS	C	B	B	E
HCM 95th-tile Q	6.6	0.7	0.1	13.8

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	10	25	80	50	25	5	70	215	55	15	205	15
Future Vol, veh/h	10	25	80	50	25	5	70	215	55	15	205	15
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	27	88	55	27	5	77	236	60	16	225	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.5	9.8	12.5	10.8
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	9%	62%	6%
Vol Thru, %	63%	22%	31%	87%
Vol Right, %	16%	70%	6%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	340	115	80	235
LT Vol	70	10	50	15
Through Vol	215	25	25	205
RT Vol	55	80	5	15
Lane Flow Rate	374	126	88	258
Geometry Grp	1	1	1	1
Degree of Util (X)	0.494	0.185	0.142	0.361
Departure Headway (Hd)	4.862	5.258	5.811	5.026
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	747	684	619	720
Service Time	2.862	3.276	3.831	3.026
HCM Lane V/C Ratio	0.501	0.184	0.142	0.358
HCM Control Delay	12.5	9.5	9.8	10.8
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	2.8	0.7	0.5	1.6

Intersection	
Int Delay, s/veh	2.5

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	85	15	35	355	285	95
Future Vol, veh/h	85	15	35	355	285	95
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	-	-	-	-	-
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	8	8	2
Mvmt Flow	92	16	38	386	310	103

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	824	362	413	0	-	0
Stage 1	362	-	-	-	-	-
Stage 2	462	-	-	-	-	-
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	343	683	1146	-	-	-
Stage 1	704	-	-	-	-	-
Stage 2	634	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	329	683	1146	-	-	-
Mov Cap-2 Maneuver	329	-	-	-	-	-
Stage 1	674	-	-	-	-	-
Stage 2	634	-	-	-	-	-

Approach	SB	SE	NW
HCM Control Delay, s	19.4	0.7	0
HCM LOS	C		

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SBLn1
Capacity (veh/h)	-	-	1146	-	357
HCM Lane V/C Ratio	-	-	0.033	-	0.304
HCM Control Delay (s)	-	-	8.2	0	19.4
HCM Lane LOS	-	-	A	A	C
HCM 95th %tile Q(veh)	-	-	0.1	-	1.3

Intersection	
Int Delay, s/veh	158.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	540	160	140	560	170	135
Future Vol, veh/h	540	160	140	560	170	135
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	607	180	157	629	191	152

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	787	0	1640	697
Stage 1	-	-	-	-	697	-
Stage 2	-	-	-	-	943	-
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	-	-	832	-	~ 110	441
Stage 1	-	-	-	-	494	-
Stage 2	-	-	-	-	379	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	832	-	~ 78	441
Mov Cap-2 Maneuver	-	-	-	-	~ 78	-
Stage 1	-	-	-	-	494	-
Stage 2	-	-	-	-	269	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.1	$ 881.4
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	123	-	-	832	-
HCM Lane V/C Ratio	2.786	-	-	0.189	-
HCM Control Delay (s)	$ 881.4	-	-	10.3	0
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	31.5	-	-	0.7	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s   +: Computation Not Defined   *: All major volume in platoon

Intersection	
Intersection Delay, s/veh	336.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Vol, veh/h	45	360	270	25	315	45	55	320	55	355	305	25
Future Vol, veh/h	45	360	270	25	315	45	55	320	55	355	305	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	8	2	2	8	2
Mvmt Flow	49	391	293	27	342	49	60	348	60	386	332	27
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

Approach	EB	WB	SE	NW
Opposing Approach	WB	EB	NW	SE
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SE	NW	WB	EB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NW	SE	EB	WB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	452.9	138.6	118.6	469
HCM LOS	F	F	F	F

Lane	NWLn1	NWLn2	EBLn1	WBLn1	SELn1	SELn2
Vol Left, %	54%	0%	7%	6%	15%	0%
Vol Thru, %	46%	0%	53%	82%	85%	0%
Vol Right, %	0%	100%	40%	12%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	660	25	675	385	375	55
LT Vol	355	0	45	25	55	0
Through Vol	305	0	360	315	320	0
RT Vol	0	25	270	45	0	55
Lane Flow Rate	717	27	734	418	408	60
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	1.992	0.069	1.915	1.112	1.11	0.152
Departure Headway (Hd)	12.758	11.827	12.838	16.386	15.165	14.434
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	294	305	293	226	245	250
Service Time	10.458	9.527	10.838	14.386	12.865	12.134
HCM Lane V/C Ratio	2.439	0.089	2.505	1.85	1.665	0.24
HCM Control Delay	486.2	15.4	452.9	138.6	133.1	19.7
HCM Lane LOS	F	C	F	F	F	C
HCM 95th-tile Q	40.2	0.2	37.4	11.2	11.7	0.5

Intersection	
Intersection Delay, s/veh	179.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	100	270	95	145	220	35	85	265	140	25	280	90
Future Vol, veh/h	100	270	95	145	220	35	85	265	140	25	280	90
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	109	293	103	158	239	38	92	288	152	27	304	98
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	203.8	140.4	228.3	130.6
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	22%	36%	6%
Vol Thru, %	54%	58%	55%	71%
Vol Right, %	29%	20%	9%	23%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	490	465	400	395
LT Vol	85	100	145	25
Through Vol	265	270	220	280
RT Vol	140	95	35	90
Lane Flow Rate	533	505	435	429
Geometry Grp	1	1	1	1
Degree of Util (X)	1.4	1.337	1.162	1.134
Departure Headway (Hd)	11.482	11.738	12.448	12.401
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	320	313	296	296
Service Time	9.482	9.738	10.448	10.401
HCM Lane V/C Ratio	1.666	1.613	1.47	1.449
HCM Control Delay	228.3	203.8	140.4	130.6
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	22.9	20.4	14.5	13.8

Intersection	
Intersection Delay, s/veh	16.9
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	50	275	40	50	280	15	60	65	85	15	80	45
Future Vol, veh/h	50	275	40	50	280	15	60	65	85	15	80	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	54	299	43	54	304	16	65	71	92	16	87	49
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	19.2	18.3	13.8	12.3
HCM LOS	C	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	29%	14%	14%	11%
Vol Thru, %	31%	75%	81%	57%
Vol Right, %	40%	11%	4%	32%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	210	365	345	140
LT Vol	60	50	50	15
Through Vol	65	275	280	80
RT Vol	85	40	15	45
Lane Flow Rate	228	397	375	152
Geometry Grp	1	1	1	1
Degree of Util (X)	0.406	0.649	0.621	0.28
Departure Headway (Hd)	6.398	5.885	5.961	6.627
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	562	611	604	540
Service Time	4.452	3.932	4.009	4.69
HCM Lane V/C Ratio	0.406	0.65	0.621	0.281
HCM Control Delay	13.8	19.2	18.3	12.3
HCM Lane LOS	B	C	C	B
HCM 95th-tile Q	2	4.7	4.3	1.1

Intersection	
Intersection Delay, s/veh	41.8
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	155	0	45	1	2	0	55	305	1	0	350	200
Future Vol, veh/h	155	0	45	1	2	0	55	305	1	0	350	200
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	194	0	56	1	3	0	69	381	1	0	438	250
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	15.9	11.1	23.8	63.3
HCM LOS	C	B	C	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	78%	33%	0%
Vol Thru, %	84%	0%	67%	64%
Vol Right, %	0%	23%	0%	36%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	361	200	3	550
LT Vol	55	155	1	0
Through Vol	305	0	2	350
RT Vol	1	45	0	200
Lane Flow Rate	451	250	4	688
Geometry Grp	1	1	1	1
Degree of Util (X)	0.737	0.473	0.008	1.021
Departure Headway (Hd)	5.882	6.804	8.028	5.344
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	609	525	449	674
Service Time	3.973	4.901	6.028	3.424
HCM Lane V/C Ratio	0.741	0.476	0.009	1.021
HCM Control Delay	23.8	15.9	11.1	63.3
HCM Lane LOS	C	C	B	F
HCM 95th-tile Q	6.4	2.5	0	16.8

Lane Group	NBL	NBT	NBR	SBL	SBT	SET	SER	NWL	NWT
Lane Group Flow (vph)	330	456	258	110	462	401	324	253	528
v/c Ratio	1.26	0.93	0.45	0.61	1.23	1.10	0.60	0.97	0.70
Control Delay	173.7	56.9	10.7	45.8	151.1	105.4	11.1	81.2	22.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	173.7	56.9	10.7	45.8	151.1	105.4	11.1	81.2	22.2
Queue Length 50th (ft)	~182	~221	28	46	~252	~200	21	110	174
Queue Length 95th (ft)	#329	#387	88	#108	#424	#357	91	#244	284
Internal Link Dist (ft)		639			101	192			1578
Turn Bay Length (ft)			60	110			100	190	
Base Capacity (vph)	262	489	577	187	377	366	544	262	749
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.26	0.93	0.45	0.59	1.23	1.10	0.60	0.97	0.70

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	300	415	235	100	410	10	10	355	295	230	410	70
Future Volume (veh/h)	300	415	235	100	410	10	10	355	295	230	410	70
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	1737	1870	1870	1737	1737	1781	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	330	456	0	110	451	11	11	390	324	253	451	77
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	11	2	2	11	11	8	8	2	2	8	8
Cap, veh/h	262	496		141	367	9	56	367	334	262	626	107
Arrive On Green	0.15	0.29	0.00	0.08	0.22	0.22	0.21	0.21	0.21	0.15	0.42	0.42
Sat Flow, veh/h	1781	1737	1585	1781	1688	41	18	1742	1585	1781	1483	253
Grp Volume(v), veh/h	330	456	0	110	0	462	401	0	324	253	0	528
Grp Sat Flow(s),veh/h/ln	1781	1737	1585	1781	0	1730	1760	0	1585	1781	0	1736
Q Serve(g_s), s	10.4	18.0	0.0	4.3	0.0	15.4	5.8	0.0	14.4	10.0	0.0	17.9
Cycle Q Clear(g_c), s	10.4	18.0	0.0	4.3	0.0	15.4	14.9	0.0	14.4	10.0	0.0	17.9
Prop In Lane	1.00		1.00	1.00		0.02	0.03		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	262	496		141	0	376	423	0	334	262	0	733
V/C Ratio(X)	1.26	0.92		0.78	0.00	1.23	0.95	0.00	0.97	0.97	0.00	0.72
Avail Cap(c_a), veh/h	262	496		186	0	376	423	0	334	262	0	733
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.2	24.5	0.0	32.0	0.0	27.7	28.5	0.0	27.7	30.0	0.0	17.0
Incr Delay (d2), s/veh	144.5	22.4	0.0	14.4	0.0	124.0	30.9	0.0	41.4	46.3	0.0	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.8	10.0	0.0	2.3	0.0	19.0	9.9	0.0	8.9	7.4	0.0	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	174.7	46.9	0.0	46.4	0.0	151.7	59.4	0.0	69.2	76.4	0.0	20.4
LnGrp LOS	F	D		D	A	F	E	A	E	E	A	C
Approach Vol, veh/h		786	A		572			725			781	
Approach Delay, s/veh		100.6			131.4			63.8			38.6	
Approach LOS		F			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	10.2	25.6	15.0	20.0	15.0	20.8		35.0
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	* 5.4		5.1
Max Green Setting (Gmax), s	7.4	17.6	10.4	14.9	10.4	* 15		29.9
Max Q Clear Time (g_c+I1), s	6.3	20.0	12.0	16.9	12.4	17.4		19.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0		2.4

Intersection Summary	
HCM 6th Ctrl Delay	80.5
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	33.8
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	80	200	100	55	180	115	110	125	55	100	105	40
Future Vol, veh/h	80	200	100	55	180	115	110	125	55	100	105	40
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	88	220	110	60	198	126	121	137	60	110	115	44
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	43	35.5	28.3	23.6
HCM LOS	E	E	D	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	38%	21%	16%	41%
Vol Thru, %	43%	53%	51%	43%
Vol Right, %	19%	26%	33%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	290	380	350	245
LT Vol	110	80	55	100
Through Vol	125	200	180	105
RT Vol	55	100	115	40
Lane Flow Rate	319	418	385	269
Geometry Grp	1	1	1	1
Degree of Util (X)	0.707	0.869	0.807	0.614
Departure Headway (Hd)	7.983	7.496	7.554	8.205
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	449	480	477	439
Service Time	6.069	5.577	5.639	6.299
HCM Lane V/C Ratio	0.71	0.871	0.807	0.613
HCM Control Delay	28.3	43	35.5	23.6
HCM Lane LOS	D	E	E	C
HCM 95th-tile Q	5.4	9.1	7.5	4

Lane Group	EBT	EBR	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	174	261	44	293	864	973
v/c Ratio	0.65	0.50	0.15	0.98	0.42	0.75
Control Delay	36.6	7.3	19.0	81.4	6.5	19.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.6	7.3	19.0	81.4	6.5	19.8
Queue Length 50th (ft)	63	0	11	~130	75	156
Queue Length 95th (ft)	128	54	36	#290	116	232
Internal Link Dist (ft)	2546		191		2566	560
Turn Bay Length (ft)		100		160		
Base Capacity (vph)	341	594	378	298	2375	1580
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.44	0.12	0.98	0.36	0.62

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
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95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	0	240	20	10	10	270	795	0	0	735	160
Future Volume (veh/h)	160	0	240	20	10	10	270	795	0	0	735	160
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	1737	1737	1737	1737	1737
Adj Flow Rate, veh/h	174	0	261	22	11	11	293	864	0	0	799	174
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	11	11	11
Cap, veh/h	367	0	322	131	65	35	306	2079	0	0	1023	223
Arrive On Green	0.20	0.00	0.20	0.20	0.20	0.20	0.17	0.63	0.00	0.00	0.38	0.38
Sat Flow, veh/h	1217	0	1585	203	319	174	1781	3387	0	0	2782	587
Grp Volume(v), veh/h	174	0	261	44	0	0	293	864	0	0	489	484
Grp Sat Flow(s),veh/h/ln	1217	0	1585	696	0	0	1781	1650	0	0	1650	1631
Q Serve(g_s), s	0.0	0.0	9.4	0.2	0.0	0.0	9.8	7.9	0.0	0.0	15.7	15.7
Cycle Q Clear(g_c), s	8.5	0.0	9.4	8.7	0.0	0.0	9.8	7.9	0.0	0.0	15.7	15.7
Prop In Lane	1.00		1.00	0.50		0.25	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h	367	0	322	231	0	0	306	2079	0	0	626	619
V/C Ratio(X)	0.47	0.00	0.81	0.19	0.00	0.00	0.96	0.42	0.00	0.00	0.78	0.78
Avail Cap(c_a), veh/h	442	0	408	231	0	0	306	2079	0	0	816	806
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	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	0.0	22.8	19.9	0.0	0.0	24.6	5.6	0.0	0.0	16.4	16.4
Incr Delay (d2), s/veh	1.0	0.0	9.4	0.4	0.0	0.0	39.7	0.1	0.0	0.0	3.7	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	4.1	0.5	0.0	0.0	7.2	1.9	0.0	0.0	5.8	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.4	0.0	32.2	20.3	0.0	0.0	64.3	5.7	0.0	0.0	20.1	20.1
LnGrp LOS	C	A	C	C	A	A	E	A	A	A	C	C
Approach Vol, veh/h		435			44			1157			973	
Approach Delay, s/veh		28.7			20.3			20.5			20.1	
Approach LOS		C			C			C			C	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		43.1		16.8	15.0	28.1		16.8				
Change Period (Y+Rc), s		5.4		4.6	* 4.7	5.4		4.6				
Max Green Setting (Gmax), s		29.6		15.4	* 10	29.6		5.4				
Max Q Clear Time (g_c+I1), s		9.9		11.4	11.8	17.7		10.7				
Green Ext Time (p_c), s		6.2		0.7	0.0	5.1		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		21.7
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	SBL	SEL	SET	NWT	NWR
Lane Group Flow (vph)	190	86	678	741	132
v/c Ratio	0.49	0.31	0.55	0.75	0.14
Control Delay	19.0	26.1	8.1	24.2	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	19.0	26.1	8.1	24.2	3.4
Queue Length 50th (ft)	38	27	101	235	0
Queue Length 95th (ft)	87	65	224	#503	27
Internal Link Dist (ft)	2230		1578	1622	
Turn Bay Length (ft)					
Base Capacity (vph)	601	372	1377	991	950
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.32	0.23	0.49	0.75	0.14

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (veh/h)	85	80	75	590	645	115
Future Volume (veh/h)	85	80	75	590	645	115
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1870	1781	1781	1870
Adj Flow Rate, veh/h	98	92	86	678	741	132
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	2	8	8	2
Cap, veh/h	126	118	127	1157	839	746
Arrive On Green	0.15	0.15	0.07	0.65	0.47	0.47
Sat Flow, veh/h	863	810	1781	1781	1781	1585
Grp Volume(v), veh/h	191	0	86	678	741	132
Grp Sat Flow(s),veh/h/ln	1681	0	1781	1781	1781	1585
Q Serve(g_s), s	5.2	0.0	2.2	10.2	17.9	2.3
Cycle Q Clear(g_c), s	5.2	0.0	2.2	10.2	17.9	2.3
Prop In Lane	0.51	0.48	1.00			1.00
Lane Grp Cap(c), veh/h	245	0	127	1157	839	746
V/C Ratio(X)	0.78	0.00	0.68	0.59	0.88	0.18
Avail Cap(c_a), veh/h	546	0	372	1157	935	832
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	19.5	0.0	21.5	4.7	11.4	7.2
Incr Delay (d2), s/veh	5.3	0.0	6.1	0.8	9.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	1.1	2.1	7.4	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.8	0.0	27.6	5.5	20.7	7.4
LnGrp LOS	C	A	C	A	C	A
Approach Vol, veh/h	191			764	873	
Approach Delay, s/veh	24.8			8.0	18.7	
Approach LOS	C			A	B	

Timer - Assigned Phs	1	2	6	8
Phs Duration (G+Y+Rc), s	8.5	27.4	35.9	11.5
Change Period (Y+Rc), s	5.1	5.1	5.1	4.6
Max Green Setting (Gmax), s	9.9	24.9	24.9	15.4
Max Q Clear Time (g_c+I1), s	4.2	19.9	12.2	7.2
Green Ext Time (p_c), s	0.1	2.5	3.9	0.3

Intersection Summary	
HCM 6th Ctrl Delay	14.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	1.6

Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	40	10	5	670	765	65
Future Vol, veh/h	40	10	5	670	765	65
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	-	-	-	-	-
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	8	8	2
Mvmt Flow	43	11	5	728	832	71

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1606	868	903	0	-	0
Stage 1	868	-	-	-	-	-
Stage 2	738	-	-	-	-	-
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	116	352	753	-	-	-
Stage 1	411	-	-	-	-	-
Stage 2	473	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	115	352	753	-	-	-
Mov Cap-2 Maneuver	115	-	-	-	-	-
Stage 1	406	-	-	-	-	-
Stage 2	473	-	-	-	-	-

Approach	SB	SE	NW
HCM Control Delay, s	49.6	0.1	0
HCM LOS	E		

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SBLn1
Capacity (veh/h)	-	-	753	-	133
HCM Lane V/C Ratio	-	-	0.007	-	0.409
HCM Control Delay (s)	-	-	9.8	0	49.6
HCM Lane LOS	-	-	A	A	E
HCM 95th %tile Q(veh)	-	-	0	-	1.8

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	310	522	179	891	179	864
v/c Ratio	1.04	1.07	0.97	0.98	0.97	0.95
Control Delay	98.6	95.6	104.7	62.0	104.7	56.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	98.6	95.6	104.7	62.0	104.7	56.2
Queue Length 50th (ft)	~187	~348	115	293	115	282
Queue Length 95th (ft)	#358	#554	#250	#429	#250	#410
Internal Link Dist (ft)	615	635		1224		2566
Turn Bay Length (ft)			135		135	
Base Capacity (vph)	299	486	185	908	185	908
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.04	1.07	0.97	0.98	0.97	0.95

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	90	150	105	135	240	165	750	70	165	745	50
Future Volume (veh/h)	45	90	150	105	135	240	165	750	70	165	745	50
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	1737	1737	1870	1737	1737
Adj Flow Rate, veh/h	49	98	163	114	147	261	179	815	76	179	810	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	2	11	11
Cap, veh/h	40	81	135	97	125	223	187	851	79	187	876	58
Arrive On Green	0.15	0.15	0.15	0.26	0.26	0.26	0.10	0.28	0.28	0.10	0.28	0.28
Sat Flow, veh/h	268	536	892	371	478	849	1781	3051	285	1781	3140	209
Grp Volume(v), veh/h	310	0	0	522	0	0	179	441	450	179	426	438
Grp Sat Flow(s),veh/h/ln	1696	0	0	1699	0	0	1781	1650	1686	1781	1650	1699
Q Serve(g_s), s	15.1	0.0	0.0	26.2	0.0	0.0	10.0	26.3	26.3	10.0	25.1	25.1
Cycle Q Clear(g_c), s	15.1	0.0	0.0	26.2	0.0	0.0	10.0	26.3	26.3	10.0	25.1	25.1
Prop In Lane	0.16		0.53	0.22		0.50	1.00		0.17	1.00		0.12
Lane Grp Cap(c), veh/h	256	0	0	445	0	0	187	460	470	187	460	474
V/C Ratio(X)	1.21	0.00	0.00	1.17	0.00	0.00	0.96	0.96	0.96	0.96	0.92	0.92
Avail Cap(c_a), veh/h	256	0	0	445	0	0	187	460	470	187	460	474
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.5	0.0	0.0	36.9	0.0	0.0	44.5	35.5	35.5	44.5	35.0	35.0
Incr Delay (d2), s/veh	125.2	0.0	0.0	99.2	0.0	0.0	53.3	31.2	30.8	53.3	24.5	24.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.1	0.0	0.0	22.9	0.0	0.0	7.1	14.3	14.5	7.1	13.0	13.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	167.6	0.0	0.0	136.1	0.0	0.0	97.8	66.6	66.3	97.8	59.5	59.1
LnGrp LOS	F	A	A	F	A	A	F	E	E	F	E	E
Approach Vol, veh/h		310			522			1070			1043	
Approach Delay, s/veh		167.6			136.1			71.7			65.9	
Approach LOS		F			F			E			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.2	33.3		20.2	15.2	33.3		31.3				
Change Period (Y+Rc), s	* 4.7	5.4		5.1	* 4.7	5.4		5.1				
Max Green Setting (Gmax), s	* 11	27.9		15.1	* 11	27.9		26.2				
Max Q Clear Time (g_c+I1), s	12.0	28.3		17.1	12.0	27.1		28.2				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.5		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			91.2									
HCM 6th LOS			F									

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	NBT	SBT	SEL	SET	SER	NWL	NWT
Lane Group Flow (vph)	674	414	5	549	207	288	734
v/c Ratio	1.75	1.42	0.06	1.14	0.35	1.38	0.99
Control Delay	375.2	242.5	46.8	119.1	5.4	235.3	59.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	375.2	242.5	46.8	119.1	5.4	235.3	59.5
Queue Length 50th (ft)	~639	~361	3	~410	0	~245	430
Queue Length 95th (ft)	#860	#551	15	#614	49	#408	#806
Internal Link Dist (ft)	479	5386		3214			2844
Turn Bay Length (ft)			220			220	
Base Capacity (vph)	385	291	88	483	591	208	745
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.75	1.42	0.06	1.14	0.35	1.38	0.99

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	200	225	195	110	260	10	5	505	190	265	600	75
Future Volume (veh/h)	200	225	195	110	260	10	5	505	190	265	600	75
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	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	217	245	212	120	283	11	5	549	207	288	652	82
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	8	2	2	8	8
Cap, veh/h	118	133	115	85	199	8	12	490	436	210	600	75
Arrive On Green	0.21	0.21	0.21	0.16	0.16	0.16	0.01	0.28	0.28	0.12	0.39	0.39
Sat Flow, veh/h	561	634	548	532	1254	49	1781	1781	1585	1781	1551	195
Grp Volume(v), veh/h	674	0	0	414	0	0	5	549	207	288	0	734
Grp Sat Flow(s),veh/h/ln	1744	0	0	1835	0	0	1781	1781	1585	1781	0	1746
Q Serve(g_s), s	21.0	0.0	0.0	15.9	0.0	0.0	0.3	27.5	10.9	11.8	0.0	38.7
Cycle Q Clear(g_c), s	21.0	0.0	0.0	15.9	0.0	0.0	0.3	27.5	10.9	11.8	0.0	38.7
Prop In Lane	0.32		0.31	0.29		0.03	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	366	0	0	292	0	0	12	490	436	210	0	675
V/C Ratio(X)	1.84	0.00	0.00	1.42	0.00	0.00	0.43	1.12	0.47	1.37	0.00	1.09
Avail Cap(c_a), veh/h	366	0	0	292	0	0	89	490	436	210	0	675
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.5	0.0	0.0	42.1	0.0	0.0	49.5	36.3	30.2	44.1	0.0	30.7
Incr Delay (d2), s/veh	388.8	0.0	0.0	207.5	0.0	0.0	23.5	78.0	0.8	193.8	0.0	60.8
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	48.2	0.0	0.0	23.5	0.0	0.0	0.2	21.5	3.9	16.2	0.0	25.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	428.3	0.0	0.0	249.6	0.0	0.0	73.0	114.3	31.0	237.9	0.0	91.5
LnGrp LOS	F	A	A	F	A	A	E	F	C	F	A	F
Approach Vol, veh/h		674			414			761			1022	
Approach Delay, s/veh		428.3			249.6			91.4			132.7	
Approach LOS		F			F			F			F	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.4	17.2	34.0		22.4	6.0	45.2				
Change Period (Y+Rc), s		5.4	5.4	6.5		6.5	5.4	6.5				
Max Green Setting (Gmax), s		21.0	11.8	27.5		15.9	5.0	34.3				
Max Q Clear Time (g_c+I1), s		23.0	13.8	29.5		17.9	2.3	40.7				
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	0.0				

Intersection Summary		
HCM 6th Ctrl Delay		208.0
HCM 6th LOS		F

Intersection						
Int Delay, s/veh	1.4					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	60	20	940	60	40	935
Future Vol, veh/h	60	20	940	60	40	935
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	-	-	-	10	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	11	2	2	11
Mvmt Flow	65	22	1022	65	43	1016

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1649	544	0	0	1087	0
Stage 1	1055	-	-	-	-	-
Stage 2	594	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	90	483	-	-	638	-
Stage 1	296	-	-	-	-	-
Stage 2	514	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	84	483	-	-	638	-
Mov Cap-2 Maneuver	203	-	-	-	-	-
Stage 1	296	-	-	-	-	-
Stage 2	480	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.7	0	0.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	237	638	-
HCM Lane V/C Ratio	-	-	0.367	0.068	-
HCM Control Delay (s)	-	-	28.7	11.1	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	1.6	0.2	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	136	326	337	918	897	190
v/c Ratio	0.49	0.21	0.69	0.38	0.85	0.30
Control Delay	29.2	0.3	25.9	4.5	30.3	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.2	0.3	25.9	4.5	30.3	4.8
Queue Length 50th (ft)	42	0	101	63	154	0
Queue Length 95th (ft)	93	0	177	90	#287	40
Internal Link Dist (ft)	1555			1250	2580	
Turn Bay Length (ft)			340			280
Base Capacity (vph)	323	1583	657	2498	1060	644
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.21	0.51	0.37	0.85	0.30

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	125	300	310	845	825	175
Future Volume (veh/h)	125	300	310	845	825	175
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1737	1737	1870
Adj Flow Rate, veh/h	136	0	337	918	897	190
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	11	11	2
Cap, veh/h	177		417	2244	1103	530
Arrive On Green	0.10	0.00	0.23	0.68	0.33	0.33
Sat Flow, veh/h	1781	1585	1781	3387	3387	1585
Grp Volume(v), veh/h	136	0	337	918	897	190
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1650	1650	1585
Q Serve(g_s), s	3.4	0.0	8.2	5.6	11.4	4.1
Cycle Q Clear(g_c), s	3.4	0.0	8.2	5.6	11.4	4.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	177		417	2244	1103	530
V/C Ratio(X)	0.77		0.81	0.41	0.81	0.36
Avail Cap(c_a), veh/h	363		737	2932	1199	576
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	20.1	0.0	16.5	3.2	13.9	11.5
Incr Delay (d2), s/veh	6.9	0.0	3.8	0.1	4.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	3.1	0.5	3.8	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.0	0.0	20.3	3.4	18.0	11.9
LnGrp LOS	C		C	A	B	B
Approach Vol, veh/h	136	A		1255	1087	
Approach Delay, s/veh	27.0			7.9	16.9	
Approach LOS	C			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		36.5		9.2	15.8	20.7
Change Period (Y+Rc), s		5.4		* 4.7	5.1	5.4
Max Green Setting (Gmax), s		40.6		* 9.3	18.9	16.6
Max Q Clear Time (g_c+I1), s		7.6		5.4	10.2	13.4
Green Ext Time (p_c), s		7.2		0.1	0.7	1.9

Intersection Summary			
HCM 6th Ctrl Delay			12.9
HCM 6th LOS			B

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	158	174	250	673	65	701	245	636	652
v/c Ratio	0.91	0.54	0.72	0.89	0.41	1.07	0.43	1.72	0.51
Control Delay	80.0	27.4	39.9	29.2	34.0	81.7	3.6	360.2	16.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.0	27.4	39.9	29.2	34.0	81.7	3.6	360.2	16.8
Queue Length 50th (ft)	58	25	89	58	23	~152	0	~352	102
Queue Length 95th (ft)	#155	52	#204	#151	56	#248	24	#527	151
Internal Link Dist (ft)		1219		1008		1659			1250
Turn Bay Length (ft)	400		215		225		225	250	
Base Capacity (vph)	174	320	348	758	159	656	576	369	1272
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.54	0.72	0.89	0.41	1.07	0.43	1.72	0.51

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	125	35	230	235	385	60	645	225	585	565	35
Future Volume (veh/h)	145	125	35	230	235	385	60	645	225	585	565	35
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	1737	1870	1870	1737	1737
Adj Flow Rate, veh/h	158	136	38	250	255	418	65	701	245	636	614	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	2	2	11	11
Cap, veh/h	175	230	62	291	252	225	98	666	320	371	1120	69
Arrive On Green	0.10	0.08	0.08	0.16	0.14	0.14	0.06	0.20	0.20	0.21	0.35	0.35
Sat Flow, veh/h	1781	2764	748	1781	1777	1585	1781	3300	1585	1781	3157	195
Grp Volume(v), veh/h	158	86	88	250	255	418	65	701	245	636	321	331
Grp Sat Flow(s),veh/h/ln	1781	1777	1736	1781	1777	1585	1781	1650	1585	1781	1650	1702
Q Serve(g_s), s	5.3	2.8	2.9	8.2	8.5	8.5	2.1	12.1	8.8	12.5	9.3	9.4
Cycle Q Clear(g_c), s	5.3	2.8	2.9	8.2	8.5	8.5	2.1	12.1	8.8	12.5	9.3	9.4
Prop In Lane	1.00		0.43	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	175	148	145	291	252	225	98	666	320	371	586	604
V/C Ratio(X)	0.90	0.58	0.61	0.86	1.01	1.86	0.66	1.05	0.77	1.71	0.55	0.55
Avail Cap(c_a), veh/h	175	148	145	291	252	225	160	666	320	371	586	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.8	26.5	26.6	24.4	25.8	25.8	27.8	24.0	22.6	23.8	15.5	15.5
Incr Delay (d2), s/veh	41.3	5.6	7.2	21.9	60.1	404.3	7.4	49.7	10.6	332.5	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	1.3	1.4	4.8	7.4	28.1	1.0	8.7	3.8	38.9	3.1	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.1	32.0	33.8	46.3	85.9	430.0	35.2	73.7	33.3	356.2	16.6	16.6
LnGrp LOS	E	C	C	D	F	F	D	F	C	F	B	B
Approach Vol, veh/h		332			923			1011			1288	
Approach Delay, s/veh		49.7			231.0			61.4			184.3	
Approach LOS		D			F			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.6	17.5	14.5	10.4	8.4	26.7	11.0	13.9
Change Period (Y+Rc), s	5.1	5.4	* 4.7	5.4	5.1	5.4	5.1	5.4
Max Green Setting (Gmax), s	12.5	12.1	* 9.8	5.0	5.4	19.2	5.9	8.5
Max Q Clear Time (g_c+I1), s	14.5	14.1	10.2	4.9	4.1	11.4	7.3	10.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	148.9
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	109	38	70	82	5	967	43	729
v/c Ratio	0.33	0.08	0.23	0.19	0.02	0.57	0.15	0.41
Control Delay	27.9	0.3	26.0	0.9	24.8	13.9	25.6	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.9	0.3	26.0	0.9	24.8	13.9	25.6	10.7
Queue Length 50th (ft)	28	0	18	0	1	100	11	71
Queue Length 95th (ft)	#95	0	58	0	10	216	41	153
Internal Link Dist (ft)	1059		999			1484		1659
Turn Bay Length (ft)		150			75		250	
Base Capacity (vph)	346	478	307	447	271	1831	282	1931
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.08	0.23	0.18	0.02	0.53	0.15	0.38

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	30	35	50	15	75	5	810	80	40	650	20
Future Volume (veh/h)	70	30	35	50	15	75	5	810	80	40	650	20
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	1737	1737	1870	1737	1737
Adj Flow Rate, veh/h	76	33	38	54	16	82	5	880	87	43	707	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	2	11	11
Cap, veh/h	112	49	141	125	37	142	12	1149	114	77	1358	42
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.01	0.38	0.38	0.04	0.42	0.42
Sat Flow, veh/h	1260	547	1585	1389	412	1585	1781	3033	300	1781	3267	102
Grp Volume(v), veh/h	109	0	38	70	0	82	5	479	488	43	357	372
Grp Sat Flow(s),veh/h/ln	1807	0	1585	1801	0	1585	1781	1650	1683	1781	1650	1719
Q Serve(g_s), s	2.8	0.0	1.1	1.8	0.0	2.4	0.1	12.3	12.3	1.1	7.8	7.8
Cycle Q Clear(g_c), s	2.8	0.0	1.1	1.8	0.0	2.4	0.1	12.3	12.3	1.1	7.8	7.8
Prop In Lane	0.70		1.00	0.77		1.00	1.00		0.18	1.00		0.06
Lane Grp Cap(c), veh/h	160	0	141	161	0	142	12	625	638	77	686	714
V/C Ratio(X)	0.68	0.00	0.27	0.43	0.00	0.58	0.42	0.77	0.77	0.55	0.52	0.52
Avail Cap(c_a), veh/h	238	0	209	211	0	186	187	798	814	194	795	828
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.5	0.0	20.7	20.9	0.0	21.2	24.0	13.2	13.2	22.8	10.6	10.6
Incr Delay (d2), s/veh	5.0	0.0	1.0	1.8	0.0	3.7	21.6	3.4	3.3	6.1	0.6	0.6
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	1.3	0.0	0.4	0.8	0.0	1.0	0.1	4.1	4.2	0.6	2.2	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.4	0.0	21.7	22.8	0.0	24.9	45.6	16.6	16.5	28.9	11.2	11.2
LnGrp LOS	C	A	C	C	A	C	D	B	B	C	B	B
Approach Vol, veh/h		147			152			972			772	
Approach Delay, s/veh		25.2			23.9			16.7			12.2	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.8	23.8		8.9	5.0	25.6		9.1
Change Period (Y+Rc), s	* 4.7	* 5.4		4.6	* 4.7	5.4		4.7
Max Green Setting (Gmax), s	* 5.3	* 24		6.4	* 5.1	23.4		5.7
Max Q Clear Time (g_c+I1), s	3.1	14.3		4.8	2.1	9.8		4.4
Green Ext Time (p_c), s	0.0	4.1		0.1	0.0	3.6		0.1

Intersection Summary	
HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	93.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	240	0	160	3	1	1	205	790	15	0	560	100
Future Vol, veh/h	240	0	160	3	1	1	205	790	15	0	560	100
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	11	2	2	11	2
Mvmt Flow	261	0	174	3	1	1	223	859	16	0	609	109
Number of Lanes	1	1	0	0	1	0	1	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	2	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	3	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	1	2
HCM Control Delay	36	16	130.2	73.9
HCM LOS	E	C	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	60%	0%	0%
Vol Thru, %	0%	100%	95%	0%	0%	20%	100%	65%
Vol Right, %	0%	0%	5%	0%	100%	20%	0%	35%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	205	527	278	240	160	5	373	287
LT Vol	205	0	0	240	0	3	0	0
Through Vol	0	527	263	0	0	1	373	187
RT Vol	0	0	15	0	160	1	0	100
Lane Flow Rate	223	572	303	261	174	5	406	312
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.57	1.41	0.729	0.777	0.46	0.018	1.068	0.785
Departure Headway (Hd)	9.429	9.071	8.874	11.7	10.465	13.019	10.185	9.773
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	385	406	411	310	346	277	361	374
Service Time	7.129	6.771	6.574	9.4	8.165	10.719	7.885	7.473
HCM Lane V/C Ratio	0.579	1.409	0.737	0.842	0.503	0.018	1.125	0.834
HCM Control Delay	23.9	223.5	32	45.5	21.8	16	99.8	40.2
HCM Lane LOS	C	F	D	E	C	C	F	E
HCM 95th-tile Q	3.4	27.9	5.7	6.1	2.3	0.1	13.5	6.6

Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	207	603	103	272	489	1048	168	413	147
v/c Ratio	0.92	1.17	0.28	1.12	0.80	1.17	0.48	1.21	0.33
Control Delay	79.3	128.7	3.3	127.5	34.8	114.2	31.9	150.8	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.3	128.7	3.3	127.5	34.8	114.2	31.9	150.8	5.4
Queue Length 50th (ft)	97	~179	0	~149	88	~292	70	~240	0
Queue Length 95th (ft)	#219	#279	12	#289	#161	#413	127	#406	34
Internal Link Dist (ft)		625			462	348		628	
Turn Bay Length (ft)	250		80	130			225		325
Base Capacity (vph)	224	514	372	243	610	896	351	340	452
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	1.17	0.28	1.12	0.80	1.17	0.48	1.21	0.33

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	555	95	250	290	160	50	600	315	155	380	135
Future Volume (veh/h)	190	555	95	250	290	160	50	600	315	155	380	135
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	1737	1737	1737	1870	1737	1870
Adj Flow Rate, veh/h	207	603	0	272	315	174	54	652	0	168	413	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	11	11	11	2	11	2
Cap, veh/h	227	521		247	350	189	61	774		357	348	
Arrive On Green	0.13	0.15	0.00	0.14	0.16	0.16	0.25	0.25	0.00	0.20	0.20	0.00
Sat Flow, veh/h	1781	3554	1585	1781	2228	1203	247	3215	0	1781	1737	1585
Grp Volume(v), veh/h	207	603	0	272	250	239	377	329	0	168	413	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1654	1725	1650	0	1781	1737	1585
Q Serve(g_s), s	8.5	10.9	0.0	10.3	10.3	10.6	15.7	13.9	0.0	6.2	14.9	0.0
Cycle Q Clear(g_c), s	8.5	10.9	0.0	10.3	10.3	10.6	15.7	13.9	0.0	6.2	14.9	0.0
Prop In Lane	1.00		1.00	1.00		0.73	0.14		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	227	521		247	279	260	427	408		357	348	
V/C Ratio(X)	0.91	1.16		1.10	0.89	0.92	0.88	0.80		0.47	1.19	
Avail Cap(c_a), veh/h	227	521		247	279	260	447	428		357	348	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.0	31.8	0.0	32.1	30.8	30.9	27.0	26.3	0.0	26.3	29.8	0.0
Incr Delay (d2), s/veh	36.3	91.1	0.0	87.8	28.4	35.3	18.1	10.3	0.0	1.0	109.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	11.0	0.0	10.1	6.3	6.5	8.3	6.4	0.0	2.6	16.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.4	122.9	0.0	119.8	59.1	66.2	45.1	36.6	0.0	27.2	139.4	0.0
LnGrp LOS	E	F		F	E	E	D	D		C	F	
Approach Vol, veh/h		810	A		761			706	A		581	A
Approach Delay, s/veh		108.9			83.0			41.1			107.0	
Approach LOS		F			F			D			F	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.1	15.0	16.3		20.0	14.2	17.1				
Change Period (Y+Rc), s		* 4.7	* 4.7	* 5.4		5.1	* 4.7	5.4				
Max Green Setting (Gmax), s		* 19	* 10	* 11		14.9	* 9.5	11.4				
Max Q Clear Time (g_c+I1), s		17.7	12.3	12.9		16.9	10.5	12.6				
Green Ext Time (p_c), s		0.7	0.0	0.0		0.0	0.0	0.0				

Intersection Summary		
HCM 6th Ctrl Delay		84.9
HCM 6th LOS		F

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	272	251	6	321	745	597	196
v/c Ratio	1.70	0.62	0.06	0.58	1.27	1.02	0.31
Control Delay	364.1	12.0	22.0	20.8	158.7	65.7	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	364.1	12.0	22.0	20.8	158.7	65.7	4.2
Queue Length 50th (ft)	~136	0	2	86	~320	~199	0
Queue Length 95th (ft)	#256	#61	10	155	#499	#381	36
Internal Link Dist (ft)		1120	841		1106	348	
Turn Bay Length (ft)	100						275
Base Capacity (vph)	160	402	103	556	585	585	632
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.70	0.62	0.06	0.58	1.27	1.02	0.31

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	1	230	3	2	1	295	685	0	5	545	180
Future Volume (veh/h)	250	1	230	3	2	1	295	685	0	5	545	180
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	272	1	250	3	2	1	321	745	0	5	592	196
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	283	1	181	98	49	10	560	588	0	5	583	499
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.31	0.31	0.00	0.31	0.31	0.31
Sat Flow, veh/h	1414	6	1580	0	426	85	1781	1870	0	16	1854	1585
Grp Volume(v), veh/h	272	0	251	6	0	0	321	745	0	597	0	196
Grp Sat Flow(s),veh/h/ln	1414	0	1586	512	0	0	1781	1870	0	1870	0	1585
Q Serve(g_s), s	0.0	0.0	6.3	0.0	0.0	0.0	8.3	17.3	0.0	17.3	0.0	5.3
Cycle Q Clear(g_c), s	6.3	0.0	6.3	6.3	0.0	0.0	8.3	17.3	0.0	17.3	0.0	5.3
Prop In Lane	1.00		1.00	0.50		0.17	1.00		0.00	0.01		1.00
Lane Grp Cap(c), veh/h	283	0	182	157	0	0	560	588	0	588	0	499
V/C Ratio(X)	0.96	0.00	1.38	0.04	0.00	0.00	0.57	1.27	0.00	1.02	0.00	0.39
Avail Cap(c_a), veh/h	283	0	182	157	0	0	560	588	0	588	0	499
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	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.7	0.0	24.4	21.8	0.0	0.0	15.8	18.9	0.0	18.9	0.0	14.7
Incr Delay (d2), s/veh	42.5	0.0	202.2	0.1	0.0	0.0	1.4	133.0	0.0	41.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	0.0	12.4	0.1	0.0	0.0	3.2	28.2	0.0	13.2	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.2	0.0	226.5	21.9	0.0	0.0	17.2	151.8	0.0	59.8	0.0	15.2
LnGrp LOS	E	A	F	C	A	A	B	F	A	F	A	B
Approach Vol, veh/h		523			6			1066			793	
Approach Delay, s/veh		144.2			21.9			111.3			48.8	
Approach LOS		F			C			F			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.0		11.0		22.0		11.0				
Change Period (Y+Rc), s		* 4.7		* 4.7		4.7		* 4.7				
Max Green Setting (Gmax), s		* 17		* 6.3		17.3		* 6.3				
Max Q Clear Time (g_c+I1), s		19.3		8.3		19.3		8.3				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay			97.5
HCM 6th LOS			F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	332	353	22	87	179	250	576	174	304	353
v/c Ratio	0.86	0.27	0.16	0.36	0.43	0.89	0.72	0.39	0.82	0.59
Control Delay	49.5	6.8	32.2	30.4	4.8	63.6	30.7	28.9	46.1	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.5	6.8	32.2	30.4	4.8	63.6	30.7	28.9	46.1	7.8
Queue Length 50th (ft)	128	15	8	32	0	99	111	33	117	0
Queue Length 95th (ft)	#279	48	29	70	21	#235	#205	61	#252	64
Internal Link Dist (ft)		676		1203			944		1106	
Turn Bay Length (ft)	210		80			190		195		100
Base Capacity (vph)	389	1361	136	369	511	280	802	544	381	604
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.26	0.16	0.24	0.35	0.89	0.72	0.32	0.80	0.58

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	305	115	210	20	80	165	230	510	20	160	280	325
Future Volume (veh/h)	305	115	210	20	80	165	230	510	20	160	280	325
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	332	125	228	22	87	179	250	554	22	174	304	353
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	376	587	523	45	270	229	276	963	38	273	375	318
Arrive On Green	0.21	0.33	0.33	0.03	0.14	0.14	0.16	0.28	0.28	0.08	0.20	0.20
Sat Flow, veh/h	1781	1777	1585	1781	1870	1585	1781	3484	138	3456	1870	1585
Grp Volume(v), veh/h	332	125	228	22	87	179	250	282	294	174	304	353
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1870	1585	1781	1777	1845	1728	1870	1585
Q Serve(g_s), s	12.0	3.4	7.5	0.8	2.8	7.2	9.2	9.1	9.1	3.2	10.3	13.3
Cycle Q Clear(g_c), s	12.0	3.4	7.5	0.8	2.8	7.2	9.2	9.1	9.1	3.2	10.3	13.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	376	587	523	45	270	229	276	491	510	273	375	318
V/C Ratio(X)	0.88	0.21	0.44	0.49	0.32	0.78	0.90	0.57	0.58	0.64	0.81	1.11
Avail Cap(c_a), veh/h	384	605	540	134	363	308	276	491	510	536	375	318
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.4	16.0	17.4	31.9	25.5	27.4	27.6	20.7	20.7	29.6	25.3	26.5
Incr Delay (d2), s/veh	20.6	0.2	0.6	8.1	0.7	8.9	30.6	1.6	1.6	2.5	12.7	84.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	1.3	2.6	0.4	1.2	3.1	6.0	3.7	3.9	1.4	5.6	12.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.0	16.2	18.0	40.1	26.2	36.3	58.2	22.3	22.3	32.1	38.0	110.5
LnGrp LOS	D	B	B	D	C	D	E	C	C	C	D	F
Approach Vol, veh/h		685			288			826			831	
Approach Delay, s/veh		31.2			33.5			33.1			67.6	
Approach LOS		C			C			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	23.1	6.4	27.0	15.0	18.0	18.7	14.7
Change Period (Y+Rc), s	* 4.7	* 4.7	* 4.7	* 5.1	* 4.7	* 4.7	* 4.7	5.1
Max Green Setting (Gmax), s	* 10	* 13	* 5	* 23	* 10	* 13	* 14	12.9
Max Q Clear Time (g_c+I1), s	5.2	11.1	2.8	9.5	11.2	15.3	14.0	9.2
Green Ext Time (p_c), s	0.2	0.8	0.0	1.8	0.0	0.0	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	43.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	NBT	SBL	SBT	SBR	SEL	SET	NWL	NWT
Lane Group Flow (vph)	761	87	560	141	54	608	11	468
v/c Ratio	0.98dl	0.23	0.77	0.29	0.40	0.67	0.08	0.73
Control Delay	32.5	27.7	36.6	3.5	44.7	24.3	36.8	36.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	27.7	36.6	3.5	44.7	24.3	36.8	36.4
Queue Length 50th (ft)	183	37	141	0	27	100	5	116
Queue Length 95th (ft)	#252	76	#220	22	#67	#209	21	#183
Internal Link Dist (ft)	790		516			3919		2409
Turn Bay Length (ft)		150		65	165		405	
Base Capacity (vph)	1091	415	786	518	134	967	132	692
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.21	0.71	0.27	0.40	0.63	0.08	0.68

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	445	210	45	80	515	130	50	350	210	10	400	30
Future Volume (veh/h)	445	210	45	80	515	130	50	350	210	10	400	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	1781	1870	1870	1870	1870	1870	1781	1781
Adj Flow Rate, veh/h	484	228	49	87	560	141	54	380	228	11	435	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	8	2	2	2	2	2	8	8
Cap, veh/h	525	440	95	359	683	320	81	427	253	24	534	40
Arrive On Green	0.29	0.29	0.29	0.20	0.20	0.20	0.05	0.20	0.20	0.01	0.17	0.17
Sat Flow, veh/h	1781	1492	321	1781	3385	1585	1781	2148	1270	1781	3189	241
Grp Volume(v), veh/h	484	0	277	87	560	141	54	313	295	11	230	238
Grp Sat Flow(s),veh/h/ln	1781	0	1813	1781	1692	1585	1781	1777	1642	1781	1692	1738
Q Serve(g_s), s	19.5	0.0	9.4	3.0	11.8	5.8	2.2	12.7	13.0	0.5	9.7	9.8
Cycle Q Clear(g_c), s	19.5	0.0	9.4	3.0	11.8	5.8	2.2	12.7	13.0	0.5	9.7	9.8
Prop In Lane	1.00		0.18	1.00		1.00	1.00		0.77	1.00		0.14
Lane Grp Cap(c), veh/h	525	0	535	359	683	320	81	353	326	24	283	291
V/C Ratio(X)	0.92	0.00	0.52	0.24	0.82	0.44	0.67	0.89	0.90	0.45	0.81	0.82
Avail Cap(c_a), veh/h	535	0	544	393	747	350	127	353	326	125	328	337
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	25.3	0.0	21.8	24.9	28.4	26.0	34.9	28.9	29.0	36.3	29.8	29.8
Incr Delay (d2), s/veh	21.3	0.0	0.8	0.3	6.7	1.0	9.2	22.7	26.8	12.5	12.7	13.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.5	0.0	3.8	1.3	5.3	2.0	1.1	7.0	6.9	0.3	4.5	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.6	0.0	22.6	25.2	35.1	26.9	44.1	51.7	55.9	48.9	42.5	42.8
LnGrp LOS	D	A	C	C	D	C	D	D	E	D	D	D
Approach Vol, veh/h		761			788			662			479	
Approach Delay, s/veh		37.9			32.6			52.9			42.8	
Approach LOS		D			C			D			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		27.3	6.1	21.3		19.6	8.5	18.9				
Change Period (Y+Rc), s		5.4	5.1	6.5		4.6	5.1	6.5				
Max Green Setting (Gmax), s		22.3	5.2	14.5		16.4	5.3	14.4				
Max Q Clear Time (g_c+I1), s		21.5	2.5	15.0		13.8	4.2	11.8				
Green Ext Time (p_c), s		0.4	0.0	0.0		1.2	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay			40.9									
HCM 6th LOS			D									

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	764	168	453	200	179
v/c Ratio	0.85	0.79	0.36	0.62	0.41
Control Delay	28.0	61.2	6.5	37.4	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	28.0	61.2	6.5	37.4	7.6
Queue Length 50th (ft)	282	80	74	89	0
Queue Length 95th (ft)	#571	#198	151	154	48
Internal Link Dist (ft)	2554		884	1920	
Turn Bay Length (ft)		200		120	
Base Capacity (vph)	956	214	1331	644	690
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.80	0.79	0.34	0.31	0.26

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	525	200	160	430	190	170
Future Volume (veh/h)	525	200	160	430	190	170
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	553	211	168	453	200	179
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	630	240	210	1282	279	248
Arrive On Green	0.49	0.49	0.12	0.69	0.16	0.16
Sat Flow, veh/h	1290	492	1781	1870	1781	1585
Grp Volume(v), veh/h	0	764	168	453	200	179
Grp Sat Flow(s),veh/h/ln	0	1782	1781	1870	1781	1585
Q Serve(g_s), s	0.0	24.3	5.8	6.4	6.7	6.8
Cycle Q Clear(g_c), s	0.0	24.3	5.8	6.4	6.7	6.8
Prop In Lane		0.28	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	870	210	1282	279	248
V/C Ratio(X)	0.00	0.88	0.80	0.35	0.72	0.72
Avail Cap(c_a), veh/h	0	1099	254	1568	761	677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	14.5	27.2	4.1	25.3	25.4
Incr Delay (d2), s/veh	0.0	6.9	14.0	0.2	3.5	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.8	3.2	1.6	3.0	2.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	21.4	41.2	4.3	28.8	29.3
LnGrp LOS	A	C	D	A	C	C
Approach Vol, veh/h	764			621	379	
Approach Delay, s/veh	21.4			14.3	29.0	
Approach LOS	C			B	C	

Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	14.9	12.4	35.9	48.3
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	27.0	9.0	39.0	53.0
Max Q Clear Time (g_c+I1), s	8.8	7.8	26.3	8.4
Green Ext Time (p_c), s	1.1	0.1	4.6	3.2

Intersection Summary	
HCM 6th Ctrl Delay	20.5
HCM 6th LOS	C

Lane Group	EBT	EBR	WBT	SEL	SET	SER	NWL	NWT
Lane Group Flow (vph)	405	321	447	42	225	42	237	258
v/c Ratio	0.87	0.44	1.05	0.39	0.71	0.10	1.06	0.50
Control Delay	56.1	6.2	94.8	55.9	49.2	0.5	120.9	32.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.1	6.2	94.8	55.9	49.2	0.5	120.9	32.6
Queue Length 50th (ft)	236	22	~301	25	131	0	~163	137
Queue Length 95th (ft)	#439	56	#545	64	208	0	#339	217
Internal Link Dist (ft)	884		1579		1178			1731
Turn Bay Length (ft)		100		100		25	200	
Base Capacity (vph)	487	726	426	111	481	561	223	590
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.44	1.05	0.38	0.47	0.07	1.06	0.44

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	40	345	305	45	320	60	40	225	40	225	220	25
Future Volume (veh/h)	40	345	305	45	320	60	40	225	40	225	220	25
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	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	42	363	321	47	337	63	42	225	42	237	232	26
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	8	2	2	8	8
Cap, veh/h	48	413	602	46	332	62	64	278	248	236	398	45
Arrive On Green	0.25	0.25	0.25	0.24	0.24	0.24	0.04	0.16	0.16	0.13	0.25	0.25
Sat Flow, veh/h	193	1668	1585	191	1368	256	1781	1781	1585	1781	1573	176
Grp Volume(v), veh/h	405	0	321	447	0	0	42	225	42	237	0	258
Grp Sat Flow(s),veh/h/ln	1861	0	1585	1815	0	0	1781	1781	1585	1781	0	1750
Q Serve(g_s), s	19.0	0.0	14.3	22.0	0.0	0.0	2.1	11.0	2.1	12.0	0.0	11.7
Cycle Q Clear(g_c), s	19.0	0.0	14.3	22.0	0.0	0.0	2.1	11.0	2.1	12.0	0.0	11.7
Prop In Lane	0.10		1.00	0.11		0.14	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	461	0	602	441	0	0	64	278	248	236	0	442
V/C Ratio(X)	0.88	0.00	0.53	1.01	0.00	0.00	0.65	0.81	0.17	1.00	0.00	0.58
Avail Cap(c_a), veh/h	514	0	648	441	0	0	118	511	455	236	0	618
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	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.8	0.0	21.8	34.3	0.0	0.0	43.1	36.9	33.1	39.3	0.0	29.7
Incr Delay (d2), s/veh	14.9	0.0	0.7	46.4	0.0	0.0	10.7	5.5	0.3	59.7	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	0.0	5.2	15.1	0.0	0.0	1.1	5.2	0.8	9.1	0.0	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.7	0.0	22.6	80.7	0.0	0.0	53.8	42.4	33.4	98.9	0.0	30.9
LnGrp LOS	D	A	C	F	A	A	D	D	C	F	A	C
Approach Vol, veh/h		726			447			309			495	
Approach Delay, s/veh		36.6			80.7			42.8			63.5	
Approach LOS		D			F			D			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.3	27.9		27.4	17.0	19.2		27.0
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0
Max Green Setting (Gmax), s	6.0	32.0		25.0	12.0	26.0		22.0
Max Q Clear Time (g_c+I1), s	4.1	13.7		21.0	14.0	13.0		24.0
Green Ext Time (p_c), s	0.0	1.4		1.5	0.0	1.1		0.0

Intersection Summary	
HCM 6th Ctrl Delay	54.3
HCM 6th LOS	D

	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	514	540	617	439
v/c Ratio	0.76	1.04	0.98	0.62
Control Delay	25.6	74.0	55.6	20.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	25.6	74.0	55.6	20.8
Queue Length 50th (ft)	184	~276	267	146
Queue Length 95th (ft)	214	#325	#332	173
Internal Link Dist (ft)	1579	1246	1034	1250
Turn Bay Length (ft)				
Base Capacity (vph)	677	519	628	710
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.76	1.04	0.98	0.62

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Volume (veh/h)	75	235	65	150	225	20	75	275	100	25	215	80
Future Volume (veh/h)	75	235	65	150	225	20	75	275	100	25	215	80
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	103	322	89	205	308	27	103	377	137	34	295	110
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	164	464	119	257	334	28	143	420	145	81	487	172
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	232	1013	261	414	729	60	212	1034	355	71	1197	424
Grp Volume(v), veh/h	514	0	0	540	0	0	617	0	0	439	0	0
Grp Sat Flow(s),veh/h/ln	1505	0	0	1203	0	0	1601	0	0	1692	0	0
Q Serve(g_s), s	0.0	0.0	0.0	13.1	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	19.9	0.0	0.0	33.0	0.0	0.0	27.5	0.0	0.0	14.5	0.0	0.0
Prop In Lane	0.20		0.17	0.38		0.05	0.17		0.22	0.08		0.25
Lane Grp Cap(c), veh/h	748	0	0	619	0	0	708	0	0	741	0	0
V/C Ratio(X)	0.69	0.00	0.00	0.87	0.00	0.00	0.87	0.00	0.00	0.59	0.00	0.00
Avail Cap(c_a), veh/h	748	0	0	619	0	0	725	0	0	759	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.8	0.0	0.0	20.4	0.0	0.0	20.9	0.0	0.0	17.3	0.0	0.0
Incr Delay (d2), s/veh	2.6	0.0	0.0	13.0	0.0	0.0	11.1	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	0.0	0.0	10.6	0.0	0.0	11.5	0.0	0.0	5.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.5	0.0	0.0	33.4	0.0	0.0	32.0	0.0	0.0	18.5	0.0	0.0
LnGrp LOS	B	A	A	C	A	A	C	A	A	B	A	A
Approach Vol, veh/h		514			540			617			439	
Approach Delay, s/veh		18.5			33.4			32.0			18.5	
Approach LOS		B			C			C			B	

Timer - Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		35.2		39.0		35.2		39.0
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		31.0		34.0		31.0		34.0
Max Q Clear Time (g_c+I1), s		29.5		21.9		16.5		35.0
Green Ext Time (p_c), s		0.7		2.8		2.5		0.0

Intersection Summary			
HCM 6th Ctrl Delay			26.3
HCM 6th LOS			C

Lane Group	NBL	NBT	NBR	SBL	SBT	SET	SER	NWL	NWT
Lane Group Flow (vph)	247	376	288	53	447	424	253	235	395
v/c Ratio	0.96	0.58	0.42	0.58	0.95	0.96	0.33	0.96	0.52
Control Delay	92.3	29.6	13.3	71.0	67.0	73.1	9.8	91.7	22.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	92.3	29.6	13.3	71.0	67.0	73.1	9.8	91.7	22.8
Queue Length 50th (ft)	159	193	62	34	277	268	46	151	173
Queue Length 95th (ft)	#286	269	119	#80	#426	#419	90	#275	241
Internal Link Dist (ft)		639			101	192			1578
Turn Bay Length (ft)			60	110			100	190	
Base Capacity (vph)	256	651	692	92	482	440	778	246	761
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.58	0.42	0.58	0.93	0.96	0.33	0.96	0.52

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	210	320	245	45	375	5	0	360	215	200	275	60
Future Volume (veh/h)	210	320	245	45	375	5	0	360	215	200	275	60
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	1737	1870	1870	1737	1737	0	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	247	376	0	53	441	6	0	424	253	235	324	71
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	11	2	2	11	11	0	8	2	2	8	8
Cap, veh/h	256	659		69	469	6	0	442	621	245	611	134
Arrive On Green	0.14	0.38	0.00	0.04	0.27	0.27	0.00	0.25	0.25	0.14	0.43	0.43
Sat Flow, veh/h	1781	1737	1585	1781	1710	23	0	1781	1585	1781	1415	310
Grp Volume(v), veh/h	247	376	0	53	0	447	0	424	253	235	0	395
Grp Sat Flow(s),veh/h/ln	1781	1737	1585	1781	0	1733	0	1781	1585	1781	0	1726
Q Serve(g_s), s	13.8	17.2	0.0	3.0	0.0	25.3	0.0	23.6	11.6	13.1	0.0	16.9
Cycle Q Clear(g_c), s	13.8	17.2	0.0	3.0	0.0	25.3	0.0	23.6	11.6	13.1	0.0	16.9
Prop In Lane	1.00		1.00	1.00		0.01	0.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	256	659		69	0	475	0	442	621	245	0	745
V/C Ratio(X)	0.97	0.57		0.77	0.00	0.94	0.00	0.96	0.41	0.96	0.00	0.53
Avail Cap(c_a), veh/h	256	659		92	0	484	0	442	621	245	0	745
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.7	24.7	0.0	47.8	0.0	35.6	0.0	37.2	22.1	43.0	0.0	21.0
Incr Delay (d2), s/veh	46.7	1.2	0.0	24.1	0.0	26.5	0.0	32.3	0.4	46.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	7.1	0.0	1.8	0.0	14.0	0.0	13.8	4.2	8.8	0.0	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	89.4	25.8	0.0	71.9	0.0	62.1	0.0	69.5	22.5	89.0	0.0	21.7
LnGrp LOS	F	C		E	A	E	A	E	C	F	A	C
Approach Vol, veh/h		623	A		500			677			630	
Approach Delay, s/veh		51.0			63.1			52.0			46.8	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	8
Phs Duration (G+Y+Rc), s	8.5	43.5	18.4	30.0	19.0	32.9	48.4
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	* 5.4	5.1
Max Green Setting (Gmax), s	5.2	36.4	13.8	24.9	14.4	* 28	43.3
Max Q Clear Time (g_c+I1), s	5.0	19.2	15.1	25.6	15.8	27.3	18.9
Green Ext Time (p_c), s	0.0	2.1	0.0	0.0	0.0	0.2	2.4

Intersection Summary	
HCM 6th Ctrl Delay	52.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	346	551	587	594
v/c Ratio	0.54	1.05	1.03	0.76
Control Delay	17.0	73.3	64.6	18.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	17.0	73.3	64.6	18.3
Queue Length 50th (ft)	85	~210	~205	124
Queue Length 95th (ft)	105	#239	#249	#296
Internal Link Dist (ft)	476	2546	560	561
Turn Bay Length (ft)				
Base Capacity (vph)	641	526	571	780
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.54	1.05	1.03	0.76

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	155	54	125	115	140	105	175	125	44	175	240
Future Volume (veh/h)	30	155	54	125	115	140	105	175	125	44	175	240
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	0.96		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	225	78	181	167	203	152	254	181	64	182	348
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.96	0.69
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	112	450	144	242	188	204	196	279	178	116	247	419
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	117	1174	376	423	492	533	269	620	396	110	548	932
Grp Volume(v), veh/h	346	0	0	551	0	0	587	0	0	594	0	0
Grp Sat Flow(s),veh/h/ln	1667	0	0	1448	0	0	1285	0	0	1590	0	0
Q Serve(g_s), s	0.0	0.0	0.0	13.7	0.0	0.0	7.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	9.1	0.0	0.0	22.7	0.0	0.0	27.0	0.0	0.0	19.3	0.0	0.0
Prop In Lane	0.12		0.23	0.33		0.37	0.26		0.31	0.11		0.59
Lane Grp Cap(c), veh/h	707	0	0	635	0	0	654	0	0	782	0	0
V/C Ratio(X)	0.49	0.00	0.00	0.87	0.00	0.00	0.90	0.00	0.00	0.76	0.00	0.00
Avail Cap(c_a), veh/h	707	0	0	635	0	0	654	0	0	782	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.2	0.0	0.0	18.1	0.0	0.0	16.4	0.0	0.0	14.2	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	12.3	0.0	0.0	15.2	0.0	0.0	4.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	0.0	8.7	0.0	0.0	9.7	0.0	0.0	6.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.7	0.0	0.0	30.4	0.0	0.0	31.7	0.0	0.0	18.5	0.0	0.0
LnGrp LOS	B	A	A	C	A	A	C	A	A	B	A	A
Approach Vol, veh/h		346			551			587			594	
Approach Delay, s/veh		14.7			30.4			31.7			18.5	
Approach LOS		B			C			C			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		32.0		28.0		32.0		28.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		27.0		23.0		27.0		23.0				
Max Q Clear Time (g_c+I1), s		29.0		11.1		21.3		24.7				
Green Ext Time (p_c), s		0.0		1.7		2.1		0.0				

Intersection Summary			
HCM 6th Ctrl Delay			24.8
HCM 6th LOS			C

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	49	420	68	271	191	945	185	1031
v/c Ratio	0.42	0.85	0.53	0.51	0.82	0.83	0.80	0.91
Control Delay	55.2	41.6	59.8	23.9	69.9	37.1	67.7	43.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.2	41.6	59.8	23.9	69.9	37.1	67.7	43.9
Queue Length 50th (ft)	28	186	40	102	113	273	109	311
Queue Length 95th (ft)	62	252	#80	152	#215	#342	#204	#413
Internal Link Dist (ft)		615		635		1224		2566
Turn Bay Length (ft)					135		135	
Base Capacity (vph)	121	636	133	639	232	1132	236	1128
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.66	0.51	0.42	0.82	0.83	0.78	0.91

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	120	220	55	95	125	155	685	80	150	780	55
Future Volume (veh/h)	40	120	220	55	95	125	155	685	80	150	780	55
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	1737	1737	1870	1737	1737
Adj Flow Rate, veh/h	49	148	272	68	117	154	191	846	99	185	963	68
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	2	11	11
Cap, veh/h	94	164	300	105	207	273	221	974	114	218	1017	72
Arrive On Green	0.05	0.28	0.28	0.06	0.28	0.28	0.12	0.33	0.33	0.12	0.33	0.33
Sat Flow, veh/h	1781	590	1085	1781	733	964	1781	2976	348	1781	3127	221
Grp Volume(v), veh/h	49	0	420	68	0	271	191	469	476	185	508	523
Grp Sat Flow(s),veh/h/ln	1781	0	1675	1781	0	1697	1781	1650	1674	1781	1650	1697
Q Serve(g_s), s	2.5	0.0	22.8	3.5	0.0	12.9	9.9	25.2	25.2	9.6	28.3	28.3
Cycle Q Clear(g_c), s	2.5	0.0	22.8	3.5	0.0	12.9	9.9	25.2	25.2	9.6	28.3	28.3
Prop In Lane	1.00		0.65	1.00		0.57	1.00		0.21	1.00		0.13
Lane Grp Cap(c), veh/h	94	0	464	105	0	480	221	540	548	218	537	552
V/C Ratio(X)	0.52	0.00	0.91	0.65	0.00	0.56	0.87	0.87	0.87	0.85	0.95	0.95
Avail Cap(c_a), veh/h	115	0	539	126	0	557	221	540	548	225	540	556
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.5	0.0	32.9	43.5	0.0	28.9	40.6	29.9	29.9	40.6	31.0	31.0
Incr Delay (d2), s/veh	4.4	0.0	17.2	8.4	0.0	1.0	28.2	14.2	14.0	24.9	25.9	25.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	11.2	1.8	0.0	5.3	6.0	11.8	12.0	5.7	14.7	15.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.9	0.0	50.2	51.9	0.0	29.9	68.7	44.0	43.8	65.5	57.0	56.5
LnGrp LOS	D	A	D	D	A	C	E	D	D	E	E	E
Approach Vol, veh/h		469			339			1136			1216	
Approach Delay, s/veh		49.9			34.3			48.1			58.1	
Approach LOS		D			C			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.2	36.3	10.6	31.2	16.4	36.1	10.1	31.8
Change Period (Y+Rc), s	* 4.7	5.4	5.1	5.1	* 4.7	5.4	5.1	5.1
Max Green Setting (Gmax), s	* 12	30.7	6.7	30.4	* 12	30.9	6.1	31.0
Max Q Clear Time (g_c+I1), s	11.6	27.2	5.5	24.8	11.9	30.3	4.5	14.9
Green Ext Time (p_c), s	0.0	1.9	0.0	1.3	0.0	0.4	0.0	1.5

Intersection Summary		
HCM 6th Ctrl Delay		50.7
HCM 6th LOS		D

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	NBT	NBR	SBL	SBT	SEL	SET	SER	NWL	NWT
Lane Group Flow (vph)	368	295	142	326	5	558	142	200	374
v/c Ratio	0.83	0.58	0.39	0.84	0.07	0.83	0.32	0.77	0.30
Control Delay	61.6	22.6	47.2	67.8	64.6	60.0	7.0	71.6	28.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.6	22.6	47.2	67.8	64.6	60.0	7.0	71.6	28.6
Queue Length 50th (ft)	299	93	105	267	4	243	0	165	111
Queue Length 95th (ft)	421	189	174	#426	19	#338	44	#278	177
Internal Link Dist (ft)	479			5386		3214			2844
Turn Bay Length (ft)		100			220		100	220	
Base Capacity (vph)	549	594	430	452	75	755	480	310	1322
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.50	0.33	0.72	0.07	0.74	0.30	0.65	0.28

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	135	215	280	135	305	5	5	530	135	190	335	20
Future Volume (veh/h)	135	215	280	135	305	5	5	530	135	190	335	20
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	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	142	226	295	142	321	5	5	558	142	200	353	21
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	8	2	2	8	8
Cap, veh/h	168	267	375	359	371	6	12	677	317	234	1056	63
Arrive On Green	0.24	0.24	0.24	0.20	0.20	0.20	0.01	0.20	0.20	0.13	0.33	0.33
Sat Flow, veh/h	708	1127	1585	1781	1837	29	1781	3385	1585	1781	3247	192
Grp Volume(v), veh/h	368	0	295	142	0	326	5	558	142	200	183	191
Grp Sat Flow(s),veh/h/ln	1835	0	1585	1781	0	1865	1781	1692	1585	1781	1692	1747
Q Serve(g_s), s	19.8	0.0	18.1	7.2	0.0	17.5	0.3	16.3	8.1	11.4	8.5	8.6
Cycle Q Clear(g_c), s	19.8	0.0	18.1	7.2	0.0	17.5	0.3	16.3	8.1	11.4	8.5	8.6
Prop In Lane	0.39		1.00	1.00		0.02	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	434	0	375	359	0	376	12	677	317	234	550	568
V/C Ratio(X)	0.85	0.00	0.79	0.40	0.00	0.87	0.43	0.82	0.45	0.85	0.33	0.34
Avail Cap(c_a), veh/h	628	0	542	492	0	516	86	870	407	355	690	712
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	0.0	37.0	35.8	0.0	39.9	51.2	39.6	36.4	44.0	26.4	26.5
Incr Delay (d2), s/veh	7.3	0.0	4.8	0.7	0.0	11.1	23.7	5.1	1.0	12.0	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	0.0	7.0	3.0	0.0	8.6	0.2	6.8	3.0	5.5	3.2	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.0	0.0	41.8	36.5	0.0	51.0	74.9	44.8	37.4	56.0	26.8	26.8
LnGrp LOS	D	A	D	D	A	D	E	D	D	E	C	C
Approach Vol, veh/h		663			468			705			574	
Approach Delay, s/veh		43.6			46.6			43.5			37.0	
Approach LOS		D			D			D			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.9	19.0	27.2		27.4	6.1	40.1				
Change Period (Y+Rc), s		5.4	5.4	6.5		6.5	5.4	6.5				
Max Green Setting (Gmax), s		35.4	20.6	26.6		28.6	5.0	42.2				
Max Q Clear Time (g_c+I1), s		21.8	13.4	18.3		19.5	2.3	10.6				
Green Ext Time (p_c), s		2.7	0.3	2.4		1.4	0.0	1.9				
Intersection Summary												
HCM 6th Ctrl Delay			42.6									
HCM 6th LOS			D									

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	228	1084	60	1205
v/c Ratio	0.52	0.71	0.37	0.65
Control Delay	18.7	19.3	38.5	12.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	18.7	19.3	38.5	12.0
Queue Length 50th (ft)	54	158	21	113
Queue Length 95th (ft)	94	#360	#68	291
Internal Link Dist (ft)	974	2580		1224
Turn Bay Length (ft)			10	
Base Capacity (vph)	995	1608	162	2268
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.23	0.67	0.37	0.53

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	100	90	805	95	50	1000
Future Volume (veh/h)	100	90	805	95	50	1000
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1737	1737	1870	1737
Adj Flow Rate, veh/h	120	108	970	114	60	1205
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	11	11	2	11
Cap, veh/h	155	140	1269	149	101	1992
Arrive On Green	0.18	0.18	0.43	0.43	0.06	0.60
Sat Flow, veh/h	882	794	3062	350	1781	3387
Grp Volume(v), veh/h	229	0	538	546	60	1205
Grp Sat Flow(s),veh/h/ln	1683	0	1650	1674	1781	1650
Q Serve(g_s), s	6.5	0.0	13.8	13.8	1.6	11.4
Cycle Q Clear(g_c), s	6.5	0.0	13.8	13.8	1.6	11.4
Prop In Lane	0.52	0.47		0.21	1.00	
Lane Grp Cap(c), veh/h	296	0	704	714	101	1992
V/C Ratio(X)	0.77	0.00	0.76	0.76	0.60	0.61
Avail Cap(c_a), veh/h	1047	0	894	907	179	2516
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	19.6	0.0	12.2	12.2	23.0	6.2
Incr Delay (d2), s/veh	4.3	0.0	3.0	3.0	5.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	4.6	4.7	0.8	2.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.9	0.0	15.2	15.2	28.5	6.5
LnGrp LOS	C	A	B	B	C	A
Approach Vol, veh/h	229		1084			1265
Approach Delay, s/veh	23.9		15.2			7.5
Approach LOS	C		B			A

Timer - Assigned Phs	1	2	6	8
Phs Duration (G+Y+Rc), s	8.8	27.3	36.1	13.8
Change Period (Y+Rc), s	6.0	6.0	6.0	5.0
Max Green Setting (Gmax), s	5.0	27.0	38.0	31.0
Max Q Clear Time (g_c+I1), s	3.6	15.8	13.4	8.5
Green Ext Time (p_c), s	0.0	5.4	10.2	0.7

Intersection Summary	
HCM 6th Ctrl Delay	12.2
HCM 6th LOS	B

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	456	589	614	848	924	646
v/c Ratio	1.04	0.37	1.06	0.40	0.99	0.67
Control Delay	94.5	0.7	92.3	9.3	66.6	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	94.5	0.7	92.3	9.3	66.6	17.4
Queue Length 50th (ft)	~348	0	~479	131	341	253
Queue Length 95th (ft)	#441	0	#560	140	#378	295
Internal Link Dist (ft)	1555			480	2580	
Turn Bay Length (ft)			340			280
Base Capacity (vph)	439	1583	577	2146	934	962
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.04	0.37	1.06	0.40	0.99	0.67

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	360	465	485	670	730	510
Future Volume (veh/h)	360	465	485	670	730	510
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1737	1737	1870
Adj Flow Rate, veh/h	456	0	614	848	924	519
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	11	11	2
Cap, veh/h	442		581	2178	948	849
Arrive On Green	0.25	0.00	0.33	0.66	0.29	0.29
Sat Flow, veh/h	1781	1585	1781	3387	3387	1585
Grp Volume(v), veh/h	456	0	614	848	924	519
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1650	1650	1585
Q Serve(g_s), s	27.3	0.0	35.9	12.9	30.5	24.9
Cycle Q Clear(g_c), s	27.3	0.0	35.9	12.9	30.5	24.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	442		581	2178	948	849
V/C Ratio(X)	1.03		1.06	0.39	0.97	0.61
Avail Cap(c_a), veh/h	442		581	2178	948	849
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	41.3	0.0	37.1	8.6	38.8	17.6
Incr Delay (d2), s/veh	51.1	0.0	53.0	0.1	23.1	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.1	0.0	23.4	4.1	14.9	14.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	92.5	0.0	90.1	8.7	61.9	18.9
LnGrp LOS	F		F	A	E	B
Approach Vol, veh/h	456	A		1462	1443	
Approach Delay, s/veh	92.5			42.9	46.5	
Approach LOS	F			D	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		78.0		32.0	41.0	37.0
Change Period (Y+Rc), s		5.4		* 4.7	5.1	5.4
Max Green Setting (Gmax), s		72.6		* 27	35.9	31.6
Max Q Clear Time (g_c+I1), s		14.9		29.3	37.9	32.5
Green Ext Time (p_c), s		6.8		0.0	0.0	0.0

Intersection Summary				
HCM 6th Ctrl Delay			51.1	
HCM 6th LOS			D	

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	200	389	95	321	432	126	537	74	505	652
v/c Ratio	0.84	0.57	0.64	0.82	0.53	0.58	0.82	0.15	0.91	0.51
Control Delay	68.9	37.7	60.1	57.3	15.2	47.6	45.5	0.7	52.2	21.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.9	37.7	60.1	57.3	15.2	47.6	45.5	0.7	52.2	21.4
Queue Length 50th (ft)	113	111	53	95	128	68	153	0	270	138
Queue Length 95th (ft)	#233	160	#121	#167	214	123	#228	0	#455	194
Internal Link Dist (ft)		1219		1008			1659			690
Turn Bay Length (ft)	400		215		200	225		225	250	
Base Capacity (vph)	242	685	154	391	843	262	696	503	589	1325
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.57	0.62	0.82	0.51	0.48	0.77	0.15	0.86	0.49

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	370	0	90	305	410	120	510	70	480	535	85
Future Volume (veh/h)	190	370	0	90	305	410	120	510	70	480	535	85
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	1737	1870	1870	1737	1737
Adj Flow Rate, veh/h	200	389	0	95	321	432	126	537	74	505	563	89
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	11	2	2	11	11
Cap, veh/h	237	654	0	122	408	668	160	643	309	546	1176	185
Arrive On Green	0.13	0.18	0.00	0.07	0.11	0.11	0.09	0.19	0.19	0.31	0.41	0.41
Sat Flow, veh/h	1781	3647	0	1781	3554	1585	1781	3300	1585	1781	2856	450
Grp Volume(v), veh/h	200	389	0	95	321	432	126	537	74	505	325	327
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1777	1585	1781	1650	1585	1781	1650	1656
Q Serve(g_s), s	9.2	8.4	0.0	4.4	7.4	9.6	5.8	13.1	3.3	23.0	12.0	12.1
Cycle Q Clear(g_c), s	9.2	8.4	0.0	4.4	7.4	9.6	5.8	13.1	3.3	23.0	12.0	12.1
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	237	654	0	122	408	668	160	643	309	546	680	682
V/C Ratio(X)	0.85	0.59	0.00	0.78	0.79	0.65	0.79	0.84	0.24	0.92	0.48	0.48
Avail Cap(c_a), veh/h	253	654	0	162	408	668	275	734	352	615	683	685
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.4	31.3	0.0	38.4	36.0	19.3	37.3	32.4	28.4	28.1	18.0	18.0
Incr Delay (d2), s/veh	21.3	1.5	0.0	16.1	9.8	2.2	8.4	7.5	0.4	18.8	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	3.5	0.0	2.4	3.6	6.4	2.8	5.6	1.2	11.9	4.3	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.8	32.7	0.0	54.4	45.9	21.4	45.7	39.8	28.8	46.8	18.5	18.6
LnGrp LOS	E	C	A	D	D	C	D	D	C	D	B	B
Approach Vol, veh/h		589			848			737			1157	
Approach Delay, s/veh		40.9			34.4			39.7			30.9	
Approach LOS		D			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.7	21.7	10.4	20.8	12.6	39.8	16.2	15.0
Change Period (Y+Rc), s	5.1	5.4	* 4.7	5.4	5.1	5.4	5.1	5.4
Max Green Setting (Gmax), s	28.9	18.6	* 7.6	14.3	12.9	34.6	11.9	9.6
Max Q Clear Time (g_c+I1), s	25.0	15.1	6.4	10.4	7.8	14.1	11.2	11.6
Green Ext Time (p_c), s	0.7	1.2	0.0	0.8	0.1	3.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	35.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	787	157	629	191	152
v/c Ratio	0.89	0.77	0.50	0.59	0.37
Control Delay	30.7	60.1	8.0	34.8	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	30.7	60.1	8.0	34.8	7.6
Queue Length 50th (ft)	280	71	113	80	0
Queue Length 95th (ft)	#564	#180	225	139	42
Internal Link Dist (ft)	2554		884	1920	
Turn Bay Length (ft)		200		120	
Base Capacity (vph)	974	204	1343	510	564
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.81	0.77	0.47	0.37	0.27

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	540	160	140	560	170	135
Future Volume (veh/h)	540	160	140	560	170	135
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	607	180	157	629	191	152
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	688	204	197	1288	264	235
Arrive On Green	0.50	0.50	0.11	0.69	0.15	0.15
Sat Flow, veh/h	1386	411	1781	1870	1781	1585
Grp Volume(v), veh/h	0	787	157	629	191	152
Grp Sat Flow(s),veh/h/ln	0	1796	1781	1870	1781	1585
Q Serve(g_s), s	0.0	24.1	5.3	9.7	6.3	5.5
Cycle Q Clear(g_c), s	0.0	24.1	5.3	9.7	6.3	5.5
Prop In Lane		0.23	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	891	197	1288	264	235
V/C Ratio(X)	0.00	0.88	0.80	0.49	0.72	0.65
Avail Cap(c_a), veh/h	0	1084	232	1525	581	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	13.8	26.6	4.5	24.9	24.6
Incr Delay (d2), s/veh	0.0	7.6	15.0	0.3	3.7	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.8	2.9	2.4	2.8	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	21.4	41.5	4.8	28.6	27.6
LnGrp LOS	A	C	D	A	C	C
Approach Vol, veh/h	787			786	343	
Approach Delay, s/veh	21.4			12.1	28.2	
Approach LOS	C			B	C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Timer - Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		14.1	11.8	35.4				47.2
Change Period (Y+Rc), s		5.0	5.0	5.0				5.0
Max Green Setting (Gmax), s		20.0	8.0	37.0				50.0
Max Q Clear Time (g_c+I1), s		8.3	7.3	26.1				11.7
Green Ext Time (p_c), s		0.8	0.0	4.3				5.0

Intersection Summary			
HCM 6th Ctrl Delay			18.8
HCM 6th LOS			B

Lane Group	EBT	EBR	WBT	SEL	SET	SER	NWL	NWT	NWR
Lane Group Flow (vph)	440	293	418	60	348	60	386	332	27
v/c Ratio	0.83	0.45	0.86	0.38	0.80	0.12	0.89	0.43	0.04
Control Delay	42.8	11.2	47.0	45.3	43.8	0.5	55.7	19.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.8	11.2	47.0	45.3	43.8	0.5	55.7	19.7	0.1
Queue Length 50th (ft)	218	39	207	31	175	0	201	128	0
Queue Length 95th (ft)	#405	112	#401	72	273	0	#384	201	0
Internal Link Dist (ft)	884		1579		1178			1731	
Turn Bay Length (ft)		100		100			200		50
Base Capacity (vph)	549	660	502	177	549	590	454	825	786
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.44	0.83	0.34	0.63	0.10	0.85	0.40	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	45	360	270	25	315	45	55	320	55	355	305	25
Future Volume (veh/h)	45	360	270	25	315	45	55	320	55	355	305	25
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	1781	1870	1870	1781	1870
Adj Flow Rate, veh/h	49	391	293	27	342	49	60	348	60	386	332	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	8	2	2	8	2
Cap, veh/h	87	502	545	58	389	53	82	410	365	427	755	672
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.05	0.23	0.23	0.24	0.42	0.42
Sat Flow, veh/h	108	1460	1585	30	1130	154	1781	1781	1585	1781	1781	1585
Grp Volume(v), veh/h	440	0	293	418	0	0	60	348	60	386	332	27
Grp Sat Flow(s),veh/h/ln	1568	0	1585	1314	0	0	1781	1781	1585	1781	1781	1585
Q Serve(g_s), s	0.0	0.0	11.9	5.5	0.0	0.0	2.7	14.9	2.4	16.8	10.6	0.8
Cycle Q Clear(g_c), s	19.9	0.0	11.9	25.3	0.0	0.0	2.7	14.9	2.4	16.8	10.6	0.8
Prop In Lane	0.11		1.00	0.06		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	589	0	545	500	0	0	82	410	365	427	755	672
V/C Ratio(X)	0.75	0.00	0.54	0.84	0.00	0.00	0.73	0.85	0.16	0.90	0.44	0.04
Avail Cap(c_a), veh/h	598	0	553	508	0	0	185	577	513	475	867	771
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	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	0.0	21.1	23.9	0.0	0.0	37.7	29.4	24.6	29.5	16.3	13.5
Incr Delay (d2), s/veh	5.0	0.0	1.0	11.5	0.0	0.0	11.8	8.3	0.2	19.5	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	0.0	4.3	7.8	0.0	0.0	1.4	7.0	0.9	9.1	4.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.1	0.0	22.1	35.3	0.0	0.0	49.4	37.7	24.8	49.0	16.7	13.5
LnGrp LOS	C	A	C	D	A	A	D	D	C	D	B	B
Approach Vol, veh/h		733			418			468			745	
Approach Delay, s/veh		25.7			35.3			37.6			33.3	
Approach LOS		C			D			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	39.0		32.6	23.9	23.5		32.6				
Change Period (Y+Rc), s	* 4.7	5.1		5.1	* 4.7	5.1		5.1				
Max Green Setting (Gmax), s	* 8.3	38.9		27.9	* 21	25.9		27.9				
Max Q Clear Time (g_c+I1), s	4.7	12.6		21.9	18.8	16.9		27.3				
Green Ext Time (p_c), s	0.0	2.1		2.0	0.3	1.5		0.2				
Intersection Summary												
HCM 6th Ctrl Delay			32.2									
HCM 6th LOS			C									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	505	435	532	429
v/c Ratio	0.79	0.86	0.85	0.62
Control Delay	25.4	35.7	29.3	16.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	25.4	35.7	29.3	16.9
Queue Length 50th (ft)	144	134	149	105
Queue Length 95th (ft)	#301	#296	#313	186
Internal Link Dist (ft)	1579	1246	1034	1250
Turn Bay Length (ft)				
Base Capacity (vph)	724	573	746	832
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.70	0.76	0.71	0.52

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	270	95	145	220	35	85	265	140	25	280	90
Future Volume (veh/h)	100	270	95	145	220	35	85	265	140	25	280	90
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	109	293	103	158	239	38	92	288	152	27	304	98
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	398	127	274	337	47	178	386	186	110	511	157
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	264	1056	338	419	895	126	203	996	480	51	1320	406
Grp Volume(v), veh/h	505	0	0	435	0	0	532	0	0	429	0	0
Grp Sat Flow(s),veh/h/ln	1658	0	0	1439	0	0	1679	0	0	1778	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	11.2	0.0	0.0	11.2	0.0	0.0	11.5	0.0	0.0	8.1	0.0	0.0
Prop In Lane	0.22		0.20	0.36		0.09	0.17		0.29	0.06		0.23
Lane Grp Cap(c), veh/h	728	0	0	658	0	0	750	0	0	779	0	0
V/C Ratio(X)	0.69	0.00	0.00	0.66	0.00	0.00	0.71	0.00	0.00	0.55	0.00	0.00
Avail Cap(c_a), veh/h	1065	0	0	956	0	0	1065	0	0	1123	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	11.6	0.0	0.0	11.4	0.0	0.0	11.3	0.0	0.0	10.4	0.0	0.0
Incr Delay (d2), s/veh	1.2	0.0	0.0	1.1	0.0	0.0	1.3	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.0	2.9	0.0	0.0	3.5	0.0	0.0	2.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.8	0.0	0.0	12.6	0.0	0.0	12.6	0.0	0.0	11.1	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		505			435			532			429	
Approach Delay, s/veh		12.8			12.6			12.6			11.1	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		21.4		20.9		21.4		20.9				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		25.0		25.0		25.0		25.0				
Max Q Clear Time (g_c+I1), s		13.5		13.2		10.1		13.2				
Green Ext Time (p_c), s		2.9		2.7		2.4		2.4				
Intersection Summary												
HCM 6th Ctrl Delay			12.3									
HCM 6th LOS			B									

Intersection	
Intersection Delay, s/veh	19.5
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	155	0	45	1	2	0	55	305	1	0	350	200
Future Vol, veh/h	155	0	45	1	2	0	55	305	1	0	350	200
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	194	0	56	1	3	0	69	381	1	0	438	250
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	15	10.6	22.6	19.1
HCM LOS	B	B	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	15%	78%	33%	0%	0%
Vol Thru, %	84%	0%	67%	100%	0%
Vol Right, %	0%	23%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	361	200	3	350	200
LT Vol	55	155	1	0	0
Through Vol	305	0	2	350	0
RT Vol	1	45	0	0	200
Lane Flow Rate	451	250	4	438	250
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.724	0.454	0.008	0.732	0.369
Departure Headway (Hd)	5.778	6.534	7.581	6.023	5.312
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	623	550	475	599	675
Service Time	3.832	4.594	5.581	3.78	3.068
HCM Lane V/C Ratio	0.724	0.455	0.008	0.731	0.37
HCM Control Delay	22.6	15	10.6	23.6	11.2
HCM Lane LOS	C	B	B	C	B
HCM 95th-tile Q	6.1	2.3	0	6.2	1.7

Lane Group	NBL	NBT	NBR	SBL	SBT	SET	SER	NWL	NWT
Lane Group Flow (vph)	330	456	258	110	462	390	324	253	528
v/c Ratio	0.94	0.69	0.16	0.71	0.96	0.96	0.40	0.99	0.74
Control Delay	87.9	41.7	0.2	84.2	79.7	86.6	15.6	111.0	41.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.9	41.7	0.2	84.2	79.7	86.6	15.6	111.0	41.2
Queue Length 50th (ft)	296	336	0	99	411	352	112	~245	401
Queue Length 95th (ft)	#474	494	0	160	#628	#556	187	#423	548
Internal Link Dist (ft)		639			101	192			1578
Turn Bay Length (ft)			60	110			100	190	
Base Capacity (vph)	380	685	1583	230	511	428	831	256	738
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.67	0.16	0.48	0.90	0.91	0.39	0.99	0.72

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	300	415	235	100	410	10	0	355	295	230	410	70
Future Volume (veh/h)	300	415	235	100	410	10	0	355	295	230	410	70
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	1737	1870	1870	1737	1737	0	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	330	456	0	110	451	11	0	390	324	253	451	77
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	11	2	2	11	11	0	8	2	2	8	8
Cap, veh/h	352	700		133	473	12	0	413	681	257	608	104
Arrive On Green	0.20	0.40	0.00	0.07	0.28	0.28	0.00	0.23	0.23	0.14	0.41	0.41
Sat Flow, veh/h	1781	1737	1585	1781	1688	41	0	1781	1585	1781	1483	253
Grp Volume(v), veh/h	330	456	0	110	0	462	0	390	324	253	0	528
Grp Sat Flow(s),veh/h/ln	1781	1737	1585	1781	0	1730	0	1781	1585	1781	0	1736
Q Serve(g_s), s	24.6	28.6	0.0	8.2	0.0	35.3	0.0	29.0	19.7	19.1	0.0	34.7
Cycle Q Clear(g_c), s	24.6	28.6	0.0	8.2	0.0	35.3	0.0	29.0	19.7	19.1	0.0	34.7
Prop In Lane	1.00		1.00	1.00		0.02	0.00		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	352	700		133	0	484	0	413	681	257	0	712
V/C Ratio(X)	0.94	0.65		0.83	0.00	0.95	0.00	0.94	0.48	0.99	0.00	0.74
Avail Cap(c_a), veh/h	381	700		230	0	514	0	431	697	257	0	729
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.2	32.5	0.0	61.5	0.0	47.6	0.0	50.9	27.5	57.5	0.0	33.7
Incr Delay (d2), s/veh	28.6	1.7	0.0	4.9	0.0	27.1	0.0	28.3	0.2	52.1	0.0	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.6	12.1	0.0	3.9	0.0	18.9	0.0	16.0	7.5	12.2	0.0	15.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.9	34.3	0.0	66.3	0.0	74.8	0.0	79.2	27.7	109.6	0.0	37.1
LnGrp LOS	F	C		E	A	E	A	E	C	F	A	D
Approach Vol, veh/h		786	A		572			714			781	
Approach Delay, s/veh		54.2			73.1			55.8			60.6	
Approach LOS		D			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	14.7	59.7	24.0	36.4	31.2	43.1		60.4
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	* 5.4		5.1
Max Green Setting (Gmax), s	17.4	50.6	19.4	32.6	28.8	* 40		56.6
Max Q Clear Time (g_c+I1), s	10.2	30.6	21.1	31.0	26.6	37.3		36.7
Green Ext Time (p_c), s	0.0	0.8	0.0	0.3	0.0	0.4		1.1

Intersection Summary	
HCM 6th Ctrl Delay	60.2
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	49	261	114	408	179	891	179	864
v/c Ratio	0.40	0.65	0.63	0.74	0.77	0.83	0.77	0.81
Control Delay	51.8	29.3	56.7	31.5	62.4	35.7	62.4	34.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.8	29.3	56.7	31.5	62.4	35.7	62.4	34.4
Queue Length 50th (ft)	28	91	64	174	102	242	102	232
Queue Length 95th (ft)	67	170	#147	286	#229	#374	#229	#342
Internal Link Dist (ft)		615		635		1224		2566
Turn Bay Length (ft)			120		135		135	
Base Capacity (vph)	127	594	193	658	236	1169	236	1170
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.44	0.59	0.62	0.76	0.76	0.76	0.74

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	90	150	105	135	240	165	750	70	165	745	50
Future Volume (veh/h)	45	90	150	105	135	240	165	750	70	165	745	50
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	1737	1737	1870	1737	1737
Adj Flow Rate, veh/h	49	98	163	114	147	261	179	815	76	179	810	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	2	11	11
Cap, veh/h	104	154	256	154	164	291	215	951	89	215	979	65
Arrive On Green	0.06	0.24	0.24	0.09	0.27	0.27	0.12	0.31	0.31	0.12	0.31	0.31
Sat Flow, veh/h	1781	631	1050	1781	604	1073	1781	3051	285	1781	3140	209
Grp Volume(v), veh/h	49	0	261	114	0	408	179	441	450	179	426	438
Grp Sat Flow(s),veh/h/ln	1781	0	1681	1781	0	1677	1781	1650	1686	1781	1650	1699
Q Serve(g_s), s	2.3	0.0	11.9	5.3	0.0	20.0	8.4	21.4	21.4	8.4	20.4	20.4
Cycle Q Clear(g_c), s	2.3	0.0	11.9	5.3	0.0	20.0	8.4	21.4	21.4	8.4	20.4	20.4
Prop In Lane	1.00		0.62	1.00		0.64	1.00		0.17	1.00		0.12
Lane Grp Cap(c), veh/h	104	0	409	154	0	455	215	515	526	215	515	530
V/C Ratio(X)	0.47	0.00	0.64	0.74	0.00	0.90	0.83	0.86	0.86	0.83	0.83	0.83
Avail Cap(c_a), veh/h	127	0	530	192	0	529	236	588	601	236	588	606
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	0.0	28.9	38.0	0.0	29.9	36.7	27.6	27.6	36.7	27.2	27.2
Incr Delay (d2), s/veh	3.3	0.0	1.7	11.1	0.0	16.4	20.6	10.9	10.7	20.6	8.6	8.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	4.8	2.8	0.0	9.8	4.8	9.6	9.8	4.8	8.9	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.1	0.0	30.6	49.1	0.0	46.3	57.2	38.4	38.2	57.2	35.8	35.6
LnGrp LOS	D	A	C	D	A	D	E	D	D	E	D	D
Approach Vol, veh/h		310			522			1070			1043	
Approach Delay, s/veh		32.4			46.9			41.5			39.4	
Approach LOS		C			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	32.0	12.5	25.9	15.0	32.0	10.1	28.2				
Change Period (Y+Rc), s	* 4.7	5.4	5.1	5.1	* 4.7	5.4	5.1	5.1				
Max Green Setting (Gmax), s	* 11	30.4	9.2	26.9	* 11	30.4	6.1	26.9				
Max Q Clear Time (g_c+I1), s	10.4	23.4	7.3	13.9	10.4	22.4	4.3	22.0				
Green Ext Time (p_c), s	0.0	3.2	0.0	1.3	0.0	3.4	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay			40.7									
HCM 6th LOS			D									

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	NBT	NBR	SBL	SBT	SEL	SET	SER	NWL	NWT	NWR
Lane Group Flow (vph)	462	212	120	294	5	549	207	288	652	82
v/c Ratio	0.95	0.27	0.41	0.96	0.06	0.93	0.46	0.94	0.51	0.12
Control Delay	69.4	4.5	46.2	89.2	52.0	69.2	9.2	83.6	28.7	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.4	4.5	46.2	89.2	52.0	69.2	9.2	83.6	28.7	0.7
Queue Length 50th (ft)	318	14	77	207	4	203	0	203	178	0
Queue Length 95th (ft)	#514	35	136	#382	16	#310	64	#368	273	4
Internal Link Dist (ft)	479			5386		3214			2844	
Turn Bay Length (ft)		100	100		220			220		100
Base Capacity (vph)	502	775	290	305	81	588	449	307	1271	690
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.27	0.41	0.96	0.06	0.93	0.46	0.94	0.51	0.12

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	200	225	195	110	260	10	5	505	190	265	600	75
Future Volume (veh/h)	200	225	195	110	260	10	5	505	190	265	600	75
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	1781	1870	1870	1781	1870
Adj Flow Rate, veh/h	217	245	212	120	283	11	5	549	153	288	652	82
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	8	2	2	8	2
Cap, veh/h	231	261	702	292	293	11	11	594	278	310	1161	543
Arrive On Green	0.27	0.27	0.27	0.16	0.16	0.16	0.01	0.18	0.18	0.17	0.34	0.34
Sat Flow, veh/h	858	969	1585	1781	1788	70	1781	3385	1585	1781	3385	1585
Grp Volume(v), veh/h	462	0	212	120	0	294	5	549	153	288	652	82
Grp Sat Flow(s),veh/h/ln	1827	0	1585	1781	0	1858	1781	1692	1585	1781	1692	1585
Q Serve(g_s), s	27.0	0.0	9.4	6.6	0.0	17.2	0.3	17.5	9.6	17.4	17.1	3.9
Cycle Q Clear(g_c), s	27.0	0.0	9.4	6.6	0.0	17.2	0.3	17.5	9.6	17.4	17.1	3.9
Prop In Lane	0.47		1.00	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	492	0	702	292	0	304	11	594	278	310	1161	543
V/C Ratio(X)	0.94	0.00	0.30	0.41	0.00	0.97	0.44	0.92	0.55	0.93	0.56	0.15
Avail Cap(c_a), veh/h	503	0	712	292	0	304	81	594	278	310	1161	543
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	0.0	19.6	41.0	0.0	45.4	54.1	44.4	41.1	44.5	29.2	24.9
Incr Delay (d2), s/veh	25.4	0.0	0.2	0.9	0.0	42.5	23.9	20.3	2.3	33.5	0.6	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	15.1	0.0	3.2	2.8	0.0	11.1	0.2	8.6	3.7	10.1	6.5	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.5	0.0	19.8	41.9	0.0	87.9	78.0	64.7	43.4	78.0	29.9	25.0
LnGrp LOS	E	A	B	D	A	F	E	E	D	E	C	C
Approach Vol, veh/h		674			414			707			1022	
Approach Delay, s/veh		50.4			74.6			60.2			43.0	
Approach LOS		D			E			E			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		34.9	24.4	25.7		24.4	6.1	44.0				
Change Period (Y+Rc), s		5.4	5.4	6.5		6.5	5.4	6.5				
Max Green Setting (Gmax), s		30.1	19.0	19.2		17.9	5.0	33.2				
Max Q Clear Time (g_c+I1), s		29.0	19.4	19.5		19.2	2.3	19.1				
Green Ext Time (p_c), s		0.4	0.0	0.0		0.0	0.0	3.5				

Intersection Summary		
HCM 6th Ctrl Delay		53.7
HCM 6th LOS		D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	158	174	250	255	418	65	701	245	636	652
v/c Ratio	0.93	0.56	1.02	0.59	0.48	0.47	0.94	0.44	1.03	0.39
Control Delay	102.0	45.2	107.3	48.2	14.3	59.0	61.0	7.5	80.1	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	102.0	45.2	107.3	48.2	14.3	59.0	61.0	7.5	80.1	17.3
Queue Length 50th (ft)	101	50	161	85	133	40	228	0	~402	126
Queue Length 95th (ft)	#279	83	#402	124	211	97	#434	69	#834	239
Internal Link Dist (ft)		1219		1008			1659			1250
Turn Bay Length (ft)	400		215		200	225		225	250	
Base Capacity (vph)	169	309	246	434	866	157	758	556	615	1692
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.56	1.02	0.59	0.48	0.41	0.92	0.44	1.03	0.39

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	125	35	230	235	385	60	645	225	585	565	35
Future Volume (veh/h)	145	125	35	230	235	385	60	645	225	585	565	35
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	1737	1870	1870	1737	1737
Adj Flow Rate, veh/h	158	136	38	250	255	418	65	701	245	636	614	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	2	2	11	11
Cap, veh/h	177	145	39	258	333	721	84	773	371	643	1731	107
Arrive On Green	0.10	0.05	0.05	0.14	0.09	0.09	0.05	0.23	0.23	0.36	0.55	0.55
Sat Flow, veh/h	1781	2764	748	1781	3554	1585	1781	3300	1585	1781	3157	195
Grp Volume(v), veh/h	158	86	88	250	255	418	65	701	245	636	321	331
Grp Sat Flow(s),veh/h/ln	1781	1777	1736	1781	1777	1585	1781	1650	1585	1781	1650	1702
Q Serve(g_s), s	8.7	4.8	5.0	13.9	7.0	9.3	3.6	20.5	13.9	35.3	10.8	10.9
Cycle Q Clear(g_c), s	8.7	4.8	5.0	13.9	7.0	9.3	3.6	20.5	13.9	35.3	10.8	10.9
Prop In Lane	1.00		0.43	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	177	93	91	258	333	721	84	773	371	643	905	933
V/C Ratio(X)	0.89	0.92	0.97	0.97	0.77	0.58	0.77	0.91	0.66	0.99	0.35	0.36
Avail Cap(c_a), veh/h	177	93	91	258	333	721	165	794	381	643	905	933
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.2	46.9	47.0	42.3	44.0	20.1	46.8	37.0	34.5	31.5	12.6	12.6
Incr Delay (d2), s/veh	38.4	68.7	84.5	47.2	10.3	1.2	14.0	13.9	4.0	32.4	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	3.8	4.2	9.3	3.5	6.9	1.9	9.4	5.6	19.9	3.7	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.6	115.6	131.5	89.4	54.3	21.2	60.8	50.9	38.5	64.0	12.8	12.8
LnGrp LOS	F	F	F	F	D	C	E	D	D	E	B	B
Approach Vol, veh/h		332			923			1011			1288	
Approach Delay, s/veh		104.1			48.8			48.5			38.1	
Approach LOS		F			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	41.0	28.7	19.1	10.6	9.8	59.9	15.0	14.7
Change Period (Y+Rc), s	5.1	5.4	* 4.7	5.4	5.1	5.4	5.1	5.4
Max Green Setting (Gmax), s	35.9	23.9	* 14	5.2	9.2	50.6	9.9	9.3
Max Q Clear Time (g_c+I1), s	37.3	22.5	15.9	7.0	5.6	12.9	10.7	11.3
Green Ext Time (p_c), s	0.0	0.8	0.0	0.0	0.0	4.1	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	50.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	261	174	5	223	875	718
v/c Ratio	0.65	0.25	0.01	0.95	0.52	0.74
Control Delay	24.9	0.8	12.2	80.5	10.7	23.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.9	0.8	12.2	80.5	10.7	23.0
Queue Length 50th (ft)	76	0	1	75	83	99
Queue Length 95th (ft)	138	0	7	#229	178	#201
Internal Link Dist (ft)		226	142		628	922
Turn Bay Length (ft)	70			60		
Base Capacity (vph)	664	931	752	234	1844	1116
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.19	0.01	0.95	0.47	0.64

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	240	0	160	3	1	1	205	790	15	0	560	100
Future Volume (veh/h)	240	0	160	3	1	1	205	790	15	0	560	100
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	1737	1737	0	1737	1737
Adj Flow Rate, veh/h	261	0	174	3	1	1	223	859	16	0	609	109
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	11	11	0	11	11
Cap, veh/h	506	0	367	237	79	48	269	1833	34	0	824	147
Arrive On Green	0.23	0.00	0.23	0.23	0.23	0.23	0.15	0.55	0.55	0.00	0.29	0.29
Sat Flow, veh/h	1415	0	1585	486	340	207	1781	3314	62	0	2884	500
Grp Volume(v), veh/h	261	0	174	5	0	0	223	428	447	0	359	359
Grp Sat Flow(s),veh/h/ln	1415	0	1585	1033	0	0	1781	1650	1726	0	1650	1647
Q Serve(g_s), s	2.7	0.0	4.4	0.0	0.0	0.0	5.6	7.3	7.3	0.0	9.1	9.1
Cycle Q Clear(g_c), s	7.1	0.0	4.4	4.4	0.0	0.0	5.6	7.3	7.3	0.0	9.1	9.1
Prop In Lane	1.00		1.00	0.60		0.20	1.00		0.04	0.00		0.30
Lane Grp Cap(c), veh/h	506	0	367	363	0	0	269	913	955	0	486	485
V/C Ratio(X)	0.52	0.00	0.47	0.01	0.00	0.00	0.83	0.47	0.47	0.00	0.74	0.74
Avail Cap(c_a), veh/h	941	0	854	785	0	0	269	1066	1115	0	640	639
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	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	16.3	0.0	15.4	13.8	0.0	0.0	19.1	6.3	6.3	0.0	14.8	14.8
Incr Delay (d2), s/veh	0.8	0.0	1.0	0.0	0.0	0.0	19.2	0.4	0.4	0.0	3.2	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	1.5	0.0	0.0	0.0	3.5	1.8	1.8	0.0	3.3	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.1	0.0	16.4	13.9	0.0	0.0	38.3	6.6	6.6	0.0	17.9	18.0
LnGrp LOS	B	A	B	B	A	A	D	A	A	A	B	B
Approach Vol, veh/h		435			5			1098			718	
Approach Delay, s/veh		16.8			13.9			13.1			18.0	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		30.7		15.7	12.0	18.7		15.7				
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s		30.0		25.0	7.0	18.0		25.0				
Max Q Clear Time (g_c+I1), s		9.3		9.1	7.6	11.1		6.4				
Green Ext Time (p_c), s		5.8		1.7	0.0	2.5		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			15.4									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	207	603	103	272	489	994	168	413	147
v/c Ratio	0.78	0.92	0.25	0.91	0.65	0.93	0.86	0.51	0.18
Control Delay	57.1	57.0	3.9	71.5	30.5	41.9	77.5	18.8	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.1	57.0	3.9	71.5	30.5	41.9	77.5	18.8	2.9
Queue Length 50th (ft)	113	178	0	153	107	256	95	154	0
Queue Length 95th (ft)	#213	#280	21	#298	162	#384	#210	237	30
Internal Link Dist (ft)		625			462	348		628	
Turn Bay Length (ft)	250		80	130			225		325
Base Capacity (vph)	287	657	411	302	758	1090	195	827	841
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.92	0.25	0.90	0.65	0.91	0.86	0.50	0.17

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	555	95	250	290	160	0	600	315	155	380	135
Future Volume (veh/h)	190	555	95	250	290	160	0	600	315	155	380	135
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	0	1737	1737	1870	1737	1870
Adj Flow Rate, veh/h	207	603	0	272	315	174	0	652	0	168	413	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	0	11	11	2	11	2
Cap, veh/h	248	701		312	520	280	0	837		209	757	
Arrive On Green	0.14	0.20	0.00	0.18	0.23	0.23	0.00	0.25	0.00	0.12	0.44	0.00
Sat Flow, veh/h	1781	3554	1585	1781	2228	1203	0	3474	0	1781	1737	1585
Grp Volume(v), veh/h	207	603	0	272	250	239	0	652	0	168	413	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1654	0	1650	0	1781	1737	1585
Q Serve(g_s), s	9.0	13.0	0.0	11.8	9.9	10.3	0.0	14.6	0.0	7.3	13.9	0.0
Cycle Q Clear(g_c), s	9.0	13.0	0.0	11.8	9.9	10.3	0.0	14.6	0.0	7.3	13.9	0.0
Prop In Lane	1.00		1.00	1.00		0.73	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	248	701		312	414	386	0	837		209	757	
V/C Ratio(X)	0.83	0.86		0.87	0.60	0.62	0.00	0.78		0.80	0.55	
Avail Cap(c_a), veh/h	326	745		344	414	386	0	1192		223	947	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.2	30.7	0.0	31.8	27.1	27.2	0.0	27.5	0.0	34.1	16.5	0.0
Incr Delay (d2), s/veh	13.3	9.6	0.0	19.7	2.5	3.0	0.0	2.1	0.0	17.9	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	6.2	0.0	6.5	4.2	4.1	0.0	5.8	0.0	4.1	5.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.5	40.3	0.0	51.5	29.5	30.3	0.0	29.6	0.0	52.0	17.2	0.0
LnGrp LOS	D	D		D	C	C	A	C		D	B	
Approach Vol, veh/h		810	A		761			652	A		581	A
Approach Delay, s/veh		41.9			37.6			29.6			27.2	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4		6	7	8
Phs Duration (G+Y+Rc), s	14.4	25.2	18.6	21.0		39.6	15.7	23.9
Change Period (Y+Rc), s	5.1	* 5.1	* 4.7	* 5.4		5.1	* 4.7	5.4
Max Green Setting (Gmax), s	9.9	* 29	* 15	* 17		43.2	* 15	17.1
Max Q Clear Time (g_c+I1), s	9.3	16.6	13.8	15.0		15.9	11.0	12.3
Green Ext Time (p_c), s	0.0	3.5	0.1	0.6		2.6	0.2	1.2

Intersection Summary			
HCM 6th Ctrl Delay			34.8
HCM 6th LOS			C

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	272	251	6	321	745	597	196
v/c Ratio	0.97	0.49	0.02	0.82	0.95	1.00	0.31
Control Delay	73.9	6.9	17.0	40.6	46.0	58.9	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.9	6.9	17.0	40.6	46.0	58.9	4.1
Queue Length 50th (ft)	89	0	1	100	126	191	0
Queue Length 95th (ft)	#214	49	9	#217	#225	#376	36
Internal Link Dist (ft)		1120	841		1106	348	
Turn Bay Length (ft)	100						275
Base Capacity (vph)	281	517	308	392	785	599	642
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.49	0.02	0.82	0.95	1.00	0.31

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	1	230	3	2	1	295	685	0	5	545	180
Future Volume (veh/h)	250	1	230	3	2	1	295	685	0	5	545	180
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	272	1	250	3	2	1	321	745	0	5	592	196
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	377	1	316	132	77	22	395	788	0	5	597	510
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.22	0.22	0.00	0.32	0.32	0.32
Sat Flow, veh/h	1414	6	1580	171	383	111	1781	3647	0	16	1854	1585
Grp Volume(v), veh/h	272	0	251	6	0	0	321	745	0	597	0	196
Grp Sat Flow(s),veh/h/ln	1414	0	1586	664	0	0	1781	1777	0	1870	0	1585
Q Serve(g_s), s	2.7	0.0	8.3	0.0	0.0	0.0	9.4	11.4	0.0	17.5	0.0	5.3
Cycle Q Clear(g_c), s	11.0	0.0	8.3	8.3	0.0	0.0	9.4	11.4	0.0	17.5	0.0	5.3
Prop In Lane	1.00		1.00	0.50		0.17	1.00		0.00	0.01		1.00
Lane Grp Cap(c), veh/h	377	0	317	231	0	0	395	788	0	602	0	510
V/C Ratio(X)	0.72	0.00	0.79	0.03	0.00	0.00	0.81	0.95	0.00	0.99	0.00	0.38
Avail Cap(c_a), veh/h	377	0	317	231	0	0	395	788	0	602	0	510
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	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.7	0.0	20.9	18.0	0.0	0.0	20.3	21.1	0.0	18.6	0.0	14.4
Incr Delay (d2), s/veh	6.6	0.0	12.7	0.0	0.0	0.0	12.2	19.9	0.0	34.6	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	3.9	0.1	0.0	0.0	4.9	6.4	0.0	12.4	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	0.0	33.7	18.1	0.0	0.0	32.5	41.0	0.0	53.2	0.0	14.9
LnGrp LOS	C	A	C	B	A	A	C	D	A	D	A	B
Approach Vol, veh/h		523			6			1066			793	
Approach Delay, s/veh		31.4			18.1			38.4			43.7	
Approach LOS		C			B			D			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	16.9	15.7	22.4	15.7
Change Period (Y+Rc), s	* 4.7	* 4.7	4.7	* 4.7
Max Green Setting (Gmax), s	* 12	* 11	17.7	* 11
Max Q Clear Time (g_c+I1), s	13.4	13.0	19.5	10.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	38.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	NBL	NBT	NBR	SBL	SBT	SET	SER	NWL	NWT
Lane Group Flow (vph)	330	456	258	110	462	390	324	253	528
v/c Ratio	0.86	0.63	0.16	0.69	0.90	0.81	0.44	0.83	0.45
Control Delay	69.3	32.9	0.2	79.7	62.8	66.1	14.7	73.6	31.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.3	32.9	0.2	79.7	62.8	66.1	14.7	73.6	31.2
Queue Length 50th (ft)	270	293	0	92	370	170	88	209	173
Queue Length 95th (ft)	#438	436	0	164	#582	#260	180	#353	241
Internal Link Dist (ft)		639			101	192			1578
Turn Bay Length (ft)			60	110			100	190	
Base Capacity (vph)	496	914	1583	224	662	587	832	393	1454
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.50	0.16	0.49	0.70	0.66	0.39	0.64	0.36

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	300	415	235	100	410	10	0	355	295	230	410	70
Future Volume (veh/h)	300	415	235	100	410	10	0	355	295	230	410	70
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	1737	1870	1870	1737	1737	0	1781	1870	1870	1781	1781
Adj Flow Rate, veh/h	330	456	0	110	451	11	0	390	324	253	451	77
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	11	2	2	11	11	0	8	2	2	8	8
Cap, veh/h	357	714		136	484	12	0	602	600	281	1091	185
Arrive On Green	0.20	0.41	0.00	0.08	0.29	0.29	0.00	0.18	0.18	0.16	0.38	0.38
Sat Flow, veh/h	1781	1737	1585	1781	1688	41	0	3474	1585	1781	2894	491
Grp Volume(v), veh/h	330	456	0	110	0	462	0	390	324	253	263	265
Grp Sat Flow(s),veh/h/ln	1781	1737	1585	1781	0	1730	0	1692	1585	1781	1692	1693
Q Serve(g_s), s	20.3	23.4	0.0	6.8	0.0	29.0	0.0	11.9	17.8	15.5	12.8	12.9
Cycle Q Clear(g_c), s	20.3	23.4	0.0	6.8	0.0	29.0	0.0	11.9	17.8	15.5	12.8	12.9
Prop In Lane	1.00		1.00	1.00		0.02	0.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	357	714		136	0	496	0	602	600	281	638	638
V/C Ratio(X)	0.92	0.64		0.81	0.00	0.93	0.00	0.65	0.54	0.90	0.41	0.42
Avail Cap(c_a), veh/h	508	943		230	0	681	0	604	601	403	754	755
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.7	26.2	0.0	50.7	0.0	38.7	0.0	42.6	27.1	46.1	25.6	25.7
Incr Delay (d2), s/veh	15.0	0.4	0.0	4.3	0.0	13.8	0.0	1.9	0.5	13.8	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	9.3	0.0	3.2	0.0	14.2	0.0	5.1	6.7	7.8	5.1	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.7	26.6	0.0	55.0	0.0	52.5	0.0	44.5	27.6	59.9	25.8	25.8
LnGrp LOS	E	C		D	A	D	A	D	C	E	C	C
Approach Vol, veh/h		786	A		572			714			781	
Approach Delay, s/veh		40.1			53.0			36.8			36.8	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	13.1	51.2	22.2	24.9	27.0	37.4		47.1
Change Period (Y+Rc), s	4.6	5.4	4.6	5.1	4.6	* 5.4		5.1
Max Green Setting (Gmax), s	14.4	60.5	25.2	19.9	31.8	* 44		49.7
Max Q Clear Time (g_c+I1), s	8.8	25.4	17.5	19.8	22.3	31.0		14.9
Green Ext Time (p_c), s	0.0	0.9	0.1	0.0	0.1	1.0		1.1

Intersection Summary	
HCM 6th Ctrl Delay	41.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX H: WATER SUPPLY ASSESSMENT

WATER SUPPLY ASSESSMENT

COUNTY OF MERCED

WINTON COMMUNITY PLAN

JULY 2020

WATER SUPPLY ASSESSMENT

WINTON COMMUNITY PLAN

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July 2020

Project #180445

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SECTION 1 - INTRODUCTION

1.1 - General

Senate Bill 610 (Chapter 643, Statutes of 2001) and Senate Bill 221 (Chapter 642, Statutes of 2001) amended State law, effective January 1, 2002, improves the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 and SB 221 are companion measures that seek to promote more collaborative planning between local water suppliers and cities and counties. Both statutes require detailed information regarding water availability to be provided to city and county decision-makers prior to approval of specified large development projects. Both statutes also require this detailed information to be included in the administrative record that serves as the evidentiary basis for an approval action by the city or county on such projects. Both measures recognize local control and decision-making regarding the availability of water for projects and the approval of projects.

Under SB 610, water assessments must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Water Code 10912[a]) subject to the California Environmental Quality Act (CEQA). Under SB 221, approval by a city or county of certain developments requires an affirmative written verification of sufficient water supply (see Appendix A). However, not every project that is subject to the requirements of SB 610 would also require the mandatory water verification of SB 221. Conversely, not every project that is subject to the requirements of SB 221 would also require the environmental document to contain an SB 610 water assessment.

1.2 - Project Location

The Project is a proposed Community Plan for the unincorporated community of Winton for which the reliability of the water supply and its sufficiency to serve Plan implementation are analyzed.

The location of Winton is depicted on Figures 1-1 and 1-2. Figure 1-3 shows the boundaries, and the Merced County-designated Sphere of Influence, for the Winton Water and Sanitary District which supplies and distributes the groundwater serving the community.

1.3 - Project Description

The Community Plan's proposed land uses are depicted on Figure 1-4. Table 1-1 summarizes the Community Plan-proposed, numbers of proposed residential units and related population.

The Plan proposes that the community continue to be served with water by the Winton Water and Sanitary District.

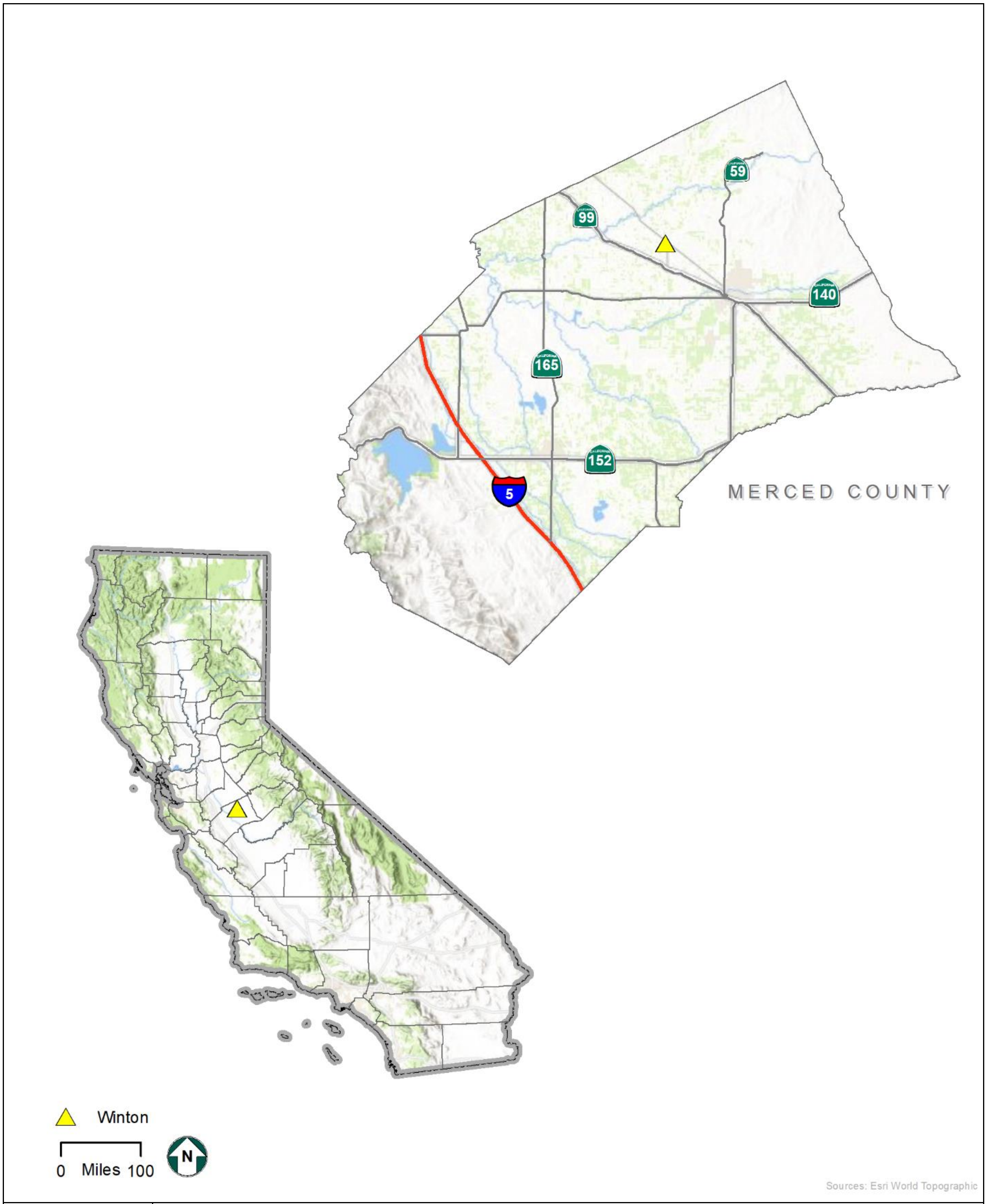


Figure 1-1
Project Location

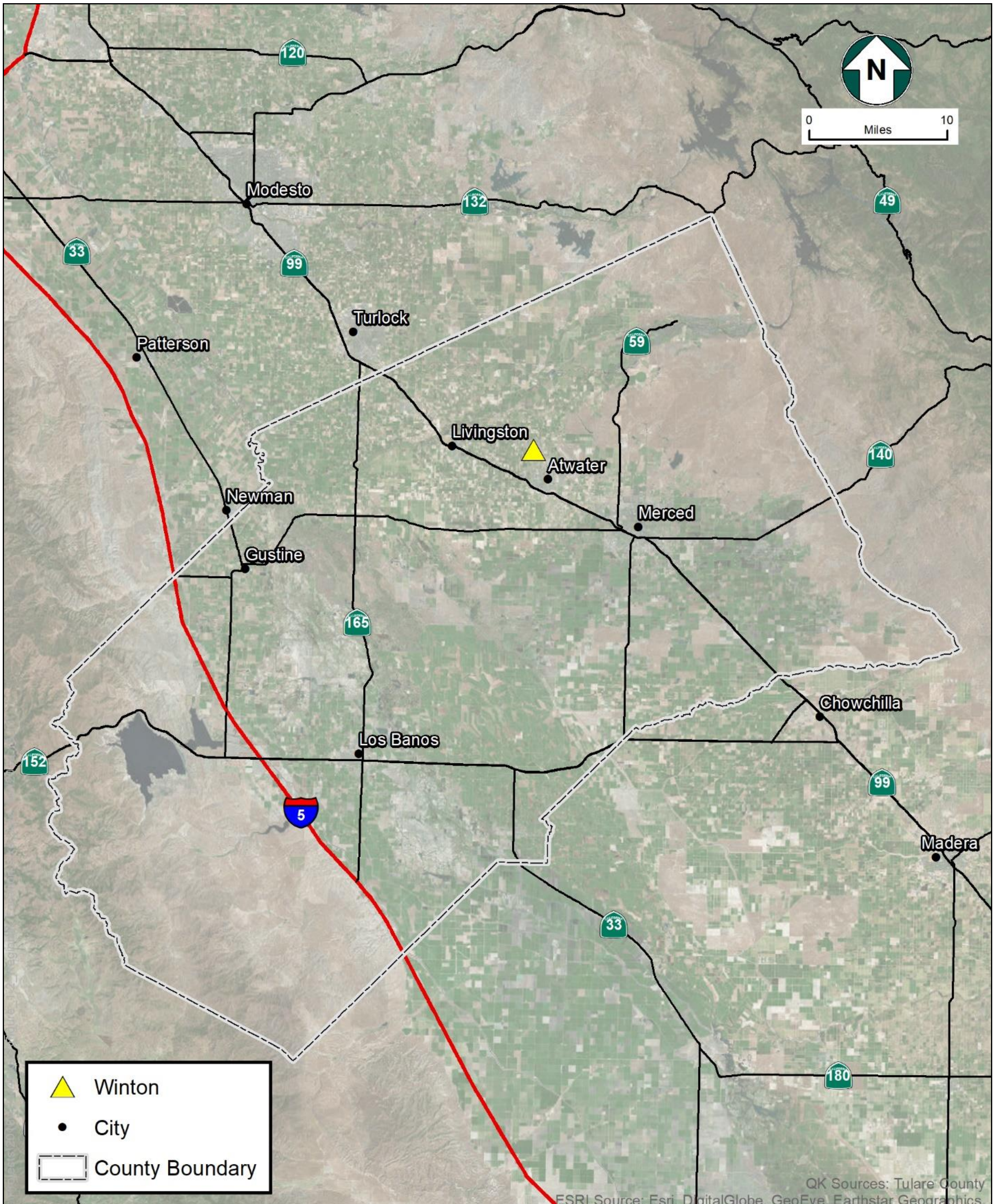


Figure 1-2
Regional Location

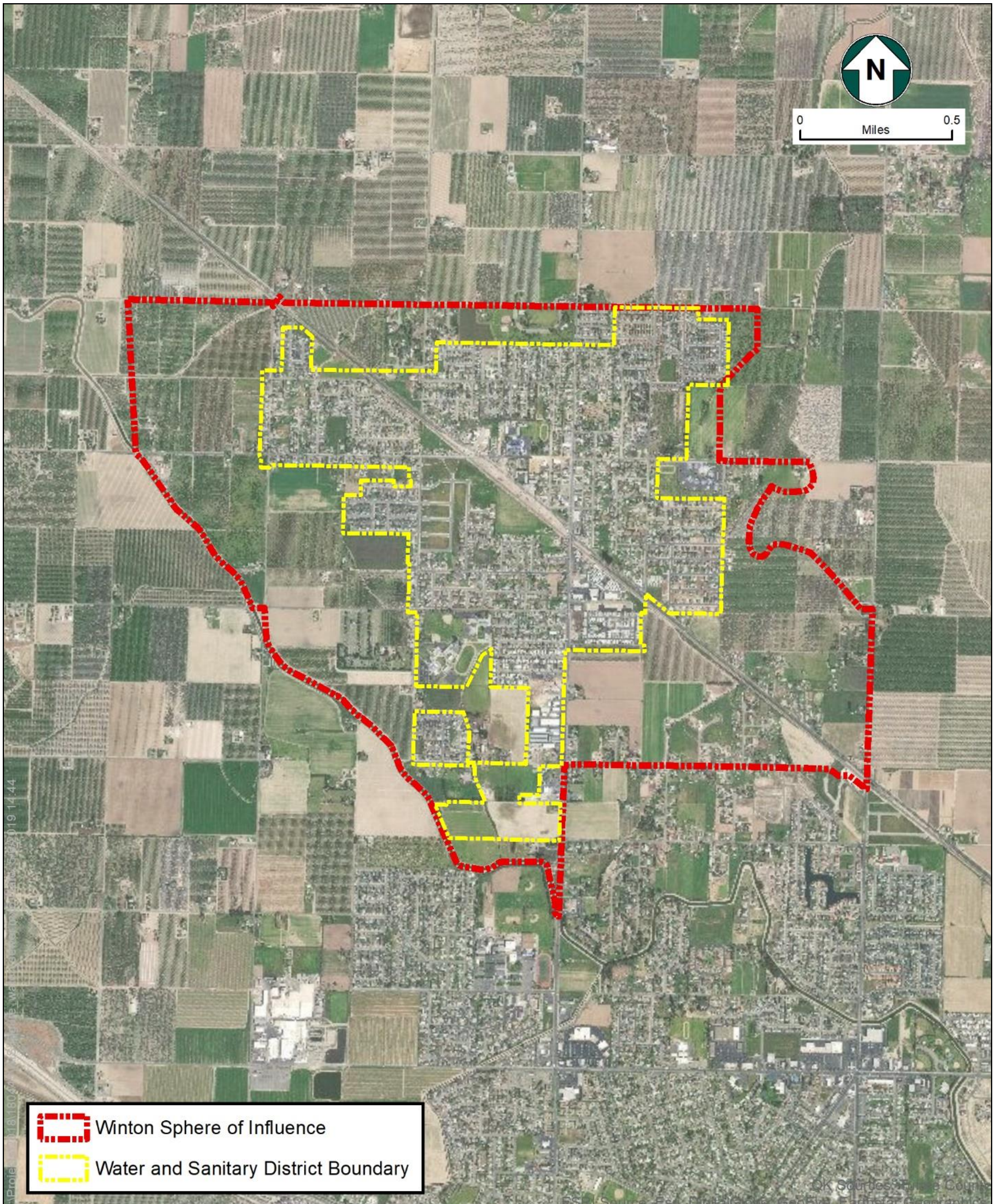


Figure 1-3
Winton Water and Sanitary District

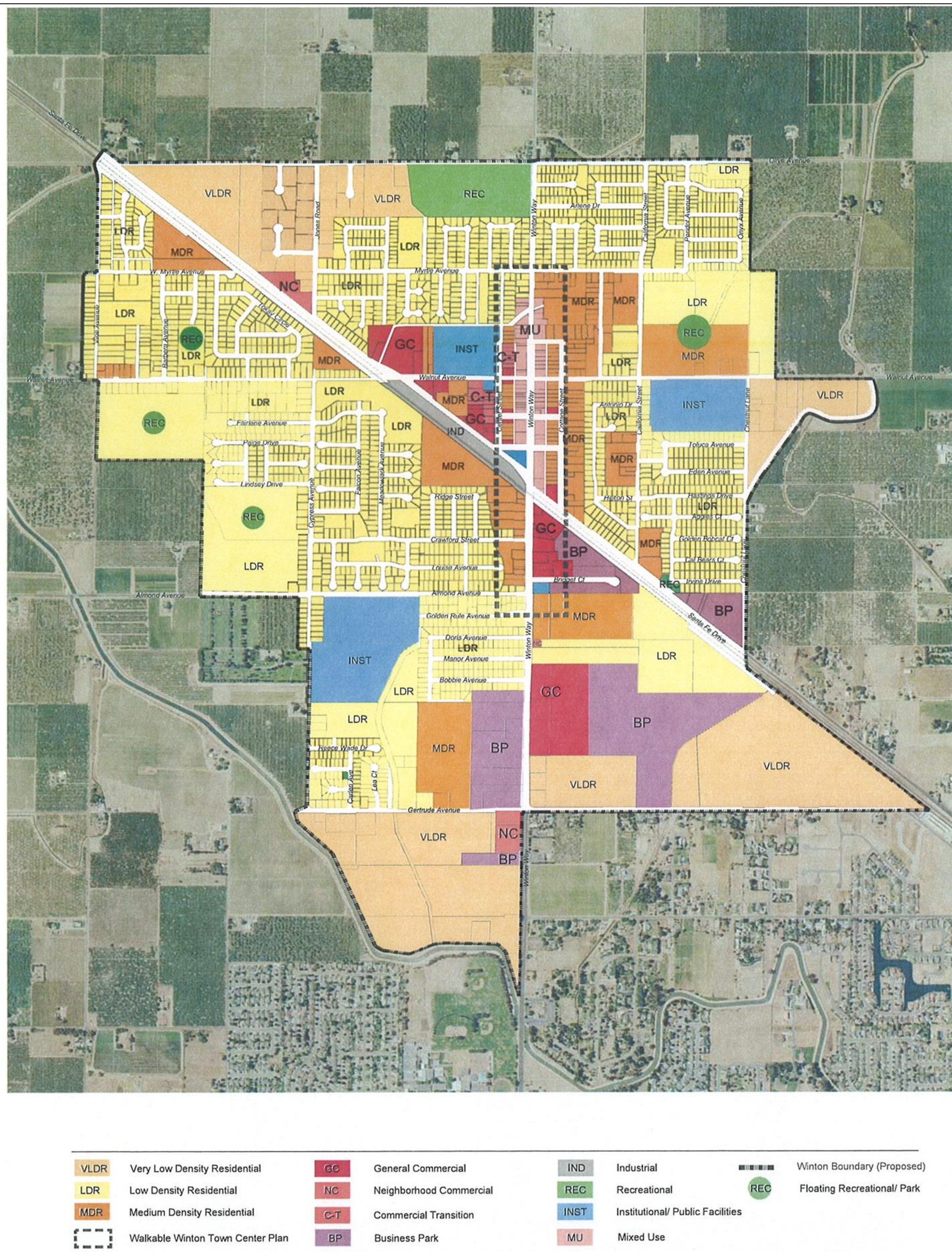


Figure 1-4
Proposed Community Plan Land Uses

Table 1-1
Plan Summary

Land Use	Acres	Typical Units per Acre	Existing Units	Potential Units	Unit Total[1]	Population[2] Existing	Future	Total
RESIDENTIAL								
Very Low Density Residential	231	1	110	133	243	370	447	816
Low Density Residential	549	5	2,138	875	3,013	7,184	2,940	10,124
Medium Density Residential	141	9	670	639	1,309	2,251	2,147	4,398
Commercial Mixed-Use	11	7	33	29	62	111	97	208
General Commercial	38	-	16[3]	-12	4[3]	54	-40	13
Neighborhood Commercial	8	-	6	-5	1	20	-17	3
Commercial Transition	4	-	16	-	16	54	-	54
BUSINESS PARK								
Business Park	78	-	6	-3	3	20	-10	10
INDUSTRIAL								
Industrial	9	-	-	-	-	-	-	-
PARK/RECREATIONAL								
Community Park	21	-	-	-	-	-	-	-
Neighborhood Park	23	-	-	-	-			
Pocket Park	1	-	-	-	-			
INSTITUTIONAL/PUBLIC FACILITIES						3	-	3
Elementary School	42	-	1	-	1	-	-	-
Middle School	18	-	-	-	-	-	-	-
Other	1	-	-	-	-	-	-	-
OTHER (ROADS, CANALS, ETC.								
	237	-	-	-	-	-	-	-
TOTAL	**4,412**	**-**	**2,996[3]**	**1,656**	**4,652[3]**	**10,067**	**5,564**	**15,630**

1. Total reflects removal of redundant units/s.f. (existing units/building s.f. that may be removed during development.
2. Population is based on the United States Census Year 2013 data indicating 3.36 persons per household within Merced County.
3. Slight discrepancies in totals due to rounding.

1.4 - Project Timeline/Water Supply Assessment Baseline

The Winton Water and Sanitary District is currently not issuing permits for new water or sewer system connections, thus precluding immediate Community Planned-development in the District for which the Plan will be adopted. The District has based this prohibition upon the planned completion of replacement water supply facilities needed to correct current water quality compliance violations (1, 2, 3-TCP)[1] in January of 2020, and in December of 2019 the adoption of the Merced Subbasin, State-required, Groundwater Sustainability Plan (GSP) which will include the District area.

The adopted GSP does not identify targets for any reductions in urban water usage by urban communities. Rather, the GSP states that such reductions will be determined in the future, and implemented in 2025 and beyond, as needed.[2] It may be assumed, however, that for communities such as Winton which have no surface water rights or surplus that the Plan will require, during its 20-year implementation period, some reduction in groundwater usage. It is, however, clear that the existing community groundwater well supply may not be relied upon to serve significant development pending 1, 2, 3-TCP water quality correction. Appendix B to this Assessment summarizes planned facilities modifications and additions to achieve 1, 2, 3-TCP compliance.

The Community Plan for which this Water Supply Assessment is prepared is "calendar timeless." Its growth projections are premised upon residential and commercial development additions to, or expansions and changes in, existing community development not upon times of such development.

The Water Supply Assessment is similarly unconstrained by the assumed or probable dates of elimination or modification of existing development restrictions. The Water Code requires evaluation over a twenty-year period of project water usage; it implies that such usage consider the impacts of full project development on the available water supply during normal rainfall years, "dry" years, and "multiple dry" years. The fact that initiation of Community Plan development may be briefly delayed does not change project water supply analysis criteria.

[1] TCP = Trichloropropane

[2] Merced SGMA, *Merced Groundwater Subbasin Groundwater Sustainability Plan,* November 2019, page ES-8.

SECTION 2 - WATER SUPPLY

Water Code Section 10910

(d)(1) The assessment required by this section shall include an identification of any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and a description of the quantities of water received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), under the existing water supply entitlements, water rights, or water service contracts.

(2) An identification of existing water supply entitlements, water rights, or water service contracts held by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), shall be demonstrated by providing information related to all of the following:

(A) Written contracts or other proof of entitlement to an identified water supply.

(B) Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system.

(C) Federal, State, and local permits for construction of necessary infrastructure associated with delivering the water supply.

(D) Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply.

The Winton Water and Sanitary District currently pumps and delivers groundwater to meet the demands of its service area. The Project proposes to utilize that water system. The District currently has no rights to or contracts for surface water, nor purchases any wholesale water from other agencies. The following sections describe the groundwater subbasin and water supply/water system reliability.

2.1 - Groundwater

Water Code Section 10910

(f) If a water supply for a proposed project includes groundwater, the following additional information shall be included in the water assessment:

(1) A review of any information contained in the urban water management plan relevant to the identified water supply for the proposed project.

(2) A description of any groundwater basin or basins from which the proposed project will be supplied. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the public water system,

or the city or county if either is required to comply with this part pursuant to subdivision (b), has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has been projected that the basin will become overdrafted if present management conditions continue, in the most current bulletin of the department that characterizes the condition of the groundwater basin, and a detailed description by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), of the efforts being undertaken in the basin or basins to eliminate the long-term overdraft condition…

2.2 - Groundwater Subbasin

The Department of Water Resources (DWR) has divided the State into 10 hydrologic regions which have been further divided into basins and subbasins. As described in the 2003 update to Bulletin 118 "California's Groundwater", the Merced Groundwater Basin (MGWB) is a subbasin within the San Joaquin Valley Groundwater Basin of the San Joaquin River Hydrologic Region (Figure 2-1).

The MGWB is located in the San Joaquin Valley, which is surrounded by the Coast Range on the west, the San Emigdio and Tehachapi Mountains on the south, the Sierra Nevada on the east, and the Sacramento-San Joaquin Delta (Delta) and Sacramento Valley on the north. The northern portion of the San Joaquin Valley drains toward the Delta via the San Joaquin River and its tributaries, including the Fresno, Merced, Tuolumne, and Stanislaus Rivers. The southern portion of the valley is internally drained by the Kings, Kaweah, Tule and Kern Rivers that flow into the Tulare drainage basin including the beds of the former Tulare, Buena Vista, and Kern Lakes (DWR, 2003).

The MGWB lies on the eastern side of the San Joaquin Valley, entirely within Merced County, and is generally described as the eastern half of Merced County. For the purposes of this Assessment, the northern border of MGWB includes lands south of the Merced River between the San Joaquin River on the west and the crystalline basement rock of the Sierra Nevada foothills on the east. The MGWB boundary on the south and west is the Chowchilla River and the Madera-Merced County line, thence northwest to the San Joaquin River.

Studies undertaken by associations of local water agencies, led by the Merced Irrigation District, have utilized an area only 54 square miles larger than the State, Bulletin 118, MGWB description as more accurately describing the subbasin from a hydrologic standpoint, terming it the Merced Region. The information provided, and referenced, in this Assessment will be based on that subbasin definition. The terms MGWB and Merced Region will be used interchangeably in the Assessment (see Figure 2-2).

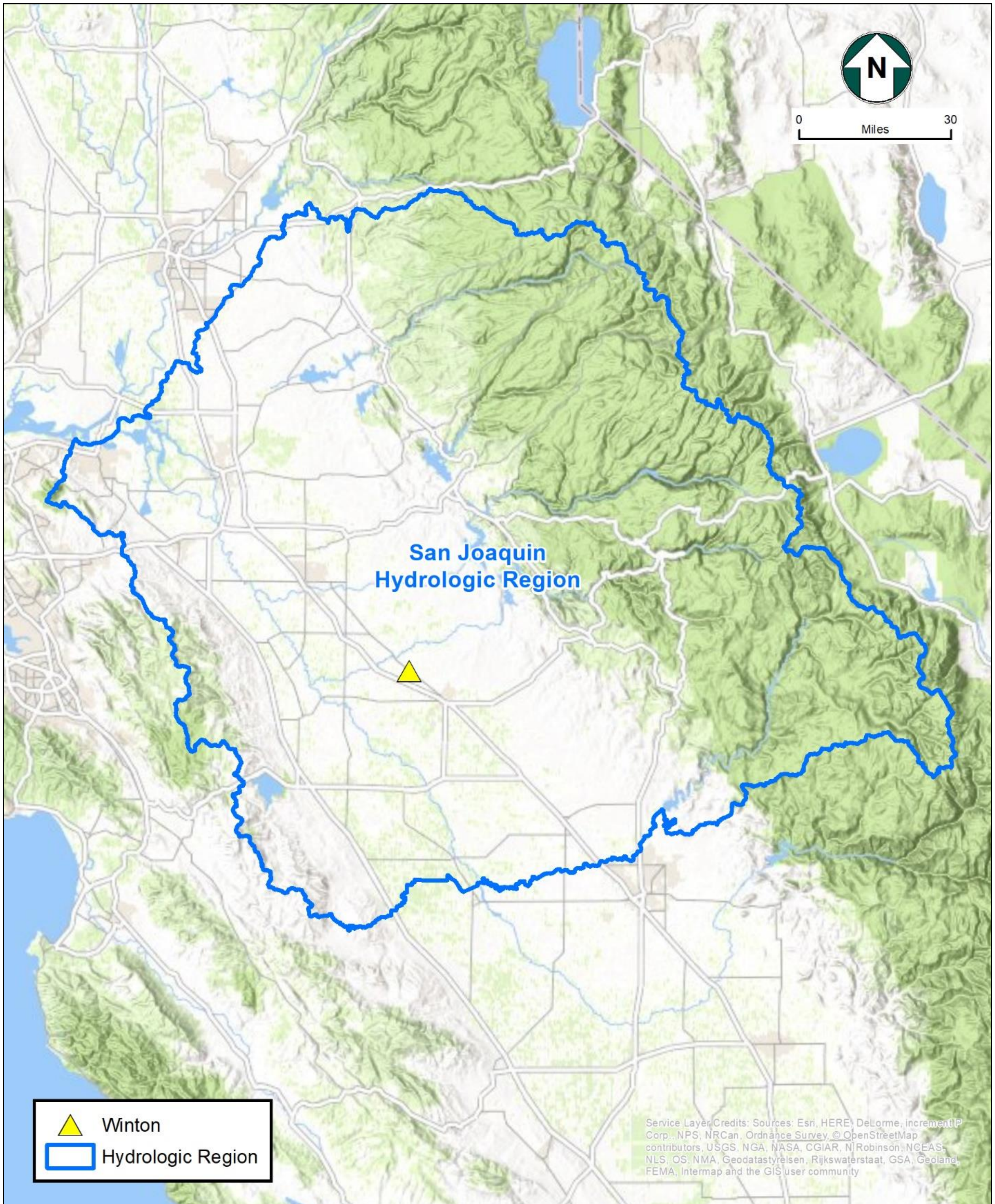


Figure 2-1
Hydrologic Region

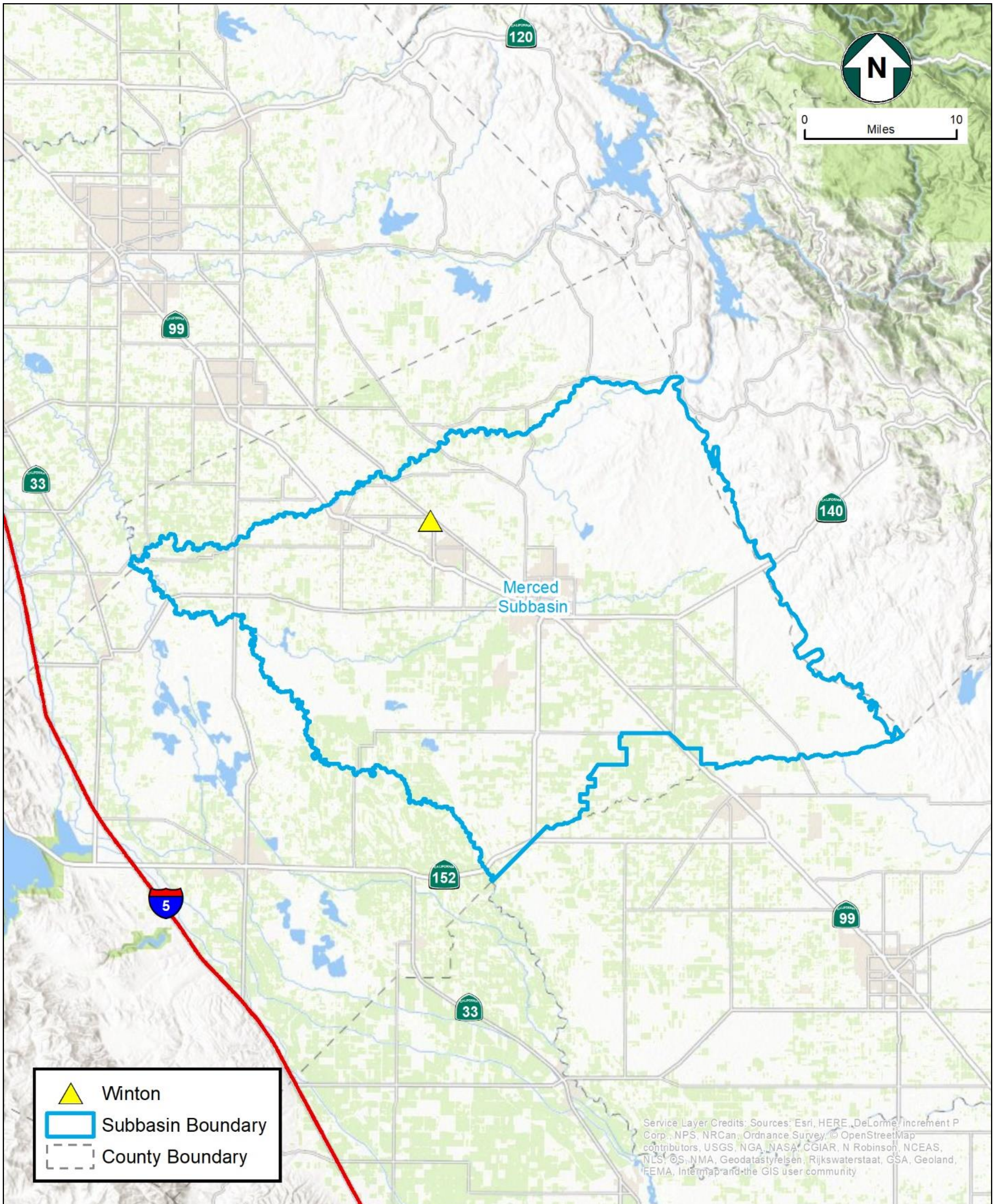


Figure 2-2
Merced Region

The area's geohydrologic characteristics are briefly described as:

There are three groundwater aquifers in the Merced Subbasin: an unconfined aquifer, a confined aquifer, and an aquifer in consolidated rocks. The unconfined water body occurs in the unconsolidated deposits above and east of the Corcoran Clay, which underlies the western half of the subbasin at depths ranging from about 50 to 200 feet, except in the western and southern parts of the area where clay lenses occur and semi-confined conditions exist. The confined aquifer occurs in the unconsolidated deposits below the Corcoran Clay and extends downward to the base of fresh water. The aquifer system in consolidated rocks occurs under both unconfined and confined conditions. The community of Winton is located, as are its wells, northeast of the easterly boundary of the Corcoran Clay. There is, therefore, no continuous confined aquifer under the community and its well system.

2.3 - Groundwater Usage

The water purveyors in the Merced Region are depicted on Figure 2-3. The Merced Integrated Regional Water Management Plan projected that in 2015 municipalities and urban districts would pump (all are groundwater-dependent) about 107,000-acre feet per year; that agricultural districts would pump in the order of 400,000-acre feet per year. These estimates assumed normal precipitation years and surface water usage for agricultural irrigation. They also preceded reduced community growth rates, and the reductions of per capita per day usage by urban areas which resulted from State drought-related urban water usage requirements.

Such forecast pumping rates do not reflect actual drought-related pumpage rates (municipality/urban water use reductions, significant agricultural water pumpage increases due to surface water source shortage). They may more accurately reflect long term groundwater usage trends as indicators of subbasin water use demands. They are reported here for that purpose only. Estimated pumpage rates reported for 2012 in Merced County's General Plan Background report were 54,000-acre feet of urban demand and 492,000-acre feet of agricultural pumpage. These rates reflected drought-related reduced urban water use and greatly increased agricultural pumpage because of the drought-affected lack of availability of surface water.

Agriculture is the dominant land use in Merced County. It is estimated to account for more than 90 percent of all land use. According to the Merced Groundwater Basin Management Plan, the majority of water used within the Merced Subbasin has historically been and continues to be used for agricultural purposes (Figure 2-4).

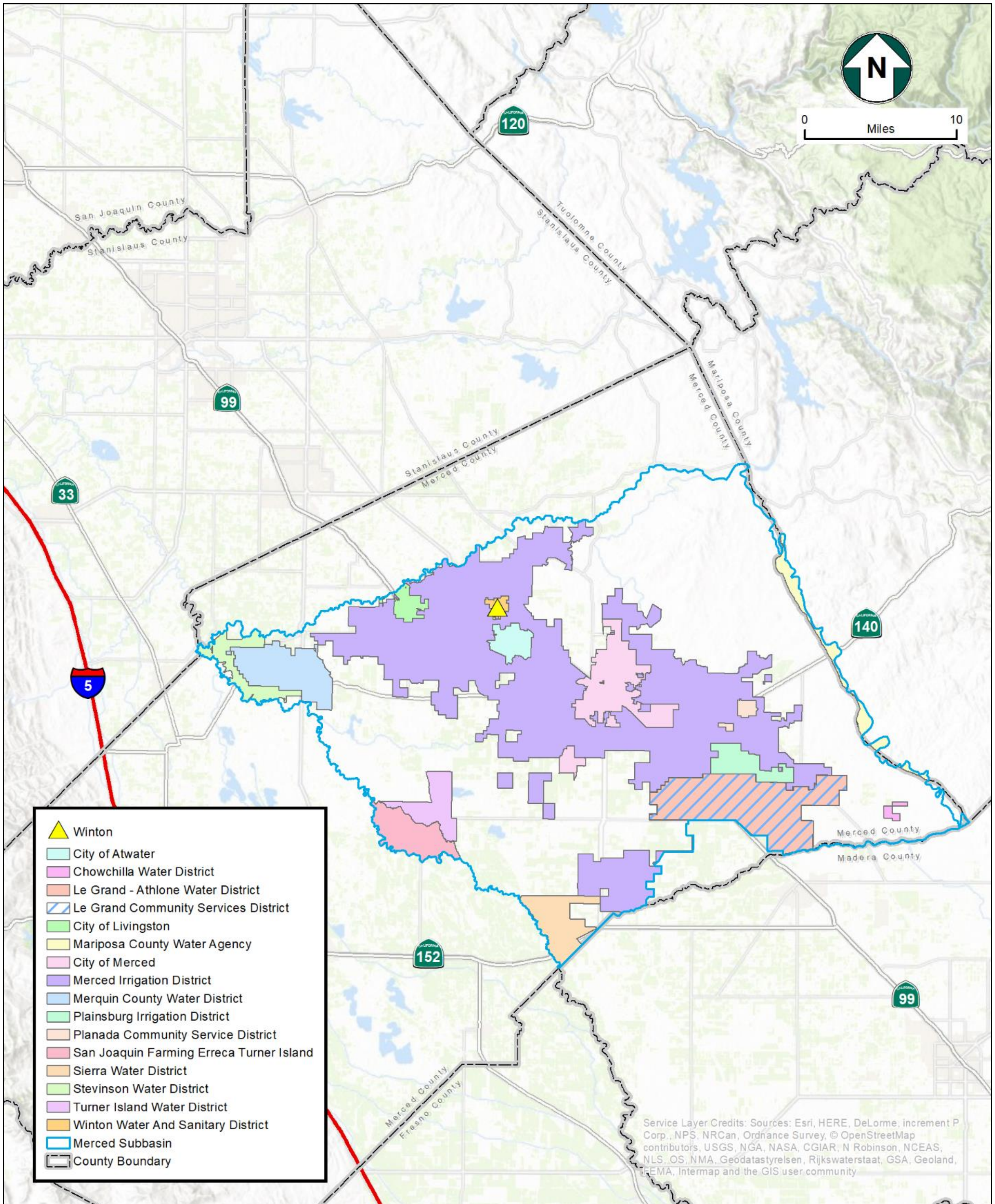


Figure 2-3
Water Purveyors, Merced Region

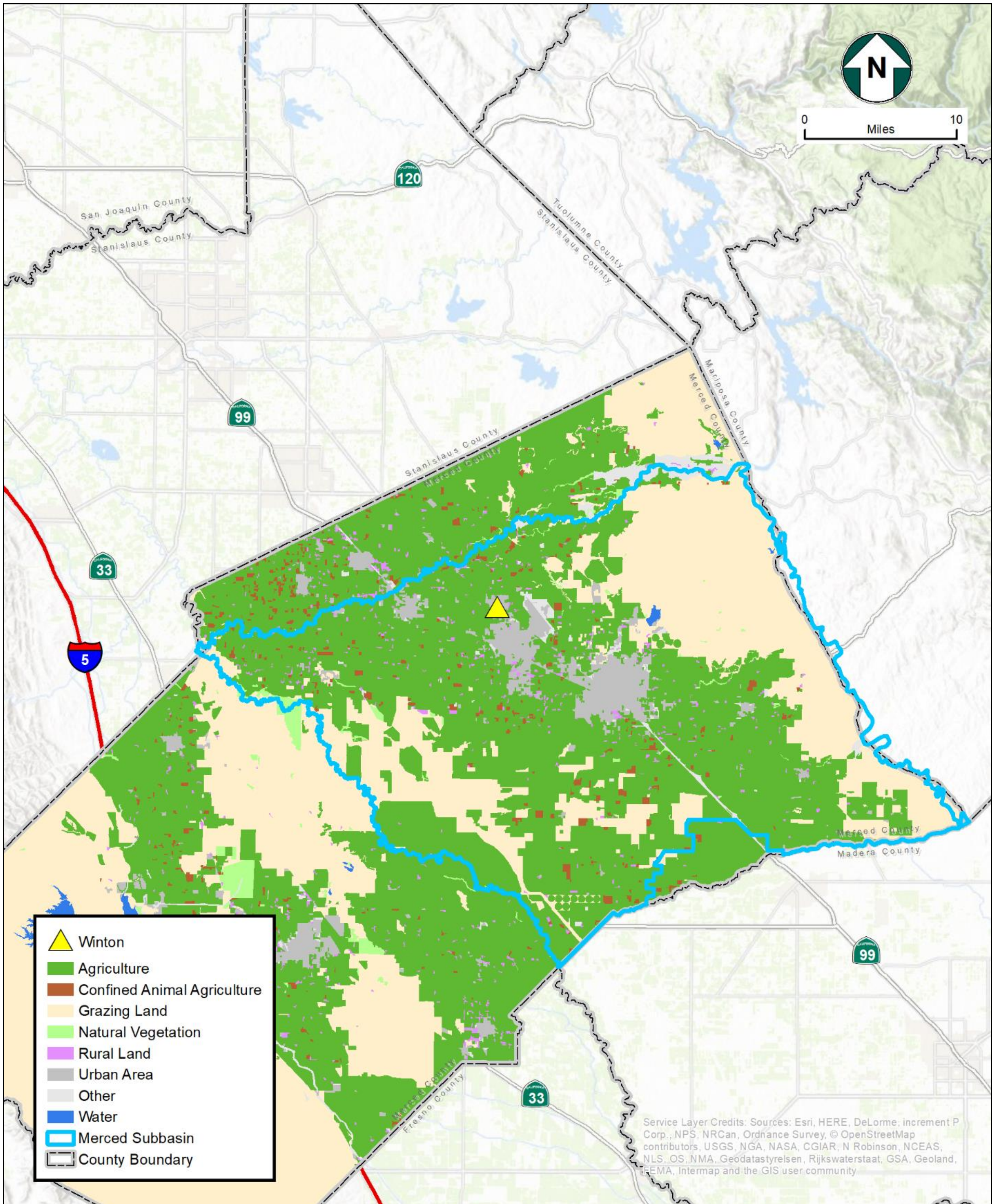


Figure 2-4
Merced Region Land Uses

Agricultural water supplies serving the Region can be grouped into three broad classes.

1. Merced Irrigation District/Stevinson Water District: The largest irrigated area is served by MID with a generally reliable surface water supply available from the Merced River that is adequate to meet customer demands in most years. The MID service area covers about 164,000 acres, of which approximately 140,000 acres are irrigated agricultural land. Some groundwater is pumped within the MID service area by both private landowners and by MID. This category also includes Stevinson Water District, which has a perhaps more reliable surface water source than MID.

2. Other organized agricultural water suppliers: Approximately 72,600 irrigated acres are served by other agricultural water suppliers that rarely, if ever, have adequate surface water supplies to meet agricultural demands. These areas rely on a blend of surface water and groundwater with groundwater being the primary source. The ratio of surface to groundwater supply availability varies widely between these agencies.

3. No organized agricultural water suppliers: Irrigated areas outside of the service areas of MID and other agricultural water suppliers rely solely on groundwater supplies for irrigation, with the exception of limited surface water purchases made in some years, subject to availability.

2.4 - Basin Overdraft

Portions of the San Joaquin River Hydrologic Region have been in a state of overdraft for many years. The California Water Plan Update – Bulletin 160-98 estimated that annual average groundwater overdraft in the Region to be 239,000-acre feet at a 1995 level of development. According to the 2008 Merced Area GWMP, the Merced Subbasin groundwater levels declined on average approximately 14 feet since 1980, with most of the decline occurring between 1980 and 1996, classifying the Subbasin as in a state of mild long-term groundwater level decline. The 2013 IRWMP characterized the Merced Subbasin as being generally in overdraft. In August 2015, the Department of Water Resources defined the Subbasin as being in a state of critical overdraft.

2.5 - Regional Groundwater Management

The Groundwater Management Act, California Water Code (CWC) Section 10753, et. seq., originally enacted as Assembly Bill (AB) 3030, was passed by the State legislature during the 1992 session and became law on January 1, 1993.

The Merced Irrigation District (MID) and the City of Merced prepared a final draft Groundwater Management Plan (GWMP) in 1997 to comply with the legislative requirements of AB 3030. In December 1997, water purveyors within the MGWB signed a Memorandum of Understanding (MOU) creating an association identified as the Merced Area Groundwater Pool Interests (MAGPI) (Appendix B). MAGPI adopted the GWMP in December 1997. The 1997 GWMP served as the initial framework for management of groundwater resources within the MGWB.

In 2002, State Senate Bills (SB) 1938 (Groundwater Management Planning Act of 2002) and SB 1672 (Integrated Regional Water Management Planning Act of 2002) were signed into law. These bills required various changes and additions to existing basin-wide groundwater management plans. In 2008, the 1997 GWMP was adopted and incorporated new components and updates of existing components to address the legislative requirements of SB 1938 and SB 1672. This update incorporated data collected since 1997 and reflected analyses performed subsequent to preparation of the 1997 GWMP.

In 2013 the water purveyors in the Region adopted, and are implementing, the Merced Integrated Regional Water Management Plan (MIRWMP) updating and expanding upon the GWMP.

In 2019, in implementation of the State's Sustainable Groundwater Management Act, the County of Merced, the Merced Irrigation District, and other agencies are cooperating in formation of State-required Sustainable Groundwater Management Agencies.

The Merced Groundwater Subbasin, as one of the 21 basins in the State of California identified by the California Department of Water Resources as critically overdrafted, is one of 48 basins considered high priority. Consistent with the requirements of the Sustainable Groundwater Management Act (SGMA), water management and land management agencies in Merced Subbasin have formed three Groundwater Sustainability Agencies (GSAs): the Merced Subbasin Groundwater Sustainability Agency, the Merced Irrigation Urban Groundwater Sustainability Agency, and the Turner Island Water District Groundwater Sustainability Agency. The three GSAs have collaborated in developing a Groundwater Sustainability Plan for the entire Merced Groundwater Subbasin by January 2020 (see Figure 2-5 for intra-Agency boundaries).

It is likely, that in implementing the Plan, each local agency will individually adopt usage restrictions as necessary and similar to those adopted during the recent drought. There is no Plan provision for, and no likelihood of, Plan-wide implementation measures.

Winton Water and Sanitary District is a part of the Merced Irrigation Urban Groundwater Sustainability Agency. It will be a participant in implementing the Plan after its adoption.

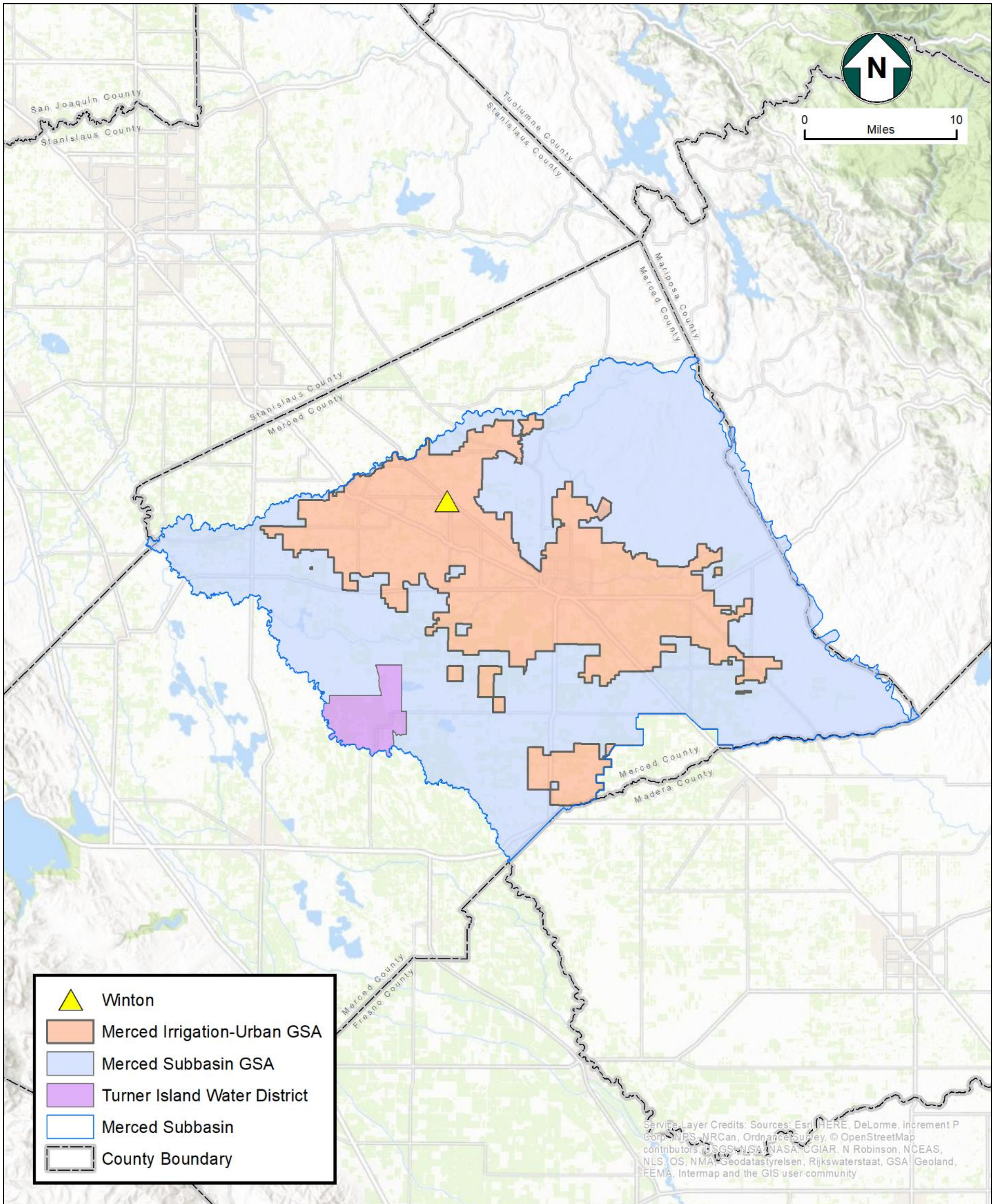


Figure 2-5
Merced Basin Groundwater Sustainability Agencies

2.6 - Reliability of Groundwater Basin Supply

As a prelude to the analysis of water supply sufficiency for the implementation of the proposed Project, which must consider the sufficiency and reliability of the Basin groundwater resource. The Basin is evaluated as:

- Providing adequate groundwater storage resources.

  DWR Bulletin 118 cited an estimate of specific yield for the Merced Subbasin, which was developed by the Department of Water Resources (DWR) in 1995. The estimate was based on specific yields determined on a regional basis, which were used to obtain a weighted specific yield conforming to the subbasin boundary. The estimated specific yield for the subbasin was 9.0 percent. The estimated storage capacity in the subbasin was 21,100,000-acre feet to a depth of 300 feet and 47,600,000-acre feet to the base of fresh groundwater. These same calculations gave an estimate of 15,700,000-acre feet of groundwater to a depth of 300 feet as of 1995.

  The adopted Groundwater Maintenance Plan adopted a current detailed budget for the Subbasin. It estimated overall applied water demands, agricultural groundwater pumpage, urban pumping demand and other groundwater-related data.

  Natural recharge into the Subbasin has been estimated to be 47,000-acre feet per year. Values for subsurface inflow were determined; there was approximately 243,000-acre feet of applied water recharge into the Subbasin in 2012. Annual urban and agricultural extractions were at that juncture 54,000-acre feet and 492,000-acre feet, respectively. Other extractions equaled approximately 9,000-acre feet.

  Rather than attempting, for the purposes of this Assessment, to prepare a detailed water budget, a worst-case assumption of decreased storage in the Subbasin premised upon the reported average water level decline from 2006 to 2015, the loss in stored groundwater would have been in the order of 700,000-acre feet in the Subbasin above 300 depth [(10'/225' x 15,700,000], 4.5 percent. This estimated loss occurred during severe drought years with reduced surface water availability and increased groundwater pumping. The Subbasin, despite its renewed 2015 DWR designation as critically overdrafted currently recharges to some degree in normal rainfall/runoff years. With such recharge, and long-term average precipitation and surface water availability, there is no reasonable likelihood of the Subbasin not being able to provide adequate groundwater storage resources; however, annual overdraft reported in the GSP was approximately 192,000 acre feet per year. It is evident that, despite this analysis, the Subbasin water resource, absent incalculable climatic change-related surface water supplies, will remain a reliable source of groundwater supply.

- Possessing a consistent usage history of both surface water and groundwater resources which, nevertheless, will achieve document effective usage of the groundwater resources.

The Region's consistent history of planning and implementing groundwater and surface water usage within the framework of the 1997 Groundwater Management Plan and the 2013 Merced Integrated Regional Water Management Plan demonstrate that regional usage concern for available groundwater resources.

- Protected against continuing groundwater resource deterioration by the Region's comprehensive water resource management programs and the adopted Groundwater Sustainability (SGMA) Plan.

SECTION 3 - WATER SYSTEM SUFFICIENCY

Water Code Section 10910

(f) *If a water supply for a proposed project includes groundwater the following additional information shall be included in the water assessment…*

(3) *A detailed description and analysis of the amount and location of groundwater pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), for the past five years from any groundwater basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonable available, including, but not limited to, historic use records.*

(4) *A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), from any basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records...*

3.1 - Water Service Area

The community of Winton's water service area includes 1,412 developable acres located within the Proposed Community Plan boundaries (see Figure 1-4 and Table 1-1). The estimated current population of the community is 10,067, the buildout population is estimated to be 14,654. Water service for the community is provided by the Winton Water and Sanitary District and will be so provided for the Community Plan buildout.

3.2 - Current Service Area Water Demand

The District's average (2006 to 2018) annual water pumpage has been approximately 564 million gallons, resulting from per capita daily usage (residential and non-residential) of about 155 gallons.

3.3 - Water System Operations and Facilities

The District's water system is, for a community of this size and age, well designed, staffed and operated. There are three active wells, and one "standby", with well design capacities of 1,200 to 2,400 gallons per minute. Distribution system sizes vary from 18" PVC to 12', 10", 8", 6", and 4". Main lines are 60 percent C-900 PVC, 20 percent AC pipe, 19 percent thin wall PVC, 1 percent cast iron. Service lines are 60 percent polyvinyl, 30 percent Schedule 40, 8 percent galvanized, 2 percent old polybutylene.

All services are metered. These will be normal continuing replacement of oldest or deteriorating/size-deficient lines. All water production is chlorinated.

3.4 - Project Water Demands

The Community Plan buildout (2040) water demand is estimated, at average daily usage per capita of 155 gallons, and a projected population of 15,630, to be approximately 2.4 million gallons per day, which equates to approximately 7.4-acre feet per day, or approximately 2,714-acre feet per year. The actual amount could be less if and when reductions in water demand are required during GSP implementation to reach minimum thresholds as established through data gathering and GSP updates.

The usage of population increase as a predictive tool is, in this instance, conservative. The projected population increase is 55 percent; the projected increase in non-residential square footage of development is 190 percent[3]. Commercial water usage is customarily less than or equal to, on an acreage basis, than residential. In predicting water usage increase over a 20-year horizon, as legally required for the water supply assessment, such usage will parallel population increase absent extensive development outside the Plan area creating commercial land use demand.

3.5 - Water Quality Characteristics

The District's water supply is at present in compliance with State water quality standards except for 1, 2, 3-TCP; two of the three active wells exceed the maximum level for this contaminant (see Appendix B).

Treatment alternatives and corresponding costs for correction of 1, 2, 3-TCP non-compliance were evaluated by a consulting firm[4] in 2015. As a result of negotiations with firms deemed contributors (through land application of nematicides containing TCP as an impurity) the District has the essential funding to implement effective corrective actions. The District's engineering firm , QK, has prepared a corrective action plan (see Appendix C) to implement the required corrective actions (a replacement well and wellhead treatment). Such action plan is in progress and is scheduled for completion in April of 2021.

3.6 - Sustainable Groundwater Plan Constraints

Sections 1.4 and 2.5 of this Assessment refer to possible impacts on groundwater usage from potential timing Community Plan implementation as affected by the December 2019 adoption of the GSP for the Merced region.

The Plan delays consideration of urban-area water use regulation until the Plan implementation period. It may, however, be assumed that it will provide for the State regional goal (Tulare Lake Basin) of 285 gallons per day per capita in 2020 or some lesser amount. The water demand projection in Section 3.4 therefore remains a "worst-case",

[3] Table 1-1

[4] Corona Environmental Consulting, LLC, October 19, 2015

conservative, assumption of water demands during Plan implementation—it assumes no reduction in current per capita usage.

The Winton Water and Sanitary District is actively involved in SGP preparation through its representatives (Brenda Wey, District Office Supervisor and Carlos Valencia, District Maintenance Supervisor on the Board of a major component, the Merced-Irrigation-Urban Groundwater Sustainability Agency, of the Merced Region GSP preparation process.) They will, in addition to representing the Winton community's interests, be of inestimable value in applying GSP management actions to Community Plan implementation.

3.7 - Reliability of Community Water System

In evaluation of the District water system's reliability, Sections 3.1 through 3.5 demonstrate its adequacy subject to engineering analysis (a water plan is currently authorized as to whether an additional well or wells, or other groundwater supply facilities, are necessary to meet peak hour demands at full Project implementation). It will also evaluate whether any modifications in the distribution system are required to satisfy Project buildout water delivery volumes and pressures. The District will finance any required wells and distribution system modifications with development impact fees, State or federal grants, or rate adjustments.

(The SB 610 Normal Water Year, Single Dry Water Year, Multiple Dry Years supply reliability analysis is provided in Section 4.2 of this Assessment.)

SECTION 4 - WATER SUPPLY SUFFICIENCY

4.1 - Transfer, Exchange, New Water Supply

Water Code Section 10910

(f) If a water supply for a proposed project includes groundwater the following additional information shall be included in the assessment…

(3) An analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project. A water assessment shall not be required to include the information required by this paragraph if the public water system determines, as part of the review required by paragraph (1), that the sufficiency of groundwater necessary to meet the initial and projected water demand associated with the Project was addressed in the description and analysis required by paragraph (40 of subdivision (b) of Section 10631…

Winton's water system is irrevocably based upon the usage of groundwater from the Subbasin.

The Subbasin's committed agricultural and urban development usage of available surface water and groundwater resources precludes transfer to the community of such resources from other entities. Winton possesses no surface water rights, and none are available to it even if surface water storage and treatment were economically feasible. The Merced Subbasin is not adjudicated so groundwater rights do not exist for transfer.

In view of the infeasibility of these alternatives, water supply sufficiency for the Projects must be evaluated on the basis of the data and conclusions provided in Section 2, Water Supply Resources, and Section 3, Water System Sufficiency.

4.2 - Sufficiency Evaluation and Conclusion

Water Code Section 10910, Section 4.5

…(c)(3) If the projected water demand associated with the proposed project was not accounted for in the most recently adopted urban water management plan, or the public water system has no urban water management plan, the water supply assessment for the project shall include a discussion with regard to whether the public water system's total projected water supplies available during normal, single, dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses.

The Subbasin water supply resource analysis in Section 2 of this Assessment demonstrates that the Basin resource poses no concerns regarding its adequacy.

The reliability of the community water system to distribute this resource as projected, over a 20-year period of Project implementation is determined in Section 3 of this Assessment to be sufficient.

In compliance with the direction of SB 610, with an adequate groundwater resource as the sole source of District water supply, and the demonstrated adequacy of the multiple-well existing and proposed District water system the evaluated reliability of the Project water supply over its projected water demand in the next 20 years is summarized in Table 4-1.

Table 4-1
Supply Reliability

Year(s)	Water Supply Source	Normal Water Year	Single Dry Water Year	Multiple Dry Water Year			
				1	2	3	4
2020	1930	1930	1930	1930	1930	1930	1930
2025	2130	2130	2130	2130	2130	2130	2130
2030	2320	2320	2320	2320	2320	2320	2320
2035	2520	2520	2520	2520	2520	2520	2520
2040	2720	2720	2720	2720	2720	2720	2720

Note: Acre feet per year; assumes 20-year build-out of the Project; and based on uniform annual growth increments

In confirmation of the adequacy of the Section 3 determinations, the District's water distribution system has historically proven reliable. Continued effective operation and maintenance of the system has been demonstrated. District engineering design standards are in place that meet or exceed American Water Works Standards, ensuring that system reliability does not diminish as it is expanded. Funds to maintain and expand the system to meet the continued growth in water demand are collected through State and federal grants, water rates and development fees. The District's adequacy of both water supply and water distribution was demonstrated during a recent five-year drought period and during the recent record-single dry year in that period.

4.3 - Lead Agency Action

Water Code Section 10911, Section 5

(g)(1) Subject to paragraph (2), the governing body of each public water system shall submit the assessment to the city of county not later than 90 days from the date on which the request was received. The governing body of each public water system, or the city or

county if either is required to comply with this act pursuant to subdivision (b), shall approve the assessment prepared pursuant to this section at a regular or special meeting.

The County of Merced, in concert with the approval of appropriate environmental impact analysis of the Project, must adopt this Water Supply Assessment.

REFERENCES

- Administrative Draft, Winton Community Plan, Merced County Planning and Community Development Department

- Merced Integrated Regional Water Management Plan; City of Merced, County of Merced, Merced Irrigation District, 2013

- Merced Groundwater Basin, Groundwater Management Plan Update, Merced Groundwater Pool Interests; AMEC Geomatrix, Inc., July 2008

- California's Groundwater, Bulletin 118, Update 2003; Department of Water Resources

- Winton Water and Sanitary District; Treatment Technologies and Costs to Treat 1, 2, 3-Trichloropropane; Final Report, October 19, 2015; Corona Environmental Consultants

- Merced Groundwater Subbasin Groundwater Sustainability Plan, November 2019/January 2020

Persons/Organizations Consulted

- Lee Fremming, Principal Engineer (District Engineer, Winton Water and Sanitary District), QK, Inc.
- Adrienne Graham, AICP; Community Plan
- Brenda Wey, Office Supervisor; Winton Water and Sanitary District
- Carlos Valencia, Maintenance Supervisor; Winton Water and Sanitary District
- Hicham Etal, P.E.; Merced Irrigation District, Chair, Merced Irrigation – Urban GSA
- Matt Hesperheide, Senior Engineer; Merced County Department of Public Works, Road Division
- Steven Pound, Project Manager; Veolia Water (City of Atwater)

APPENDIX A

CHAPTER 643, STATUTES OF 2001 (SENATE BILL 610)

Chapter 643, Statutes of 2001 (Senate Bill 610)

An act to amend Section 21151.9 of the Public Resources Code, and to amend Sections 10631, 10656, 10910, 10911, 10912, and 10915 of, to repeal Section 10913 of, and to add and repeal Section 10657 of, the Water Code, relating to water. Approved by Governor October 9, 2001. Filed with Secretary of State October 9, 2001.

The people of the State of California do enact as follows:

SECTION 1. (a) The Legislature finds and declares all of the following:
(1) The length and severity of droughts in California cannot be predicted with any accuracy.

(2) There are various factors that affect the ability to ensure that adequate water supplies are available to meet all of California's water demands, now and in the future.

(3) Because of these factors, it is not possible to guarantee a permanent water supply for all water users in California in the amounts requested.

(4) Therefore, it is critical that California's water agencies carefully assess the reliability of their water supply and delivery systems.

(5) Furthermore, California's overall water delivery system has become less reliable over the last 20 years because demand for water has continued to grow while new supplies have not been developed in amounts sufficient to meet the increased demand.

(6) There are a variety of measures for developing new water supplies including water reclamation, water conservation, conjunctive use, water transfers, seawater desalination, and surface water and groundwater storage.

(7) With increasing frequency, California's water agencies are required to impose water rationing on their residential and business customers during this state's frequent and severe periods of drought.

(8) The identification and development of water supplies needed during multiple-year droughts is vital to California's business climate, as well as to the health of the agricultural industry, environment, rural communities, and residents who continue to face the possibility of severe water cutbacks during water shortage periods.

(9) A recent study indicates that the water supply and land use planning linkage, established by Part 2.10 (commencing with Section 10910) of Division 6 of the Water Code, has not been implemented in a manner that ensures the appropriate level of communication between water agencies and planning agencies, and this act is intended to remedy that deficiency in communication.

(b) It is the intent of the Legislature to strengthen the process pursuant to which local agencies determine the adequacy of existing and planned future water supplies to meet existing and planned future demands on those water supplies.

SEC. 2. Section 21151.9 of the Public Resources Code is amended to read:
21151.9. Whenever a city or county determines that a project, as defined in Section 10912 of the Water Code, is subject to this division, it shall comply with Part 2.10 (commencing with Section 10910) of Division 6 of the Water Code.

SEC. 3. Section 10631 of the Water Code is amended to read:
10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:

(a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.

(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments as described in subdivision (a). If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:

(1) A copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.

(2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.

(3) A detailed description and analysis of the amount and location of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the location, amount, and sufficiency of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(c) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:

(1) An average water year.
(2) A single dry water year.
(3) Multiple dry water years.

For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to replace that source with alternative sources or water demand management measures, to the extent practicable.

(d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

(e) (1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses:

(A) Single-family residential.
(B) Multifamily.
(C) Commercial
(D) Industrial.
(E) Institutional and governmental.
(F) Landscape.
(G) Sales to other agencies.
(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.
(I) Agricultural.

(2) The water use projections shall be in the same five-year increments as described in subdivision (a). (f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:

(1) A description of each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following:

(A) Water survey programs for single-family residential and multifamily residential customers.
(B) Residential plumbing retrofit.
(C) System water audits, leak detection, and repair.
(D) Metering with commodity rates for all new connections and retrofit of existing connections.
(E) Large landscape conservation programs and incentives.
(F) High-efficiency washing machine rebate programs.
(G) Public information programs.
(H) School education programs.
(I) Conservation programs for commercial, industrial, and institutional accounts.
(J) Wholesale agency programs.
(K) Conservation pricing.
(L) Water conservation coordinator.
(M) Water waste prohibition.
(N) Residential ultra-low-flush toilet replacement programs.

(2) A schedule of implementation for all water demand management measures proposed or described in the plan.

(3) A description of the methods, if any, that the supplier will use to evaluate the effectiveness of water demand management measures implemented or described under the plan.

(4) An estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of such savings on the supplier's ability to further reduce demand.

(g) An evaluation of each water demand management measure listed in paragraph (1) of subdivision (f) that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration shall be given to water demand management measures, or combination of measures, that offer lower incremental costs than expanded or additional water supplies. This evaluation shall do all of the following:

(1) Take into account economic and non-economic factors, including environmental, social, health, customer impact, and technological factors.

(2) Include a cost-benefit analysis, identifying total benefits and total costs.

(3) Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost.

(4) Include a description of the water supplier's legal authority to implement the measure and efforts to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation.

(h) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs, other than the demand management programs identified pursuant to paragraph (1) of subdivision (f), that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single dry, and multiple dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.

(i) Urban water suppliers that are members of the California Urban Water Conservation Council and submit annual reports to that council in accordance with the ''Memorandum of Understanding Regarding Urban Water Conservation in California,'' dated September 1991, may submit the annual reports identifying water demand management measures currently being implemented, or scheduled for implementation, to satisfy the requirements of subdivisions (f) and (g).

SEC. 3.5. Section 10631 of the Water Code is amended to read:
10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:

(a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.

(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments as described in subdivision (a). If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:

(1) A copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.

(2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.

(3) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(c) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:

(1) An average water year.

(2) A single dry water year.

(3) Multiple dry water years. For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.

(d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

(e) (1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses:

(A) Single-family residential.
(B) Multifamily.
(C) Commercial.
(D) Industrial
(E) Institutional and governmental.
(F) Landscape.
(G) Sales to other agencies.
(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.
(I) Agricultural.

(2) The water use projections shall be in the same five-year increments as described in subdivision (a).

(f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:

(1) A description of each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following:

(A) Water survey programs for single-family residential and multifamily residential customers.
(B) Residential plumbing retrofit.
(C) System water audits, leak detection, and repair.
(D) Metering with commodity rates for all new connections and retrofit of existing connections.
(E) Large landscape conservation programs and incentives.
(F) High-efficiency washing machine rebate programs.
(G) Public information programs.
(H) School education programs.
(I) Conservation programs for commercial, industrial, and institutional accounts.
(J) Wholesale agency programs.
(K) Conservation pricing.
(L) Water conservation coordinator.
(M) Water waste prohibition.
(N) Residential ultra-low-flush toilet replacement programs.

(2) A schedule of implementation for all water demand management measures proposed or described in the plan.

(3) A description of the methods, if any, that the supplier will use to evaluate the effectiveness of water demand management measures implemented or described under the plan.

(4) An estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the supplier's ability to further reduce demand.

(g) An evaluation of each water demand management measure listed in paragraph (1) of subdivision (f) that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration shall be given to water demand management measures, or combination of measures, that offer lower incremental costs than expanded or additional water supplies. This evaluation shall do all of the following:

(1) Take into account economic and noneconomic factors, including environmental, social, health, customer impact, and technological factors.

(2) Include a cost-benefit analysis, identifying total benefits and total costs.

(3) Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost.

(4) Include a description of the water supplier's legal authority to implement the measure and efforts to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation.

(h) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs, other than the demand management programs identified pursuant to paragraph (1) of subdivision (f), that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single dry, and multiple dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.

(i) Urban water suppliers that are members of the California Urban Water Conservation Council and submit annual reports to that council in accordance with the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated September 1991, may submit the annual reports identifying water demand management measures currently being implemented, or scheduled for implementation, to satisfy the requirements of subdivisions (f) and (g).
SEC. 4. Section 10656 of the Water Code is amended to read:
10656. An urban water supplier that does not prepare, adopt, and submit its urban water management plan to the department in accordance with this part, is ineligible to receive funding pursuant to Division 24 (commencing with Section 78500) or Division 26 (commencing with Section 79000), or receive drought assistance from the state until the urban water management plan is submitted pursuant to this article.

SEC. 4.3. Section 10657 is added to the Water Code, to read:
10657. (a) The department shall take into consideration whether the urban water supplier has submitted an updated urban water management plan that is consistent with Section 10631, as amended by the act that adds this section, in determining whether the urban water supplier is eligible for funds made available pursuant to any program administered by the department.

(b) This section shall remain in effect only until January 1, 2006, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2006, deletes or extends that date.

SEC. 4.5. Section 10910 of the Water Code is amended to read:
10910. (a) Any city or county that determines that a project, as defined in Section 10912, is subject to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) under Section 21080 of the Public Resources Code shall comply with this part.

(b) The city or county, at the time that it determines whether an environmental impact report, a negative declaration, or a mitigated negative declaration is required for any project subject to the California Environmental Quality Act pursuant to Section 21080.1 of the Public Resources Code, shall identify any water system that is, or may become as a result of supplying water to the project identified pursuant to this subdivision, a public water system, as defined in Section 10912, that may supply water for the project. If the city or county is not able to identify any public water system that may supply water for the project, the city or county shall prepare the water assessment required by this part after consulting with any entity serving domestic water supplies whose service area includes the project site, the local agency formation commission, and any public water system adjacent to the project site.

(c) (1) The city or county, at the time it makes the determination required under Section 21080.1 of the Public Resources Code, shall request each public water system identified pursuant to subdivision (b) to determine whether the projected water demand associated with a proposed project was included as part of the most recently adopted urban water management plan adopted pursuant to Part 2.6 (commencing with Section 10610).

(2) If the projected water demand associated with the proposed project was accounted for in the most recently adopted urban water management plan, the public water system may incorporate the requested information from the urban water management plan in preparing the elements of the assessment required to comply with subdivisions (d), (e), (f), and (g).

(3) If the projected water demand associated with the proposed project was not accounted for in the most recently adopted urban water management plan, or the public water system has no urban water management plan, the water supply assessment for the project shall include a discussion with regard to whether the public water system's total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses.

(4) If the city or county is required to comply with this part pursuant to subdivision (b), the water supply assessment for the project shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry, and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses.

(d) (1) The assessment required by this section shall include an identification of any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and a description of the quantities of water received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), under the existing water supply entitlements, water rights, or water service contracts.

(2) An identification of existing water supply entitlements, water rights, or water service contracts held by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), shall be demonstrated by providing information related to all of the following:

(A) Written contracts or other proof of entitlement to an identified water supply.

(B) Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system.

(C) Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply.

(D) Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply.

(e) If no water has been received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), under the existing water supply entitlements, water rights, or water service contracts, the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), shall also include in its water supply assessment pursuant to subdivision (c), an identification of the other public water systems or water service contract-holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water as the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has identified as a source of water supply within its water supply assessments.

(f) If a water supply for a proposed project includes groundwater, the following additional information shall be included in the water supply assessment:

(1) A review of any information contained in the urban water management plan relevant to the identified water supply for the proposed project.

(2) A description of any groundwater basin or basins from which the proposed project will be supplied. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current bulletin of the department that characterizes the condition of the groundwater basin, and a detailed description by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), of the efforts being undertaken in the basin or basins to eliminate the long-term overdraft condition.

(3) A detailed description and analysis of the amount and location of groundwater pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), for the past five years from any groundwater basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), from any basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(5) An analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project. A water supply assessment shall not be required to include the information required by this paragraph if the public water system determines, as part of the review required by paragraph (1), that the sufficiency of groundwater necessary to meet the initial and projected water demand associated with the project was addressed in the description and analysis required by paragraph (4) of subdivision (b) of Section 10631.

(g) (1) Subject to paragraph (2), the governing body of each public water system shall submit the assessment to the city or county not later than 90 days from the date on which the request was received. The governing body of each public water system, or the city or county if either is required to comply with this act pursuant to subdivision (b), shall approve the assessment prepared pursuant to this section at a regular or special meeting.

(2) Prior to the expiration of the 90-day period, if the public water system intends to request an extension of time to prepare and adopt the assessment, the public water system shall meet with the city or county to request an extension of time, which shall not exceed 30 days, to prepare and adopt the assessment.

(3) If the public water system fails to request an extension of time, or fails to submit the assessment notwithstanding the extension of time granted pursuant to paragraph (2), the city or county may seek a writ of mandamus to compel the governing body of the public water system to comply with the requirements of this part relating to the submission of the water supply assessment.

(h) Notwithstanding any other provision of this part, if a project has been the subject of a water supply assessment that complies with the requirements of this part, no additional water supply assessment shall be required for subsequent projects that were part of a larger project for which a water supply assessment was completed and that has complied with the requirements of this part and for which the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has concluded that its water supplies are sufficient to meet the projected water demand associated with the proposed project, in addition to the existing and planned future uses, including, but not limited to, agricultural and industrial uses, unless one or more of the following changes occurs:

(1) Changes in the project that result in a substantial increase in water demand for the project.

(2) Changes in the circumstances or conditions substantially affecting the ability of the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), to provide a sufficient supply of water for the project.

(3) Significant new information becomes available which was not known and could not have been known at the time when the assessment was prepared.

SEC. 5. Section 10911 of the Water Code is amended to read:
10911. (a) If, as a result of its assessment, the public water system concludes that its water supplies are, or will be, insufficient, the public water system shall provide to the city or county its plans for acquiring additional water supplies, setting forth the measures that are being undertaken to acquire and develop those water supplies. If the city or county, if either is required to comply with this part pursuant to subdivision (b), concludes as a result of its assessment, that water supplies are, or will be, insufficient, the city or county shall include in its water supply assessment its plans for acquiring additional water supplies, setting forth the measures that are being undertaken to acquire and develop those water supplies. Those plans may include, but are not limited to, information concerning all of the following:

(1) The estimated total costs, and the proposed method of financing the costs, associated with acquiring the additional water supplies.

(2) All federal, state, and local permits, approvals, or entitlements that are anticipated to be required in order to acquire and develop the additional water supplies.

(3) Based on the considerations set forth in paragraphs (1) and (2), the estimated timeframes within which the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), expects to be able to acquire additional water supplies.

(b) The city or county shall include the water supply assessment provided pursuant to Section 10910, and any information provided pursuant to subdivision (a), in any environmental document prepared for the project pursuant to Division 13 (commencing with Section 21000) of the Public Resources Code.

(c) The city or county may include in any environmental document an evaluation of any information included in that environmental document provided pursuant to subdivision (b). The city or county shall determine, based on the entire record, whether projected water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses. If the city or county determines that water supplies will not be sufficient, the city or county shall include that determination in its findings for the project.

SEC. 6. Section 10912 of the Water Code is amended to read:
10912. For the purposes of this part, the following terms have the following meanings:

(a) "Project" means any of the following:

(1) A proposed residential development of more than 500 dwelling units.

(2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.

(3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.

(4) A proposed hotel or motel, or both, having more than 500 rooms.

(5) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.

(6) A mixed-use project that includes one or more of the projects specified in this subdivision.

(7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

(b) If a public water system has fewer than 5,000 service connections, then ''project'' means any proposed residential, business, commercial, hotel or motel, or industrial development that would account for an increase of 10 percent or more in the number of the public water system's existing service connections, or a mixed-use project that would demand an amount of water equivalent to, or greater than, the amount of water required by residential development that would represent an increase of 10 percent or more in the number of the public water system's existing service connections.

(c) ''Public water system'' means a system for the provision of piped water to the public for human consumption that has 3000 or more service connections. A public water system includes all of the following:

(1) Any collection, treatment, storage, and distribution facility under control of the operator of the system which is used primarily in connection with the system.

(2) Any collection or pretreatment storage facility not under the control of the operator that is used primarily in connection with the system.

(3) Any person who treats water on behalf of one or more public water systems for the purpose of rendering it safe for human consumption.

SEC. 7. Section 10913 of the Water Code is repealed.

SEC. 8. Section 10915 of the Water Code is amended to read:
10915. The County of San Diego is deemed to comply with this part if the Office of Planning and Research determines that all of the following conditions have been met:

(a) Proposition C, as approved by the voters of the County of San Diego in November 1988, requires the development of a regional growth management plan and directs the establishment of a regional planning and growth management review board.

(b) The County of San Diego and the cities in the county, by agreement, designate the San Diego Association of Governments as that review board.

(c) A regional growth management strategy that provides for a comprehensive regional strategy and a coordinated economic development and growth management program has been developed pursuant to Proposition C.

(d) The regional growth management strategy includes a water element to coordinate planning for water that is consistent with the requirements of this part.

(e) The San Diego County Water Authority, by agreement with the San Diego Association of Governments in its capacity as the review board, uses the association's most recent regional growth forecasts for planning purposes and to implement the water element of the strategy.

(f) The procedures established by the review board for the development and approval of the regional growth management strategy, including the water element and any certification process established to ensure that a project is consistent with that element, comply with the requirements of this part.

(g) The environmental documents for a project located in the County of San Diego include information that accomplishes the same purposes as a water supply assessment that is prepared pursuant to Section 10910.

SEC. 9.

Section 3.5 of this bill incorporates amendments to Section 10631 of the Water Code proposed by both this bill and AB 901. It shall only become operative if (1) both bills are enacted and become effective on or before January 1, 2002, (2) each bill amends Section 10631 of the Water Code, and (3) this bill is enacted after AB 901, in which case Section 3 of this bill shall not become operative.

SEC. 10.

No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because a local agency or school district has the authority to levy service charges, fees, or assessments sufficient to pay for the program or level of service mandated by this act, within the meaning of Section 17556 of the Government Code.

APPENDIX B

CONSUMER CONFIDENCE REPORT

2017 Consumer Confidence Report

Water System Name: **Winton Water & Sanitary District** Report Date: 6/1/2018

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2016 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.

Type of water source(s) in use: Groundwater sources distributed throughout system by wells.

Name & general location of source(s): 3 active wells, 1 standby located within the distribution system

Drinking Water Source Assessment information: May 2003- three wells vulnerable to fertilizer, pesticide/herbicide application; historic waste dumps/landfills;construction/demolition staging areas. Full report available upon request at: 6951 N. Winton Way, Winton, CA 95388

Time and place of regularly scheduled board meetings for public participation: First and Third Thursdays of each month at 6951 N. Winton Way, Winton, CA 95388, 5:00PM

For more information, contact: Carlos Valencia, Maintenance Supervisor Phone: (209) 357-3562

TERMS USED IN THIS REPORT

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Variances and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (µg/L)

ppt: parts per trillion or nanograms per liter (ng/L)

ppq: parts per quadrillion or picogram per liter (pg/L)

of disinfectants to control microbial contaminants.	**pCi/L**: picocuries per liter (a measure of radiation)

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- *Microbial contaminants*, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the California Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, 5, 7, and 8 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(In a mo.)	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or *E. coli*	(In the year)	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or *E. coli*	0	Human and animal fecal waste

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper (complete if lead or copper detected in the last sample set)	Sample Date	No. of samples collected	90th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	7/12/2016	24	ND	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	7/12/2016	24	ND	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent	Sample	Level	Range of	MCL	PHG	Typical Source of Contaminant

(and reporting units)	Date	Detected	Detections		(MCLG)	
Sodium (ppm)	7/12/2017	24	22-84	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	7/12/2017	58	29-55	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

***Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided later in this report.**

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Source of Contaminant**
Aluminum (ppb)	6/02/2017	ND	ND<50	1000	N/A	Erosion of natural deposits; residue from some surface water treatment processes
Antimony (ppb)	6/02/2017	ND	ND-7	6	PHG	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	6/02/2017	3	2.8	50	N/A	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppb)	6/02/2017	128	140-140	1000	2000 ppb	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Beryllium (ppb)	6/02/2017	ND	ND-<.5	4	4 ppb MCLG	Discharge from metal refineries, coal burning factories and electrical, aerospace and defense industries
Cadmium (ppb)	6/02/2017	ND	ND-<1	5	.07 ppb PHG	Internal corrosion of galvanized pipes; erosion of natural deposits; discharge from electroplating and industrial chemical factories and metal refineries; runoff from waste batteries and paints
Chromium (ppb)	6/02/2017	ND	ND-3	50	2.5 ppb PHG	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Mercury (ppb)	6/02/2017	ND	ND-<.2	2	1.2 ppb PHG	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland
Nickel (ppb)		ND	ND-<.2	2	1.2 ppb PHG	Erosion of natural deposits; discharge from metal factories
Nitrate (as NO3) (ppm)	6/02/2017	22	12-28	45	45 ppb MCLG	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	6/02/2017	ND	ND-12	50	30 ppm PHG	Discharge from petroleum, glass and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
Thallium (ppb)	6/02/2017	ND	ND-<5	2	.01 MCLG	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
DBCP (ppb)	10/17/2017	ND	ND-0.2	0.2	0 ppb	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Color (Units)	5/23/2017	<5.0	<1-<1	15	N/A	Naturally-occurring organic materials
Foaming Agents (MBAS) Ppm	5/23/2017	<0.050	<.05	.5	N/A	Municipal and Industrial waste discharges
Iron (ppb)	5/23/2017	ND	ND-2.7	300	N/A	Leaching from natural deposits; industrial wastes
Manganese (ppb)	5/23/2017	ND	ND-92	50	N/A	Leaching from natural deposits
Odor-Threshold (ton)	5/23/2017	ND	1-1	3	N/A	Naturally-occurring organic materials
Silver (ppb)	5/23/2017	ND	ND-<5	100	N/A	Industrial discharges
Turbidity (NTU)	5/23/2017	<0.10	<.1-.18	5	N/A	Soil runoff
Zinc (ppb)	5/23/2017	ND	ND-<.02	5000	N/A	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved solids (ppm)	5/23/2017	220	200-300	500-1000-1500	N/A	Runoff/leaching from natural deposits
Specific Conductance (umho/cm)	5/23/2017	250	220-460	900-1600-2200	N/A	Substances that form ions when in water; seawater influence
Chloride (ppm)	5/23/2017	8.4	8.5-71	250-500-600	N/A	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	5/23/2017	12	2-13	250-500-600	N/A	Runoff/leaching from natural deposits; seawater influence

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS					
Chemical or Constituent (and reporting units)	**Sample Date**	**Range of Detections**	**Public Health Goal**	**Notification Level**	**Health Effects Language**
Boron	2003	<.03-.110		1 ppm	Some men who drink water containing boron in excess of the notification level over many years may experience reproductive effects, based on studies in dogs
Vanadium	2003	<5-21		50ppb	The babies of some pregnant women who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals

Trichloropropane (1,2,3 TCP) *	**10/17/2017**	**0.025**	**0052-.10**	**5 ppt**	Some people who use water containing 1,2,3- trichloropropane in excess of the Public Health Goal or Notification Levels over many years may have an increased risk of cancer, based on studies in laboratory animals

**Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.*

DISINFECTION BYPRODUCTS, DISINFECTANT RESIDUALS AND DISINFECTION BYPRODUCT PRECURSORS

Contaminant	Test Date	Level Detected	Range of Levels Detected	Traditional MCL or MDRL in mg/L	PHG (MCLG) or MRDLG	Typical Source of Contaminant
TTHMs (total Trihalomethanes) (ppb)	05/31/2017	ND	.56-.56	80	N/A	Byproduct of drinking water disinfection
HAA5 Total Haloacetic Acids	06/21/2017	ND	0.3-0.3	60	N/A	Byproduct of drinking water disinfection
Chlorine (ppm)	Daily	0.4	0.25-0.35	4.0 as CL2	4 (as CL2)	Drinking water disinfectant added for treatment

Additional General Information on Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Lead-Specific Language for Community Water Systems: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Winton Water & Sanitary District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT				
Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
1,2,3-TCP Trichloropropane Notification Level Only	Concentration level of a contaminant in drinking water delivered for human consumption that the department has determined, based on available scientific information may increase risk of cancer and warrants notification	**Ongoing**	Public notification and notification of governing body; voluntary quarterly monitoring; feasibility study of treatment alternatives	Some people who use water containing 1,2,3- trichloropropane in excess of notification level over many years may have an increased risk of getting cancer, based on studies in laboratory animals
NONE				

APPENDIX C

1, 2, 3-TCP CORRECTIVE ACTION PLAN

1,2,3-TCP CORRECTIVE ACTION PLAN
FOR THE
WINTON WATER & SANITARY DISTRICT
(Prepared July 27, 2018 by QK, Inc.)

BASIS FOR PROPOSED PROJECT

Background-

Starting on January 1, 2018 the maximum contaminant level (MCL) for 1,2,3-TCP (TCP) was set at 5 ng/L (ppt). Two of the District's three active wells (Wells 14 & 17) have sustained concentrations of TCP which exceed the new MCL, and these wells will require treatment or replacement. The water from the other active well (Well 15) is in compliance with the MCL.

Existing Active Wells-

Well 14

Well 14 is located in Winton on California Avenue just south of Olive Avenue (see attached aerial photo). The construction of Well 14 was completed in November of 1986, and it presently produces about 1,000 gpm. Due to the high capital and O&M costs to treat this well for TCP ,and its age, it will be destroyed and its capacity included in the capacity of proposed Well 18. Note that even if the capital and projected ongoing O&M costs for treatment were equal to or somewhat less than the cost to replace the well the District's Board of Directors would rather pay more to replace the well so that treatment could be avoided. They are very concerned about future O&M cost increases, future replacement costs and the complexity of treatment.

Well 15

Well 15 is located northeasterly of Winton on Buhach Road just south of Eucalyptus Avenue (see attached aerial photo). The construction of this well was completed in November of 1991. The water from this well is in compliance with the 1,2,3-TCP MCL. It produces about 2,000 gpm.

Well 17

Well 17 is located in Winton on Gertrude Avenue just west of Winton Way (see attached aerial photo). This well was completed in August of 2007 and it presently produces about 1,700 gpm. Like Well 14, due to the high capital and O&M costs required to treat for TCP the preferred alternative is to destroy this well. However, the settlement agreement requires that the District treat at least a portion of the existing capacity of Well 17. The minimum flow that can be treated efficiently using a lead-lag vessel layout is about 800 gpm, so Well 10 will be modified to have a treated capacity of about 800 gpm. The reduction in capacity (about 900 gpm) will be included in the capacity of proposed Well 18. As was stated for Well 14 above, even if the capital and projected ongoing O&M costs for treatment were equal to or somewhat less than the cost to replace the well the District's Board of Directors would rather pay more to replace the well so that treatment could be avoided. They are very concerned about future O&M cost increases, future replacement costs and the complexity of treatment.

Proposed Well 18-

The proposed capacity of Well 18 is:

1,000 gpm (Well 14 capacity) + 900 gpm (Well 17 capacity reduction) = 1,900 gpm

The proposed location of Well 18 is northeasterly of Winton at the intersection of Buhach Road and Mercedes Avenue (see attached aerial photo). This location was selected based on the following factors:

1. Locate the well in an area where 1,2,3-TCP was not applied:
   A map provided by the District's legal counsel during the TCP lawsuit showed that the fumigants that were used in the past (which included the 1,2,3-TCP by-product) were not applied east of Shaffer Road. This boundary is shown on the attached aerial photo. The proposed site is about 1 mile east of Shaffer Road/boundary.

2. Keep the proposed well location within a reasonable distance of existing water lines:
   There is an existing 18" water transmission line at the intersection of Buhach Road and Eucalyptus Avenue about ½ mile south of the proposed well site.

3. Provide an adequate distance between the proposed well and Well 15:
   Ken Schmidt, a qualified hydrogeologist, confirmed that the roughly ½ mile distance between Well 15 and proposed Well 18 would be adequate in this area.

4. Provide adequate distance from significant sources of contamination (e.g., dairies, ag wells, etc.):
   The 2, 5 & 10-year groundwater protection zone radii as calculated using the formula provided in the State DDW Drinking Water Source Assessment and Protection Program (DWSAP) document

(assuming 1,900 gpm and 125 feet of screen, which is the same as in existing Well 15) are 1,844 feet, 2,915 feet and 4,122 feet, respectively. Geotracker shows no hazardous waste sites within the 10-year radius. The seal in Well 18 will probably be at least 500' deep. There are only 3 ag wells with a depth greater than 300' within the 10-year radius, but they are all outside the 5-year radius. Given the probable seal depth in Well 18, the other contamination sources identified in the DWSAP that are within the 2, 5, and 10 year zones should not affect the water quality of Well 18.

Conclusion-

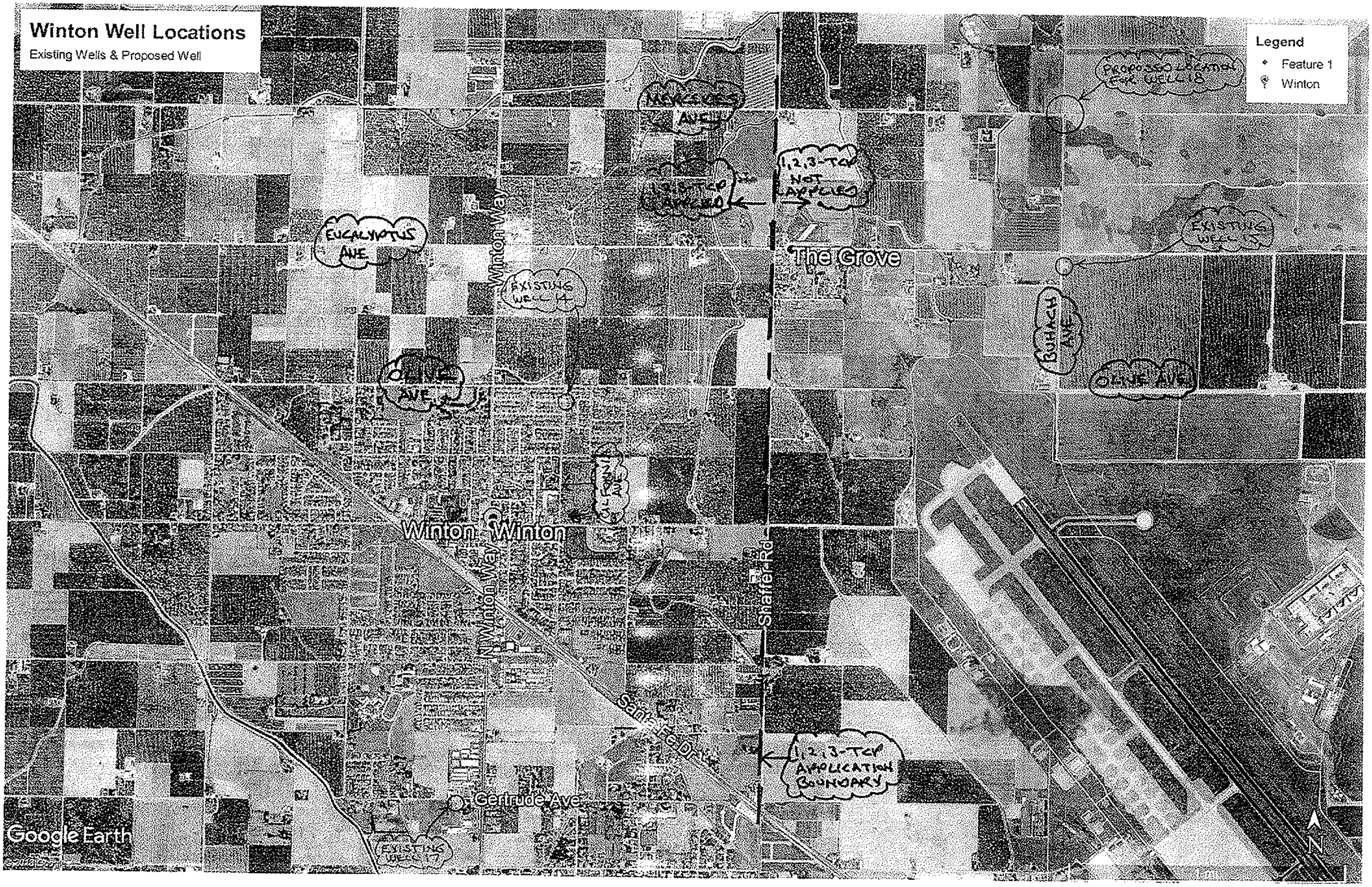
Based on the factors described above the only area that is suitable for a new well in the Winton area is near the intersection of Buhach Road and Mercedes Avenue.

PLAN OF ACTION

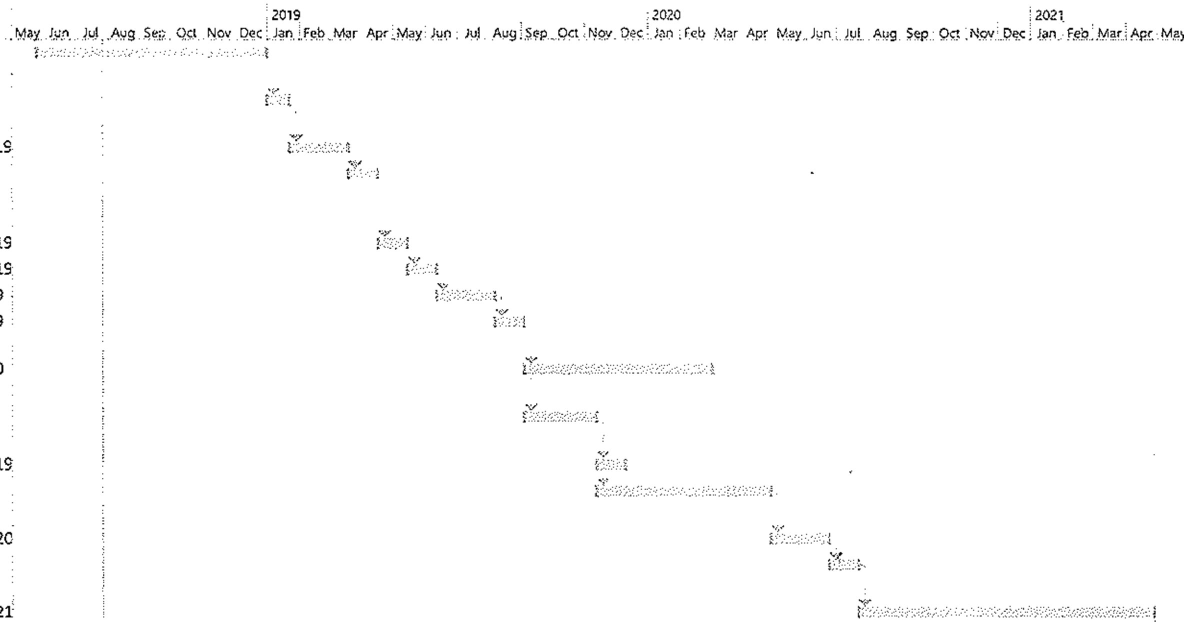
- Determine if County DEH will approve the construction of a 1,900 gpm well at the proposed location.
- If County DEH approves, prepare a map showing the location of the well site and meet with the Division of Drinking Water's representative for Winton at the site to determine if it is acceptable.
- Complete a preliminary CEQA review to determine if there are any "no go" issues, especially related to groundwater impacts.
- Execute a right of entry/acquisition agreement with the property owner.
- Drill a test well and take water samples. If results are acceptable, complete the CEQA documentation.
- Have Board consider and approve the CEQA document, and then approve the purchase of the property.
- Prepare an overall basis of design (including well, new transmission line, distribution system improvements, storage tank, etc.) and project cost estimate, and submit application for SRF grant/loan funding.
- Prepare construction plans and cost estimate.
- Advertise for bids.
- Complete construction and startup.

TIMELINE

See the attached Gantt chart timeline.


Winton Well Locations
Existing Wells & Proposed Well
Legend
Feature 1
Winton
PROPOSED LOCATION FOR WELL 18
MERCEDES AVE
1,2,3-TCP NOT APPLIED
1,2,3-TCP APPLIED
EUCALYPTUS AVE
Winton Way
EXISTING WELL 14
The Grove
EXISTING WELL 15
BUHACH AVE
OLIVE AVE
OLIVE AVE
CALIFORNIA AVE
Winton
Winton
N Winton Way
Shaffer Rd
Santa Fe Dr
1,2,3-TCP APPLICATION BOUNDARY
Gertrude Ave
EXISTING WELL 17
Google Earth
N

ID	Task Mode	Task Name	Duration	Start	Finish
1		Obtain County DEH approval to construct well as proposed	157 days	Fri 5/25/18	Mon 12/31/18
2		Review proposed well location with DDW	15 days	Tue 1/1/19	Mon 1/21/19
3		Complete preliminary CEQA review	40 days	Tue 1/22/19	Mon 3/18/19
4		Negotiate and execute right of entry/acquisition agreement with property owner	20 days	Tue 3/19/19	Mon 4/15/19
5		Prepare bid document for test hole	20 days	Tue 4/16/19	Mon 5/13/19
6		Advertise for bids for test hole	20 days	Tue 5/14/19	Mon 6/10/19
7		Drill test hole and take water sampl	40 days	Tue 6/11/19	Mon 8/5/19
8		Receive and evaluate water sample test results	20 days	Tue 8/6/19	Mon 9/2/19
9		Complete CEQA process/purhase property	130 days	Tue 9/3/19	Mon 3/2/20
10		Prepare basis of design and submit for District Board approval	50 days	Tue 9/3/19	Mon 11/11/19
11		Submit application for funding	20 days	Tue 11/12/19	Mon 12/9/19
12		Prepare construction plans and cost estimate	120 days	Tue 11/12/19	Mon 4/27/20
13		Advertise for bids	40 days	Tue 4/28/20	Mon 6/22/20
14		Award contract/Issue notice to proceed	20 days	Tue 6/23/20	Mon 7/20/20
15		Complete construction and startup	200 days	Tue 7/21/20	Mon 4/26/21



Project: Winton Corrective Action Plan
Date: Fri 7/27/18

Task	Project Summary	Manual Task	Start-only
Deadline	Split	Inactive Task	Duration-only
Finish-only	Progress	Milestone	Inactive Milestone
Manual Summary Rollup	External Tasks	Manual Progress	Summary
Inactive Summary	Manual Summary	External Milestone	

Appendix D

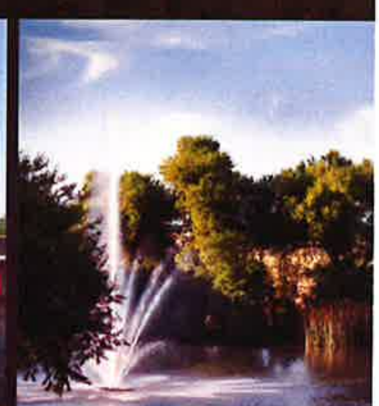
Executive Summary
Merced Groundwater Subbasin, Groundwater Sustainability Plan

MERCED SGMA

Merced Groundwater Subbasin

GROUNDWATER SUSTAINABILITY PLAN

Executive Summary



November 2019

EXECUTIVE SUMMARY

ES-1. INTRODUCTION AND PLAN AREA

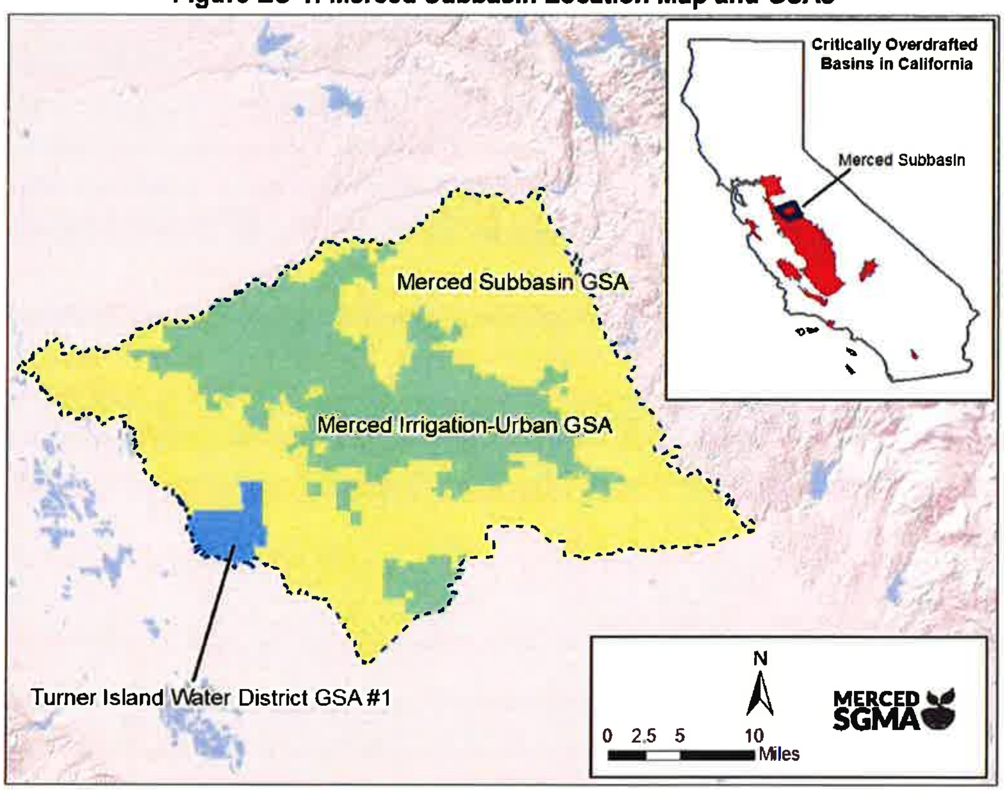
The Sustainable Groundwater Management Act (SGMA), passed in 2014, requires the formation of local Groundwater Sustainability Agencies (GSAs) to oversee the development and implementation of Groundwater Sustainability Plans (GSPs), with the ultimate goal of achieving sustainable management of California's groundwater basins. The purpose of this Groundwater Sustainability Plan is to bring the Merced Groundwater Basin (Merced Subbasin or Subbasin), a critically overdrafted basin located within the San Joaquin Valley (see Figure ES-1), into sustainable groundwater management by 2040. The Subbasin is heavily reliant on groundwater, and users recognize the basin has been in overdraft for a long period of time.

The County of Merced and water districts and cities within the Merced Subbasin formed three GSAs in accordance with SGMA: Merced Irrigation-Urban Groundwater Sustainability Agency (MIUGSA), Merced Subbasin Groundwater Sustainability Agency (MSGSA), and Turner Island Water District Groundwater Sustainability Agency #1 (TIWD GSA-1) (see Figure ES-1). The three GSAs coordinated efforts to develop this GSP for the Subbasin. With the adoption of this GSP, the GSAs will adopt the following sustainability goal for the Merced Subbasin:

> **"Achieve sustainable groundwater management on a long-term average basis by increasing recharge and/or reducing groundwater pumping, while avoiding undesirable results."**

This goal will be achieved by allocating a portion of the estimated Subbasin sustainable yield to each of the three GSAs and coordinating the implementation of programs and projects to increase both direct and in-lieu groundwater recharge, which will in turn increase the groundwater and / or surface water available in the Subbasin.

Figure ES-1: Merced Subbasin Location Map and GSAs



Development of the GSP was guided by a Coordinating Committee composed of members appointed by the GSA Boards to provide recommendations on technical and substantive basin-wide issues. The Coordinating Committee and GSA Boards were also informed by a Stakeholder Advisory Committee, which consisted of a broad group of groundwater beneficial users (also appointed by the GSA Boards) to review groundwater conditions, management issues and needs, and projects and management actions to improve sustainability in the basin. Extensive outreach was also conducted to seek input from additional beneficial users of groundwater through multiple venues including public workshops held in locations specifically selected to provide access to disadvantaged communities. Figure ES-2 illustrates the relationship among the groups described above.

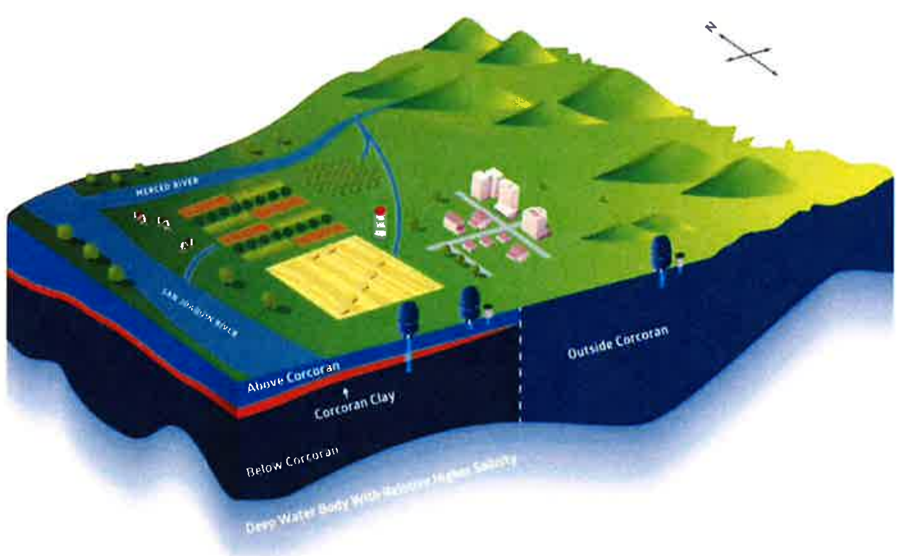
Figure ES-2: Diagram of Levels of Engagement and Decision-Making

ES-2. BASIN SETTING

Hydrogeologic Conceptual Model

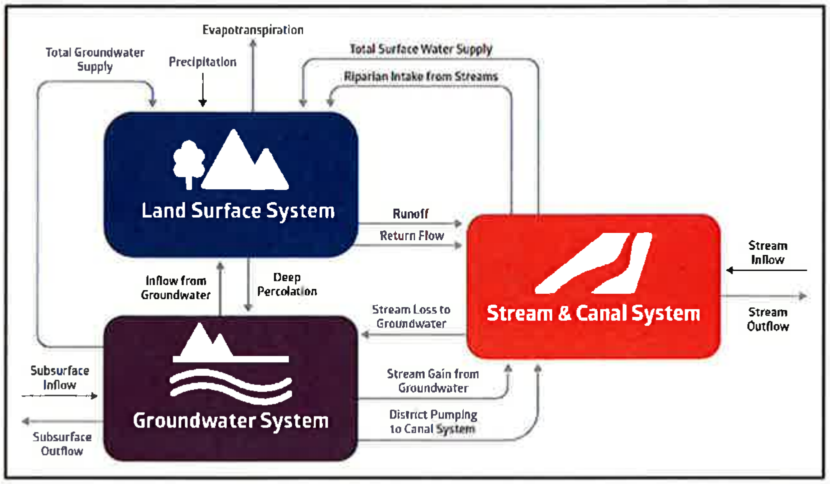
The Merced Subbasin contains three principal aquifers that are defined by their relationship to the Corcoran Clay aquitard, a laterally-extensive silt and clay layer that underlies approximately the western half of the Subbasin and acts as a significant confining layer. The **Above Corcoran Principal Aquifer** includes all aquifer units that exist above the Corcoran Clay Aquitard and generally contains moderate to large hydraulic conductivities and yields for domestic and irrigation uses. The **Below Corcoran Principal Aquifer** includes all aquifer units that exist below the Corcoran Clay Aquitard and contains hydraulic conductivities and yields ranging from small to large for irrigation as well as some domestic and municipal uses. The **Outside Corcoran Principal Aquifer** includes all aquifers that exist outside of the eastern lateral extent of the Corcoran Clay. The Outside Corcoran Principal Aquifer is connected laterally with the Above Corcoran Principal Aquifer at shallower depths and the Below Corcoran Principal Aquifer at deeper depths. Major uses of water in the Outside Corcoran Principal Aquifer include irrigation, domestic, and municipal uses. The Principal Aquifers are underlain by a deep aquifer with higher salinity relative to the principal aquifers. See Figure ES-3 for a 3D illustration demonstrating the relationship between the principal aquifers and Corcoran Clay aquitard

Figure ES-3: 3D Illustration of Merced Subbasin Principal Aquifers and Aquitard



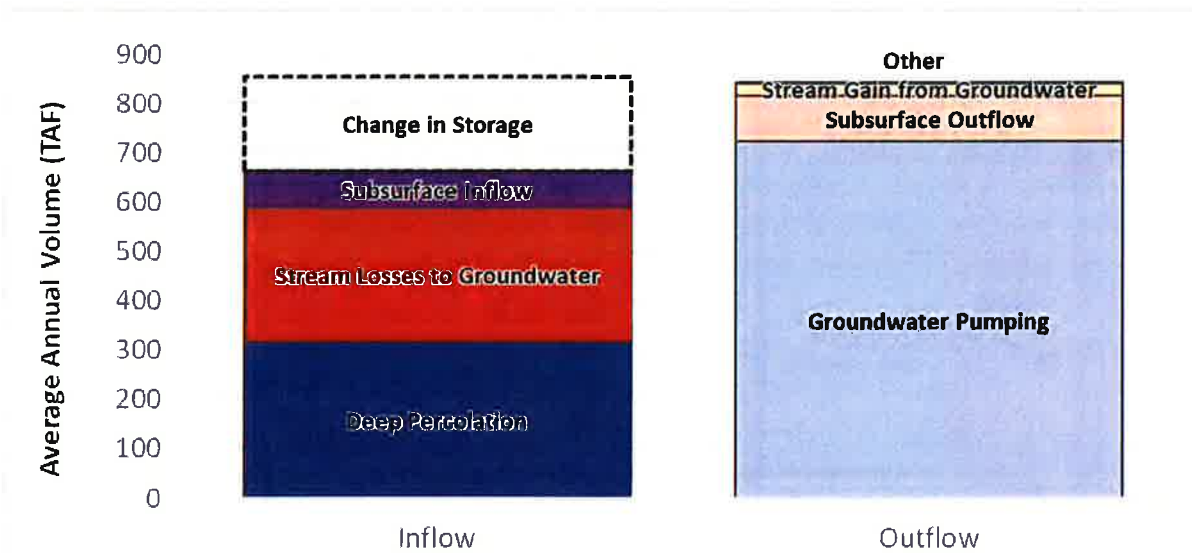
Water Budget Information

Figure ES-4: Generalized Water Budget Diagram



Water budgets provide quantitative accounting of water entering and leaving the Merced Subbasin and can be used to help estimate the extent of overdraft occurring now and in the future. Consistent with SGMA requirements, water budgets for historical, current, projected, and sustainable conditions were developed for the Merced Subbasin. These water budgets were developed using the Merced Water Resources Model (MercedWRM), a fully integrated surface and groundwater flow model developed and calibrated specifically for the Subbasin. See Figure ES-4 for a conceptual diagram of the inputs and outputs quantified by the model. The historical conditions water budget (see Figure ES-5) shows an annual average rate of overdraft ("Change in Storage") of 192,000 acre-feet per year (AFY) over water years 2006 through 2015. In this Figure, the "Change in Storage" represents the average annual decline in storage resulting from the Subbasin outflows, principally groundwater pumping.

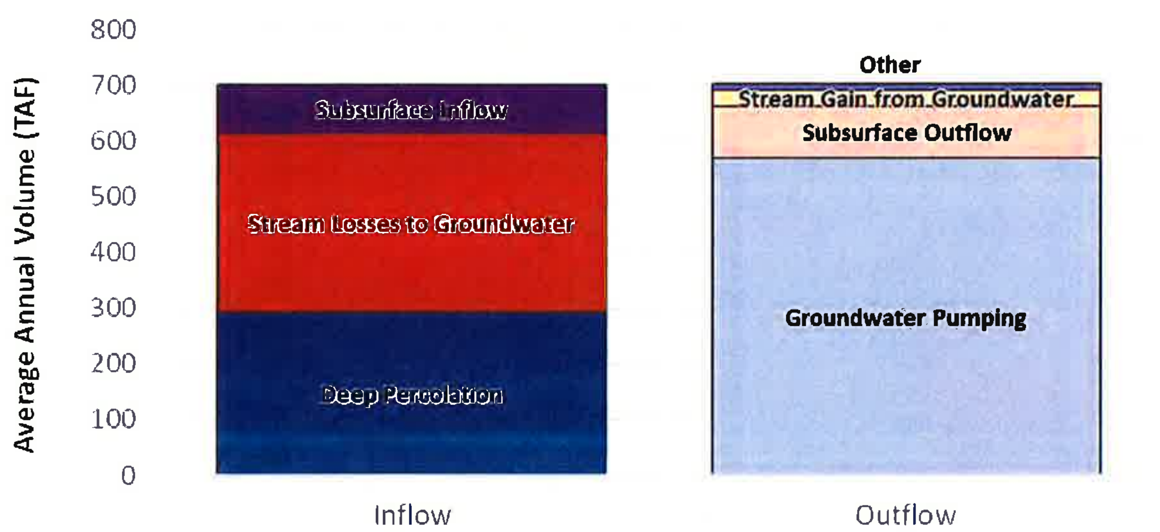
Figure ES-5: Historical Conditions Water Budget



SGMA defines sustainable yield as "the maximum quantity of water, calculated over a base period representative of long-term conditions in the basin and including any temporary surplus, that can be withdrawn annually from a groundwater supply without causing an undesirable result" (California Water Code §10721(w)).

For the Merced Subbasin, sustainable yield was estimated by modifying conditions in the groundwater model to balance out the change in stored water over time. In order to achieve a net-zero change in groundwater storage over a long-term average condition, current agricultural and urban groundwater demand in the Merced Subbasin would need to be reduced by approximately 10 percent, absent implementation of any new supply-side or recharge projects. Figure ES-6 illustrates the Subbasin water budget under long term sustainable conditions.

Figure ES-6: Groundwater Water Budget under Sustainable Groundwater Management Conditions Long-Term (50-Year) Average Annual



ES-3. SUSTAINABLE MANAGEMENT CRITERIA

SGMA requires consideration of six sustainability indicators. For each indicator, the GSP must define undesirable results for the basin ("significant and unreasonable" negative impacts) and determine if they could occur. For the indicators with the potential for undesirable results, the GSP must establish sustainable management criteria that are intended to prevent undesirable results from occurring and establish a monitoring network.

Sustainable management criteria were developed to be protective of beneficial uses in the Merced Subbasin and to support the Subbasin's sustainability goal. Demonstration by 2040 of stable groundwater elevations on a long-term average basis, combined with the absence of undesirable results, will support a determination that the basin is operating within its sustainable yield, and thus that the sustainability goal has been achieved.

A summary of the sustainable management criteria for the Merced Subbasin is shown in Table ES-1.

Table ES-1: Summary of Sustainable Management Criteria

Sustainability Indicator	Minimum Threshold (MT)	Measurable Objective	Undesirable Result
Groundwater Levels	Depth of shallowest well in a 2-mile radius of each representative well or minimum pre-January 1, 2015, elevation	Projected average future groundwater level under sustainable yield modeling simulation	Greater than 25% of representative wells fall below MT in 2 consecutive wet, above normal, or below normal years[1]
Groundwater Storage	Not applicable - not present and not likely to occur in the Subbasin due to the significant volumes of freshwater in storage		
Seawater Intrusion	Not applicable - not present and not likely to occur due to the distance between the Subbasin and the Pacific Ocean (and Sacramento-San Joaquin Delta)		
Degraded Water Quality	1,000 mg/L TDS	500 mg/L TDS	At least 25% representative wells exceed MT for 2 consecutive years
Land Subsidence	-0.75 ft/year	-0.25 ft/year	Exceedance of MT at 3 or more representative sites for 2 consecutive years
Depletions of Interconnected Surface Waters	Groundwater levels used as a proxy for this sustainability indicator		

There are two sustainability indicators deemed not applicable to the Merced Subbasin. Undesirable results related to significant and unreasonable **depletions of groundwater storage** are not present and not likely to occur in the Subbasin, since historical reductions have been insignificant relative to the total volume of freshwater water storage in the Subbasin. **Seawater intrusion** is not an applicable sustainability indicator because seawater intrusion is not present and is not likely to occur due to the distance between the Subbasin and the Pacific Ocean (and Sacramento-San Joaquin Delta).

For the remaining sustainability indicators, sustainable management criteria were established to be protective of Subbasin beneficial uses as described below.

Minimum thresholds for **chronic declining groundwater levels** were developed based on records of well depth for the shallowest domestic wells within a 2-mile radius of each representative monitoring well. This methodology is intended to be protective against significant and unreasonable dewatering of domestic wells. Since domestic wells are generally shallower than agricultural and municipal, this is also protective of these other well types. Sustainable management criteria for declining groundwater levels were developed with a dataset including historical groundwater levels, Merced County's well permitting database, and simulated groundwater levels from the MercedWRM. Groundwater levels are also being used as a proxy indicator for depletion of interconnected surface waters.

[1] *Water year types based on San Joaquin Valley Water Year Index* (DWR, 2017c)

Degraded water quality is unique among the six sustainability indicators because it is already the subject of extensive federal, state, and local regulations carried out by numerous entities, and SGMA does not directly address the role of GSAs relative to these other entities (Moran & Belin, 2019). SGMA does not specify water quality constituents that must have minimum thresholds. Groundwater management is the mechanism available to GSAs to implement SGMA. Establishing minimum thresholds for constituents that cannot be managed by increasing or decreasing pumping was deemed inappropriate by the GSAs and basin stakeholders. The major water quality issue being addressed by sustainable groundwater management is the migration of relatively higher salinity water into the freshwater principal aquifers. The nexus between water quality and water supply management exists for the pumping-induced movement of low-quality water from the west and northwest to the east. Other water quality concerns are being addressed through various water quality programs and agencies that have the authority and responsibility to address them.

Within the Merced Subbasin, while **land subsidence** has been recognized by the GSAs as an area of concern, it is not considered to have caused a significant and unreasonable reduction in the viability of the use of infrastructure. However, it is noted that subsidence has caused a reduction in freeboard of the Middle Eastside Bypass over the last 50 years and has caused problems in neighboring subbasins, highlighting the need for ongoing monitoring and management in the Merced Subbasin. Thus, sustainable management criteria were established based on historical rates of subsidence in the Subbasin, and the GSAs will continue to coordinate efforts with surrounding subbasins to develop regional or local solutions to subsidence occurring in the Merced, Chowchilla, and Delta-Mendota Subbasins.

Depletions of interconnected surface waters will be managed using groundwater levels as a proxy due to the challenges associated with directly measuring streamflow depletions and because of the significant correlation between groundwater levels and depletions.

ES-4. MONITORING NETWORKS

Consistent with SGMA requirements, the GSAs plan to establish monitoring networks for each sustainability indicator to monitor trends in the Subbasin and evaluate GSP implementation against sustainable management criteria. The groundwater level monitoring network consists of wells from the California Statewide Groundwater Elevation Monitoring (CASGEM) Program that were selected to provide representative conditions for groundwater levels across the Subbasin. The groundwater quality monitoring network includes a combination of wells in the Subbasin that are part of the East San Joaquin Water Quality Coalition Groundwater Quality Trend Monitoring Program as well as public water system wells that report data to the Division of Drinking Water. The subsidence monitoring network relies on control points monitored by the United States Bureau of Reclamation as part of the San Joaquin River Restoration Program. While the monitoring networks reflect a robust history of monitoring Subbasin conditions, data gaps exist, and plans to fill these data gaps for each sustainability indicator are also described in this GSP.

ES-5. DATA MANAGEMENT SYSTEM

The Merced Subbasin Data Management System (DMS) was developed to serve as a data sharing portal to enable utilization of the same data and tools for visualization and analysis to support sustainable groundwater management and transparent reporting of data and results. Monitoring data can be manually input by users or batch uploaded via template and is expected to include groundwater level, groundwater quality, streamflow, and subsidence data. All monitoring locations can be viewed spatially (map or list format) and data records per site can be viewed temporally (chart or list format). Ad-hoc queries and standard reports will greatly assist in answering questions about basin characterization, providing input for decision-making, and developing reports to meet annual report submittal requirements.

ES-6. PROJECTS AND MANAGEMENT ACTIONS TO ACHIEVE SUSTAINABILITY GOAL

SGMA requires that GSPs describe the projects and management actions to be implemented as part of bringing the Subbasin into sustainability. The primary means for achieving sustainability in the basin will be reduction in groundwater pumping achieved through implementation of an allocation framework to allocate the sustainable yield of the basin to the GSAs. A water allocation framework has been the subject of much discussion during GSP development. The GSAs have agreed that they intend to allocate water to each GSA but have not yet reached agreement on allocations or how they will be implemented. Such an agreement will be developed during GSP implementation.

The GSP identifies a shortlist of 12 priority projects that met a series of screening criteria for implementation (see Table ES-2) as well as a longer list of possible future projects that were identified during GSP development. Projects and management actions will either increase surface water supplies to augment the sustainable groundwater yield or will increase groundwater recharge, which will in turn increase the amount of groundwater that may be sustainably used.

Table ES-2: Projects Shortlist for Merced Subbasin Groundwater Sustainability Plan*

Project Name	Current Status	Expected Completion	Estimated Cost
Project 1: Planada Groundwater Recharge Basin Pilot Project	Planning, to be implemented with DWR Grant Funding	12/17/2023	$395,292
Project 2: El Nido Groundwater Monitoring Wells	Planning, to be implemented with DWR Grant Funding	12/31/2019	$400,000
Project 3: Meadowbrook Water System Intertie Feasibility Study	Planning	06/2020	$100,588
Project 4: Merquin County Water District Recharge Basin	Planning/Initial Study	12/15/2021	$1,400,000
Project 5: Merced Irrigation District to Lone Tree Mutual Water Company Conveyance Canal	Conceptual	11/2020	$3-6,000,000
Project 6: Merced IRWM Region Climate Change Modeling	Design	4/30/2021	$250,000
Project 7: Merced Region Water Use Efficiency Program	Design	12/31/2020	$500,000
Project 8: Merced Groundwater Subbasin LIDAR	Planning/Initial Study	12/2020	$150,000
Project 9: Study for Potential Water System Intertie Facilities from MID to LGAWD and CWD	Design Complete	06/01/2020	$100,000
Project 10: Vander Woude Dairy Offstream Temporary Storage	Planning/Initial Study & Conceptual Design	05/2020	$750,000
Project 11: Mini-Big Conveyance Project	Planning	06/2026	$ 6-8,000,000
Project 12: Streamlining Permitting for Replacing Sub-Corcoran Wells	Planning	1/31/2020	$75,000

*Information provided by project proponents.

ES-8. PLAN IMPLEMENTATION

Implementation of the GSP will be a substantial undertaking that will include implementation of the projects and management actions as well as GSAs administration, public outreach, implementation of the monitoring programs and filling data gaps, development of annual reports, and development of a 5-year update and report. The GSAs have developed an implementation schedule (see Table ES-3) and estimated costs for all activities, as well as potential funding mechanism options. Implementation of the GSP is projected to run between $1.2M and $1.6M per year. Costs for projects and management actions are estimated to be an additional $22.9M in total, with costs for individual projects or management actions ranging between $75,000 to $8M in total.

Table ES-3: GSP Implementation Schedule

2020 2025 2030 2035 2040

Monitoring and Reporting	Preparation for Allocations and Low Capital Outlay Projects	Prepare for Sustainability	Implement Sustainable Operations
• Establish monitoring network • Install new monitoring wells • Reduce/fill data gaps	• Conduct 5-year evaluation/update • Monitoring and reporting continue	• Conduct 5-year evaluation/update • Monitoring and reporting continue	• Conduct 5-year evaluation/update • Monitoring and reporting continue
• GSAs allocated initial allocations • GSAs establish their allocation procedures and demand reduction efforts • Develop metering program	• As-needed demand reduction to reach Sustainable Yield allocation • Metering program continues	• As-needed demand reduction to reach Sustainable Yield allocation	• Full implementation demand reduction as needed to reach Sustainable Yield allocation by 2040
• Funded and smaller projects implemented	• Planning/ design/ construction for small to medium sized projects	• Planning/ design/ construction for larger projects begins	• Project implementation completed
• Extensive public outreach regarding GSP and allocations	• Outreach regarding GSP and allocations continues	• Outreach continues	• Outreach continues

Appendix I: Energy Calculations

Energy Appendix

A. Assumptions
B. Energy Calculations
C. EMFAC2017

Energy Appendix

A. Assumptions

Winton

Project Construction Assumptions

CalEEMod Inputs (Non-Default information only)

Project Location	
County	Merced
Air District	SJVAPCD
Climate Zone	3
First Construction Year	2020
First Operational Year	2021
Buildout Year	2035
Utility Provider	PG&E

Land Use	Sq Ft	KSF	(Units/Students)	Acers	CalEEMod Land Use Type	
	10% total Buildout (one year construction activities)					
Residential						
Single Family Residential			165.00	49.00	Single Family Residential	
Apartment Mid-Rise			3.00	1.00	Apartment Mid Rise	
Non-Residential						
Shopping Center	36,947	36.95		3.47	Strip Mall	
General Office	25,520	25.52		1.60	General Office	
Industrial Park	61,865	61.87		5.10	Industrial Park	
Demolition						
Residential	3,600	3.60	2	0.16		1179.35
Non-Residential	1,117	1.12		0.11		372.4667

Note: As a conservative estimate of emissions, 10% of total square footage and dwelling units is assumed to be built in one year beginning in 2020. Construction is based on square footage or number of dwelling units developed and not land use type, therefore the landuse type developed is irrelevant in determining construction emissions. Due to the numerous types of land-use that will be developed throughout the Community Plan development peroid, it was assumed that up to 5 individual development projects would occur during any one year. Construction modeling accounts for average duration and equipment usage based on development of 1/10 of the residential and 1/10 of the non-residential development within one year. As land use type is not critical to construction emissions and an average composit emission scenario was determined, Construction modeling only shows development of 165 homes on 49 acres of land. Architectural Coating is modeled separately for 1/10 of each landuse type.

Winton

Project Construction Assumptions

Construction Schedule

Phases (if applicable)		CalEEMod Default (# Days)	Project Revised (# Days)	Start (month/date/year)	Finish (month/date/year)
Residential					
	Demolition	70	14	1/1/2020	1/20/2020
	Site Preparation	40	8	1/21/2020	1/30/2020
	Grading/Excavation	110	22	2/1/2020	3/3/2020
	Building Construction	1110	217	3/4/2020	12/31/2020
	Paving	75	75	3/4/2020	6/16/2020
	Architectural Coating	75	75	9/18/2020	12/31/2020
Construction days*		1330	260		
Shopping Center					
	Demolition	20	20	1/1/2020	1/28/2020
	Site Preparation	5	5	1/29/2020	2/4/2020
	Grading/Excavation	8	8	2/5/2020	2/14/2020
	Building Construction	230	227	2/15/2020	12/29/2020
	Paving	18	18	2/15/2020	3/11/2020
	Architectural Coating	18	18	12/8/2020	12/31/2020
Construction days*		263	260		
General Office					
	Demolition	20	20	1/1/2020	1/28/2020
	Site Preparation	3	3	1/29/2020	1/31/2020
	Grading/Excavation	6	6	2/1/2020	2/10/2020
	Building Construction	220	220	2/11/2020	12/14/2020
	Paving	10	10	2/11/2020	2/24/2020
	Architectural Coating	10	10	12/15/2020	12/28/12020
Construction days*		249	260		
Industrial					
	Demolition	20	19	1/1/2020	1/27/2020
	Site Preparation	10	9	1/28/2020	2/7/2020
	Grading/Excavation	20	19	2/8/2020	3/5/2020
	Building Construction	230	214	3/6/2020	12/30/2020
	Paving	20	20	3/6/2020	4/2/2020
	Architectural Coating	20	20	12/4/2020	12/31/2020
Construction days*		280	260		

*Modeling assumes up to 5 projects can occur during the same year totaling 1/10th of total buildout construction activity. Because exact phasing of construction is not known, an average project length has been determined based on CalEEMod defaults for building 1/10th of each landuse type to be constructed. This assumes all project construction occurrs within one year. This is a conservative approach as total buildout is scheduled for 15 years and it is unknown if all development will actually occur. This approach provides for maximum flexibility in building out the community plan.

Winton

Project Construction Assumptions

All remaining construction information uses Default settings, with the exception of Silt loading and construction equipment as discussed below.

Soils are anticipated to be balanced onsite
Silt loading is the same as used for operational purposes and based on Merced County specifics
Equipment defaults used

Winton

Project Construction Assumptions

Construction Equipment by phase (Assumes one Project's worth of equipment per phase)

	Daily Worker	Trips Daily Vendor	Total Haul
Residential			
Demolition	15		16
Site Preparation	18		
Grading/Excavation	20		
Building Construction	152	54	
Paving	15		
Architectural Coating	30		
Shopping Center			
Demolition	15		2
Site Preparation	18		
Grading/Excavation	15		
Building Construction	39	17	
Paving	20		
Architectural Coating	8		
General Office			
Demolition	13		2
Site Preparation	8		
Grading/Excavation	10		
Building Construction	22	10	
Paving	15		
Architectural Coating	4		
Industrial			
Demolition	15		2
Site Preparation	18		
Grading/Excavation	15		
Building Construction	72	28	
Paving	15		
Architectural Coating	14		
Miles per trip	10.8	7.3	20

Winton

Project Construction Schedule

Phase #	PhaseName	SFR	Apt	GO	SM	IP	Average
1	Demolition	50	10	20	20	20	24
2	Site Preparation	30	1	2	5	10	10
3	Grading	75	2	4	8	20	22
4	Building Construction	740	100	200	230	230	300
5	Paving	55	5	10	18	20	22
6	Architectural Coating	55	5	10	18	20	22

		SFR		Apartment		General Office		Strip Mall		Industrial Park		Average	
PhaseName	**OffRoadEquipmentType**	**#**	**Hours**	**#**	**Hours**	**#**	**Hours**	**#**	**Hours**	**#**	**Hours**	**#**	**Hours**
Demolition	Concrete/Industrial Saws	1	8	1	8	1	8	1	8	1	8	1	8
Demolition	Excavators	3	8	0	0	0	0	3	8	3	8	2	5
Demolition	Rubber Tired Dozers	2	8	1	8	1	8	2	8	2	8	2	8
Demolition	Tractors/Loaders/Backhoes	0	0	3	8	3	8	0	0	0	0	2	4
Site Preparation	Graders	0	0	1	8	1	8	0	0	0	0	1	4
Site Preparation	Rubber Tired Dozers	3	8	1	7	1	7	3	8	3	8	3	8
Site Preparation	Tractors/Loaders/Backhoes	4	8	1	8	1	8	4	8	4	8	3	8
Grading	Excavators	2	8		0	0		1	8	1	8	1	6
Grading	Graders	1	8	1	6	1	6	1	8	1	8	1	8
Grading	Rubber Tired Dozers	1	8	1	6	1	6	1	8	1	8	1	8
Grading	Scrapers	2	8	0	0	0	0	0	0	0	0	1	2
Grading	Tractors/Loaders/Backhoes	2	8	1	7	1	7	3	8	3	8	2	8
Building Construction	Cranes	1	7	1	6	1	6	1	7	1	7	1	7
Building Construction	Forklifts	3	8	1	6	1	6	3	8	3	8	3	8
Building Construction	Generator Sets	1	8	1	8	1	8	1	8	1	8	1	8
Building Construction	Tractors/Loaders/Backhoes	3	7	1	6	1	6	3	7	3	7	3	7
Building Construction	Welders	1	8	3	8	3	8	1	8	1	8	2	8
Paving	Cement and Mortar Mixers	0	0	1	6	1	6	2	6	0	0	1	4
Paving	Pavers	2	8	1	6	1	6	1	8	2	8	2	8
Paving	Paving Equipment	2	8	1	8	1	8	2	6	2	8	2	8
Paving	Rollers	2	8	1	7	1	7	2	6	2	8	2	8
Paving	Tractors/Loaders/Backhoes			1	8	1	8	1	8	0	0	1	6
Architectural Coating	Air Compressors	1	6	1	6	1	6	1	6	1	6	1	6

Winton

Project Operational Assumptions

CalEEMod Inputs (Non-Default information only)

Project Location	
County	Merced
Air District	SJVAPCD
Climate Zone	3
Initial Operational Year	2021
Buildout Year	2035
Utility Provider	PG&E

	2020	2021	2030	2035
CO intensity	625.966	610.932	382.687	255.124
% renewable	34.57%	36.14%	60.00%	73.33%

[1] http://www.pgecorp.com/corp_responsibility/reports/2016/en02_climate_change.jsp

[2] http://www.cpuc.ca.gov/renewables/

Land Use	**Sq Ft**	**KSF**	**Units/Students**	**Acers**	**CalEEMod Land Use Type**
Residential					
Single Family Residential			1,647	488	
VLD			133	126.43	
LD			875	159.43	Single Family Residential
MDR - Detached			639	202.10	
Apartment Mid-Rise					
MU - Residential			29	2.34	Apartment Mid Rise
Non-Residential					
Shopping Center	369,469	369		35	
GC	249,547	249.55		23.94	
NC	67,543	67.54		6.06	Strip Mall
Commercial Transition	28,500	28.50		4.00	
Mixed Use	23,879	23.88		0.67	
General Office	255,204	255.20		16.01	
Business Park	183,567	183.57		13.99	General Office
Mixed Use	71,637	71.64		2.02	
Industrial Park	618,654	618.65		50.95	
Industrial Park	67,953	67.95		8.99	Industrial Park
Business Park	550,701	550.70		41.97	

	Existing	Future	Project	
Service Population	10,067	15629	5,562	employees
Service Population (# Employees)	1,149	4228	3,079	Residents
	11,216	19,857	8,641	Total

Note: The square footage used in the Air Quality and GHG modeling is the gross square footaage to accurately account for the amount of emissions generated by the operation of the existing and project land uses.

Winton
Project Operational Assumptions

Transportation:

Trip Generation

	Traffic Study			Project			
	trips	Adj. Trips[1]		**Weekday**	**Saturday**	**Sunday**	
Single Family Residential	15,548	15,548		9.44	9.83	8.55	per DU
SFR+School				11.40	10.08	8.65	per DU
Apartment Mid-Rise	212	212		7.31	7.02	6.44	per DU
Shopping Center	13,945	9,204		24.91	23.63	11.48	per KSF
General Office	2,703	2,703		10.59	2.36	1.01	per KSF
Industrial Park	3,727	3,727		6.02	2.20	0.64	per KSF
School	3,227	3,227		1.96	0.26	0.11	Per DU
	39,362	34,621	(Total from given above)				
	38,362	33,621	(Totals presented in trip gen)				

*Based on Traffic Study Information as provided.

1 shopping center Trips adjusted based on an approximately 34 percent reduction due to Pass-by trips for strip mall (retail) uses.

2 School trips from new students are accounted for in SFR trips as no new schools are being built.

VMT	Existing	E+P	Winton	Future	F+P	Winton (daily)	Winton (annual)
	219,779	468,479	248,700	293,075	608,102	315,027	114,984,855

VMT Revisions in CalEEMod

	Default VMT	**% Default**	**Traffic Study**	**Needed VMT**	Increase from Default	Revised VMT	:alEEMod Output
Apartment Mid Rise	814,483	0.77%		880,060	65,577	880,060	
General Office	5,455,939	5.13%		5,895,216	439,277	5,895,216	
Industrial Park	7,735,614	7.27%		8,358,436	622,822	8,358,436	
Single Family Residential	70,046,857	65.82%		75,686,581	5,639,724	75,686,581	
Strip Mall	22,363,959	21.02%		24,164,562	1,800,603	24,164,562	
Total	106,416,852		114,984,855			114,984,855	114,998,793
	8%						

Notes: Using 100% primary trips and 100% H-W or C-C total VMT equals 106,416,852

Change in Trip Length

	Original	**Increase**	**Revised**	**Revised2**
Residential	10.80	0.87	11.67	11.67
Commercial	7.30	0.59	7.89	7.87
Industrial			7.89	7.88
CalEEMod VMT Output:			114,998,793	114,985,017
Difference:			13,938	162
				(Used)

Entrained Road Dust

(Merced County)	Freeway	Major	Collector	Local	Total	Composit
Travel Fractions	0.244	0.527	0.125	0.104	1	
Silt Loading	0.02	0.032	0.032	0.32		0.059024

*CARB 2014. *Miscellaneous Process Methodology 7.9 Entrained Road Travel, Paved Road Dust. Revised April 2014*

Winton

Project Operational Assumptions

The default CalEEMod fleet mix for Merced County has heavy duty trucks at 15.08 percent of the total fleet. This is due to the rural nature of the county and the amount of agriculture that occurs. The proposed project is a mix of residential, commercial, and retail uses which would not see that level of intensity of heavy duty trucks. Based on the type of development expected within the project area it is not anticpated that the heavy duty truck trips would exceed this level. Therefore, the fleet mix for the project was adjusted to reduce heavy duty vehicle trips to 2 percent as shown below.

	Default	Revised
LDA	0.53395324	0.62414691
LDT1	0.04020449	0.0469957
LDT2	0.13	0.14953085
MDV	0.0897003	0.10485218
LHD1	0.01505015	0.01759237
LHD2	0.00399704	0.00467221
MHD	0.01804909	0.02109788

	Default	Revised
HHD	0.161616967	0.02
OBUS	0.001441866	0.0016854
UBUS	0.001280721	0.0014971
MCY	0.004728537	0.0055273
SBUS	0.001593712	0.0018629
MH	0.00046132	0.0005392
Total	1	1

Winton
Project Operational Assumptions

Area Source Defaults

Energy Use

Electricity Defaults adjusted for Title 24 changes for Project, Existing usage provided.

Natural Gas Defaults adjusted for Title 24 changes for Project, Existing usage provided.

CalEEMod currently uses 2016 Title 24 efficiency standards. The project will be built post 2019 therefore as a conservative estimate of T24 efficiencies required, the emission factors are updated to account for the inclusion of 2019 Title 24 standards. Existing consumption was based on the average consumption over the last 7 years as provided (Source: Miramar UTILITIES Stats 2011-2017 aug.xls).

	T24 Electricity	Lighting	T24 NG
Residential 2019	7%	0%	7%
Non-Residential 2019	30%	0%	30%

Default	T24 Electricity	Lighting	T24 NG
Single Family Residential	995.93	1,608.84	22,422.24
Apartment Mid-Rise	700.71	741.44	8,454.86
Shopping Center	2.14	3.71	8.62
General Office	2.62	2.92	12.77
Industrial Park	2.62	2.92	1.28

		Project	
	T24 Electricity	Lighting	T24 NG
Single Family Residential	926.215	1,608.840	20,852.683
Apartment Mid-Rise	651.660	741.440	7,863.020
Shopping Center	1.498	3.710	6.034
General Office	1.834	2.920	8.939
Industrial Park	1.834	2.920	0.894

Winton

Project Operational Assumptions

Water Use Default

Removal of Septic

Septic	Aerobic	Lagoons
10.33	87.46	2.21
	0.98	0.02
	10.08	0.25
0.00	97.54	2.46

* Multifamily indoor water use reduced by 35%

*Multifamily outdoor water use reduced by 25%

Title 24 2013 20% indoor for Non-Residential

Solid Waste Generation:

	Tons/year			
	2035			
	CalEEMod	**Reduced[2]**		
Single Family Residential	1695.60	712.15	0.571151489	33.12678637
Apartment Mid-Rise	13.34	5.60	0.00449349	0.260622393
Shopping Center	387.94	147.42	0.118229751	7.330244534
General Office	237.34	90.19	0.072332446	4.484611635
Industrial Park	767.13	291.51	0.233792825	14.49515515
	3,101.35	1,246.87	1.00	0.596974201

[2] CalEEMod doesn't take into account the fact that California on a whole has reduced waste to landfill by 62% for employee and 58% for Residential. Modeling accounts for recycling based on land use types. http://www.calrecycle.ca.gov/lgcentral/goalmeasure/disposalrate/Graphs/EstDiversion.htm. Data from 2017 accessed April 2020.

Energy Appendix

B. Energy Calculations

Winton
Construction Energy Summary

Construction Fuel Consumption Summary

	gallons		
Phase	**Diesel**	**Gas**	**# Years**
Residential	***96,917***	***15,684***	1
Shopping Center	***36,616***	***4,182***	
General Office	***6,029***	***2,269***	
Industrial	***39,664***	***7,058***	
Annual Average	179,226	29,194	
Total Construction	***1,792,261***	***291,938***	10.00
Annual Average	179,226	29,194	
County Usage[1]	35,000,000	115,000,000	
Project % County	0.5121%	0.0254%	
Project % County	0.5121%	0.0254%	

Construction	Total Gallons	
Residential		
Onsite Equipment	85,407	diesel
Haul Trucks	86	diesel
Vendor Trucks	11,425	diesel
Worker Trips	15,684	gasoline
Shopping Center		
Onsite Equipment	32,792	diesel
Haul Trucks	61	diesel
Vendor Trucks	3,763	diesel
Worker Trips	4,182	gasoline
General Office		
Onsite Equipment	3,823	diesel
Haul Trucks	61	diesel
Vendor Trucks	2,145	diesel
Worker Trips	2,269	gasoline
Industrial		
Onsite Equipment	33,764	diesel
Haul Trucks	58	diesel
Vendor Trucks	5,842	diesel
Worker Trips	7,058	gasoline

Operational Energy Summary

Annual Operational Energy Consumption

	gallons		MMBTU/yr	GWh/yr
	Diesel	**Gas**	**Natural Gas**	**Electric**
Unmitigated	1,107,701	1,162,626	48,004.41	24.49
% of County (2018)	*3.16%*	*1.01%*	0.3990%	0.687%
% PG&E (2018)			0.0054%	0.028%
% PG&E (2021/2022)			0.0058%	0.024%
% State	0.0303%	0.0086%		
Mitigated	1,107,701	1,162,626	1,122.97	0.00
% of County (2018)	*3.16%*	*1.01%*	0.0093%	0.000%
% PG&E (2018)			0.0001%	0.000%
% PG&E (2021/2022)			0.0001%	0.000%
% State	0.0303%	0.0086%		

Natural Gas & Electricity

	kBTU	MMBTU	kWh	GWh	MWh
		Unmitigated			
Project[2] (Building)	46,881,446	46,881	24,493,429	24.49	24,493
Project[2] (Mobile)	1,122,969	1,123			
		Mitigated			
Project[2] (Building)	0	0	0	0.00	0
Project[2] (Mobile)	1,122,969	1,123			
		County/Utility			
Madera (2018)[3,4]		12,030,456		3,568	3,567,716
PG&E (2018)[5,7]		887,872,720		87,375	87,375,000
PG&E (2021/2022)[5,7]		823,210,780		102,149	102,149,000
PG&E (2035/2030)[5,7]		828,126,600		116,897	116,897,000

Operational Vehicle Fuel Consumption

EMFAC2017 Castellina; Dated: 43730

	Project		
	Unmitigated	**Mitigated**	
Gasoline	1,162,626	1,162,626	gallons
Diesel	1,107,701	1,107,701	gallons
Natural Gas	1,123	1,123	MMBTU

CalEEMod Output

	Natural Gas (KBTU)		Electricity (KWh)	
	Unmitigated	**Mitigated**	**Unmitigated**	**Mitigated**
Single Family Housing	40,476,100	0	14,314,100	0
Apartment	335,995	0	128,969	0
Shopping Center	2,992,590	0	2,771,190	0
General Office	2,352,940	0	2,125,820	0
Industrial	723,821	0	5,153,350	0

Natural Gas Background Information

Sales				Supply	
State (2018)	PG&E			PG&E	
	2018	**2021**	**2035**		**Year**
	2348	2177	2190	3116	MMCF/day
2,077,516	857,020	794,605	799,350	1,137,340	MMCF/year
2,077,516,000	857,020,000	794,605,000	799,350,000	1,137,340,000	MCF/year
1.036	1.036	1.036	1.036	1.036	MMBTU/1mCF
2,152,306,576	887,872,720	823,210,780	828,126,600	1,178,284,240	MMBTU/year

Source:

State: EIA, 2020. *Natural Gas Summary.* Available: https://www.eia.gov/dnav/ng/ng_sum_lsum_dcu_SCA_a.htm, Accessed March 2020.

PG&E: California Gas and Electric Utilities, 2018. *2018 California Gas Report* . Available: https://www.socalgas.com/regulatory/documents/cgr/2018_California_Gas_Report.pdf, Accessed: March 2020

Transportation Fuel Background Information

	Diesel	gasoline
State (2018)	3,659,000,000	13,475,000,000
County (2018)	35,000,000	115,000,000

Assumptions

8.78	Kg of CO_2 per gallon of Gasoline		
10.21	Kg of CO_2 per gallon of Diesel		
1040	MMBtu/MMCF	1040	MMBtu
1	MWh=	0.001	GWh
100,000	BTU/therm		
3,412	Btu/kWh[8]		
120,304,563	County (2018) Therms[3]		

Construction	diesel	Used for trucks (haul and vendor) and off-road equipment
	gasoline	worker vehicles
Operation	diesel	Majority of trucks and buses
	gasoline	remaining vehicle mix

LCFS & Pavley assumed for on-road vehicles after year 2011

Sources:

1 California Energy Commission, 2018. California Retail Fuel Outlet Annual Reporting (CEC-A15) Results. http://listserver.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html Accessed,March 2020.

Diesel:	1,602	Million Gallons State	35	Million Gallons County
Gasoline:	13,475	Million Gallons State	115	Million Gallons County

2 ESA, 2019 CalEEMod Output - Castellina - Buildout; Castellina - Project; Castellina Buildout - Mitigated; Castellina Project - Mitigated

3 http://www.ecdms.energy.ca.gov/gasbycounty.aspx 120.30 Million Therms

4 http://www.ecdms.energy.ca.gov/elecbycounty.aspx 3,567.72 GWh

5 PG&E 2018. Integrated Resource Plan. August 1. Available: https://www.pge.com/pge_global/common/pdfs/for-our-business-partners/energy-supply/integrated-resource-planning/2018-PGE-Integrated-Resource-Plan.pdf. Accessed: March 2020.

87,375,000 MWh

7 Calofirnia Gas and Electric Utilities, 2018. 2018 California Gas Report. Available: https://www.socalgas.com/regulatory/documents/cgr/2018_California_Gas_Report.pdf, Accessed: March 2020

8 https://www.eia.gov/energyexplained/units-and-calculators/energy-conversion-calculators.php#eleccalc

Winton

Unmitigated Fuel Conversion - Construction

	Total CO_2 MT/yr	Fuel Type	Factor $KGCO_2/gal$	Gallons
		Offroad		
Residential				
Demolition	47.93	diesel	10.21	4,695
Site Preparation	26.96	diesel	10.21	2,641
Grading	120.83	diesel	10.21	11,835
Building Construction	505.66	diesel	10.21	49,526
Paving	151.43	diesel	10.21	14,831
Architectural Coating	19.19	diesel	10.21	1,879
Shopping Center				
Demolition	34.24	diesel	10.21	3,353
Site Preparation	8.43	diesel	10.21	825
Grading	10.51	diesel	10.21	1,029
Building Construction	264.48	diesel	10.21	25,904
Paving	14.85	diesel	10.21	1,455
Architectural Coating	2.30	diesel	10.21	226
General Office				
Demolition	21.20	diesel	10.21	2,077
Site Preparation	3.26	diesel	10.21	319
Grading	5.48	diesel	10.21	536
Building Construction	0.00	diesel	10.21	0
Paving	7.81	diesel	10.21	765
Architectural Coating	1.28	diesel	10.21	125
Industrial				
Demolition	32.53	diesel	10.21	3,186
Site Preparation	15.17	diesel	10.21	1,485
Grading	24.96	diesel	10.21	2,444
Building Construction	249.33	diesel	10.21	24,421
Paving	20.19	diesel	10.21	1,977
Architectural Coating	2.56	diesel	10.21	251

Onroad

source: EMFAC2017 -Winton

	Hauling	Vendor	Worker
Modeling Results			
Residential			
Demolition	86	0	89
Site Preparation	0	0	61
Grading	0	0	186
Building Construction	0	11,425	13,924
Paving	0	0	475
Architectural Coating	0	0	950
Shopping Center			
Demolition	61	0	127
Site Preparation	0	0	38
Grading	0	0	68
Building Construction	0	3,763	3,737
Paving	0	0	152
Architectural Coating	0	0	61
General Office			
Demolition	61	0	110
Site Preparation	0	0	10
Grading	0	0	25
Building Construction	0	2,145	2,043
Paving	0	0	63
Architectural Coating	0	0	17
Industrial			
Demolition	58	0	120
Site Preparation	0	0	68
Grading	0	0	120
Building Construction	0	5,842	6,505
Paving	0	0	127
Architectural Coating	0	0	118

Energy Appendix

C. EMFAC2017

Winton

Total On-Road Fuel Consumption

Winton

Total On-Road Fuel Consumption

		gal/mile	gal/min
2020Hauling	Hauling	0.15268224	3.90233E-05
2020Vendor	Vendor	0.13356475	6.98774E-05
2020Worker	Worker	0.03908858	8.54086E-07
2021Hauling	Hauling	0.15006114	3.8724E-05
2021Vendor	Vendor	0.13136208	7.02315E-05
2021Worker	Worker	0.03810432	1.16472E-06
2035Hauling	Hauling	0.11046992	2.98529E-05
2035Vendor	Vendor	0.10131148	6.40404E-05
2035Worker	Worker	0.02742923	1.22517E-06

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)
Demolition - Res	2020				
Total Haul Trips	16				
Hauling	2	14	10	20	15
Vendor	0	14	10	7.3	15
Worker	15	14	10	10.8	0
Site Prep - Res	2020				
Total Haul Trips	0				
Hauling	0	8	10	20	15
Vendor	0	8	10	7.3	15
Worker	18	8	10	10.8	0
Grading - Res	2020				
Total Haul Trips	0				
Hauling	0	22	10	20	15
Vendor	0	22	10	7.3	15
Worker	20	22	10	10.8	0
Building Construction - Res	2020				
Total Haul Trips	0				
Hauling	0	217	10	20	15
Vendor	54	217	10	7.3	15
Worker	152	217	10	10.8	0
Paving - Res	2020				
Total Haul Trips	0				
Hauling	0	75	10	20	15
Vendor	0	75	10	7.3	15
Worker	15	75	10	10.8	0
AC - Res	2020				
Total Haul Trips	0				
Hauling	0	75	10	20	15
Vendor	0	75	10	7.3	15
Worker	30	75	10	10.8	0

Winton

Total On-Road Fuel Consumption

		gal/mile	gal/min
2020Hauling	Hauling	0.15268224	3.90233E-05
2020Vendor	Vendor	0.13356475	6.98774E-05
2020Worker	Worker	0.03908858	8.54086E-07
2021Hauling	Hauling	0.15006114	3.8724E-05
2021Vendor	Vendor	0.13136208	7.02315E-05
2021Worker	Worker	0.03810432	1.16472E-06
2035Hauling	Hauling	0.11046992	2.98529E-05
2035Vendor	Vendor	0.10131148	6.40404E-05
2035Worker	Worker	0.02742923	1.22517E-06

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)
<u>Demolition - SC</u>	2020				
Total Haul Trips	16				
Hauling	1	20	10	20	15
Vendor	0	20	10	7.3	15
Worker	15	20	10	10.8	0
<u>Site Prep - SC</u>	2020				
Total Haul Trips	0				
Hauling	0	5	10	20	15
Vendor	0	5	10	7.3	15
Worker	18	5	10	10.8	0
<u>Grading - SC</u>	2020				
Total Haul Trips	0				
Hauling	0	8	10	20	15
Vendor	0	8	10	7.3	15
Worker	20	8	10	10.8	0
<u>BC - SC</u>	2020				
Total Haul Trips	0				
Hauling	0	227	10	20	15
Vendor	17	227	10	7.3	15
Worker	39	227	10	10.8	0
<u>Paving - SC</u>	2020				
Total Haul Trips	0				
Hauling	0	18	10	20	15
Vendor	0	18	10	7.3	15
Worker	20	18	10	10.8	0
<u>AC - SC</u>	2020				
Total Haul Trips	0				
Hauling	0	18	10	20	15
Vendor	0	18	10	7.3	15
Worker	8	18	10	10.8	0

Winton

Total On-Road Fuel Consumption

		gal/mile	gal/min
2020Hauling	Hauling	0.15268224	3.90233E-05
2020Vendor	Vendor	0.13356475	6.98774E-05
2020Worker	Worker	0.03908858	8.54086E-07
2021Hauling	Hauling	0.15006114	3.8724E-05
2021Vendor	Vendor	0.13136208	7.02315E-05
2021Worker	Worker	0.03810432	1.16472E-06
2035Hauling	Hauling	0.11046992	2.98529E-05
2035Vendor	Vendor	0.10131148	6.40404E-05
2035Worker	Worker	0.02742923	1.22517E-06

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)
Demolition - GO	2020				
Total Haul Trips	2				
Hauling	1	20	10	20	15
Vendor	0	20	10	7.3	15
Worker	13	20	10	10.8	0
Site Prep - GO	2020				
Total Haul Trips	0				
Hauling	0	3	10	20	15
Vendor	0	3	10	7.3	15
Worker	8	3	10	10.8	0
Grading - GO	2020				
Total Haul Trips	0				
Hauling	0	6	10	20	15
Vendor	0	6	10	7.3	15
Worker	10	6	10	10.8	0
BC - GO	2020				
Total Haul Trips	0				
Hauling	0	220	10	20	15
Vendor	10	220	10	7.3	15
Worker	22	220	10	10.8	0
Paving - GO	2020				
Total Haul Trips	0				
Hauling	0	10	10	20	15
Vendor	0	10	10	7.3	15
Worker	15	10	10	10.8	0
AC - GO	2020				
Total Haul Trips	0				
Hauling	0	10	10	20	15
Vendor	0	10	10	7.3	15
Worker	4	10	10	10.8	0

Winton

Total On-Road Fuel Consumption

		gal/mile	gal/min
2020Hauling	Hauling	0.15268224	3.90233E-05
2020Vendor	Vendor	0.13356475	6.98774E-05
2020Worker	Worker	0.03908858	8.54086E-07
2021Hauling	Hauling	0.15006114	3.8724E-05
2021Vendor	Vendor	0.13136208	7.02315E-05
2021Worker	Worker	0.03810432	1.16472E-06
2035Hauling	Hauling	0.11046992	2.98529E-05
2035Vendor	Vendor	0.10131148	6.40404E-05
2035Worker	Worker	0.02742923	1.22517E-06

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)
Demolition - Ind	2020				
Total Haul Trips	2				
Hauling	1	19	10	20	15
Vendor	0	19	10	7.3	15
Worker	15	19	10	10.8	0
Site Prep - Ind	2020				
Total Haul Trips	0				
Hauling	0	9	10	20	15
Vendor	0	9	10	7.3	15
Worker	18	9	10	10.8	0
Grading - Ind	2020				
Total Haul Trips	0				
Hauling	0	19	10	20	15
Vendor	0	19	10	7.3	15
Worker	15	19	10	10.8	0
BC - Ind	2020				
Total Haul Trips	0				
Hauling	0	214	10	20	15
Vendor	28	214	10	7.3	15
Worker	72	214	10	10.8	0
Paving - Ind	2020				
Total Haul Trips	0				
Hauling	0	20	10	20	15
Vendor	0	20	10	7.3	15
Worker	15	20	10	10.8	0
AC - Ind	2020				
Total Haul Trips	0				
Hauling	0	20	10	20	15
Vendor	0	20	10	7.3	15
Worker	14	20	10	10.8	0

Winton

T **Total On-Road Fuel Consumption**

Construction Phase	Regional Emissions (gallons)						
	gal/mile	gal/min	gal/day	Total Gallons/yr			
Demolition - Res							
Total Haul Trips							
Hauling	0.15	3.90E-05	6	86			
Vendor	0.13	6.99E-05	0	0			
Worker	0.04	8.54E-07	6	89			
Site Prep - Res							
Total Haul Trips							
Hauling	0.15	3.90E-05	0	0			
Vendor	0.13	6.99E-05	0	0			
Worker	0.04	8.54E-07	8	61			
Grading - Res							
Total Haul Trips							
Hauling	0.15	3.90E-05	0	0			
Vendor	0.13	6.99E-05	0	0			
Worker	0.04	8.54E-07	8	186			
Building Construction - Res							
Total Haul Trips							
Hauling	0.15	3.90E-05	0	0			
Vendor	0.13	6.99E-05	53	11,425			
Worker	0.04	8.54E-07	64	13,924			
Paving - Res							
Total Haul Trips							
Hauling	0.15	3.90E-05	0	0			
Vendor	0.13	6.99E-05	0	0			
Worker	0.04	8.54E-07	6	475			
AC - Res							
Total Haul Trips							
Hauling	0.15	3.90E-05	0	0			
Vendor	0.13	6.99E-05	0	0			
Worker	0.04	8.54E-07	13	950			

Winton

T **Total On-Road Fuel Consumption**

Construction Phase	Regional Emissions (gallons)						
	gal/mile	gal/min	gal/day	Total Gallons/yr			
Demolition - SC							
Total Haul Trips							
Hauling	0.15	3.90E-05	3	61			
Vendor	0.13	6.99E-05	0	0			
Worker	0.04	8.54E-07	6	127			
Site Prep - SC							
Total Haul Trips							
Hauling	0.15	3.90E-05	0	0			
Vendor	0.13	6.99E-05	0	0			
Worker	0.04	8.54E-07	8	38			
Grading - SC							
Total Haul Trips							
Hauling	0.15	3.90E-05	0	0			
Vendor	0.13	6.99E-05	0	0			
Worker	0.04	8.54E-07	8	68			
BC - SC							
Total Haul Trips							
Hauling	0.15	3.90E-05	0	0			
Vendor	0.13	6.99E-05	17	3,763			
Worker	0.04	8.54E-07	16	3,737			
Paving - SC							
Total Haul Trips							
Hauling	0.15	3.90E-05	0	0			
Vendor	0.13	6.99E-05	0	0			
Worker	0.04	8.54E-07	8	152			
AC - SC							
Total Haul Trips							
Hauling	0.15	3.90E-05	0	0			
Vendor	0.13	6.99E-05	0	0			
Worker	0.04	8.54E-07	3	61			

Winton

T **Total On-Road Fuel Consumption**

Construction Phase	Regional Emissions (gallons)						
	gal/mile	gal/min	gal/day	Total Gallons/yr			
Demolition - GO							
Total Haul Trips							
Hauling	0.15	3.90E-05	3	61			
Vendor	0.13	6.99E-05	0	0			
Worker	0.04	8.54E-07	5	110			
Site Prep - GO							
Total Haul Trips							
Hauling	0.15	3.90E-05	0	0			
Vendor	0.13	6.99E-05	0	0			
Worker	0.04	8.54E-07	3	10			
Grading - GO							
Total Haul Trips							
Hauling	0.15	3.90E-05	0	0			
Vendor	0.13	6.99E-05	0	0			
Worker	0.04	8.54E-07	4	25			
BC - GO							
Total Haul Trips							
Hauling	0.15	3.90E-05	0	0			
Vendor	0.13	6.99E-05	10	2,145			
Worker	0.04	8.54E-07	9	2,043			
Paving - GO							
Total Haul Trips							
Hauling	0.15	3.90E-05	0	0			
Vendor	0.13	6.99E-05	0	0			
Worker	0.04	8.54E-07	6	63			
AC - GO							
Total Haul Trips							
Hauling	0.15	3.90E-05	0	0			
Vendor	0.13	6.99E-05	0	0			
Worker	0.04	8.54E-07	2	17			

Winton

T **Total On-Road Fuel Consumption**

Construction Phase	Regional Emissions (gallons)						
	gal/mile	gal/min	gal/day	Total Gallons/yr			
<u>Demolition - Ind</u>							
Total Haul Trips							
Hauling	0.15	3.90E-05	3	58			
Vendor	0.13	6.99E-05	0	0			
Worker	0.04	8.54E-07	6	120			
<u>Site Prep - Ind</u>							
Total Haul Trips							
Hauling	0.15	3.90E-05	0	0			
Vendor	0.13	6.99E-05	0	0			
Worker	0.04	8.54E-07	8	68			
<u>Grading - Ind</u>							
Total Haul Trips							
Hauling	0.15	3.90E-05	0	0			
Vendor	0.13	6.99E-05	0	0			
Worker	0.04	8.54E-07	6	120			
<u>BC - Ind</u>							
Total Haul Trips							
Hauling	0.15	3.90E-05	0	0			
Vendor	0.13	6.99E-05	27	5,842			
Worker	0.04	8.54E-07	30	6,505			
<u>Paving - Ind</u>							
Total Haul Trips							
Hauling	0.15	3.90E-05	0	0			
Vendor	0.13	6.99E-05	0	0			
Worker	0.04	8.54E-07	6	127			
<u>AC - Ind</u>							
Total Haul Trips							
Hauling	0.15	3.90E-05	0	0			
Vendor	0.13	6.99E-05	0	0			
Worker	0.04	8.54E-07	6	118			

Winton
Operational Vehicle Fuel Consumption

Winton
Operational Vehicle Fuel Consumption

	Existing	Op year 1	op year 2
Unmitigated CO_2e (MT/year)		21,648	
Mitigated CO_2e (MT/year)			

Summary

	Op year 1 Unmitigated	Op year 1 Mitigated	
Gasolilne	1,162,626	0	gallons
Diesel	1,107,701	0.00	gallons
Electric	0.00	0.00	GWh
Natural Gas	1,122.97	0.00	MBTU

Operational Year 1 2035

<u>Unmitigated Calculations</u>

	% Emissions	CO_2e (MT)	CO_2e (kg)	CO_2e (lbs)	kg CO2/gallon	Gallons	Mcf	MBTU	GWh
Gasoline	0.477455339	10335.743	10,335,743	NA	8.89	1,162,626	NA	NA	NA
Diesel	0.519884812	11254.23756	11,254,238	NA	10.16	1,107,701	NA	NA	NA
Electric	0	0	NA	0	NA	NA	NA	NA	0.00
Natural Gas	0.002659849	57.57923666	57,579	NA	NA	NA	1,083.95	1,122.97	NA

<u>Emissions Percentage</u>

	2020	2021	2035
Gasoline	0.506129566	0.501670757	0.477455339
Diesel	0.492725777	0.497175456	0.519884812
Electric	0	0	0
Natural Gas	0.001144657	0.001153787	0.002659849

<u>Conversion Factors:</u>

1000	kg/MT			
8.89	kg CO_2/gallon gasoline	https://www.eia.gov/environment/emissions/co2_vol_mass.php		Feb. 2016
10.16	kg CO_2/gallon diesel	https://www.eia.gov/environment/emissions/co2_vol_mass.php		Feb. 2016
53.12	kg CO_2/ thousand cubic feet	https://www.eia.gov/environment/emissions/co2_vol_mass.php		Feb. 2016
1036	btu/cubic foot			
610.932	CO_2 lbs/MWh	Project Specific Op Year 1	2035	
255.124	CO_2 lbs/MWh	Project Specific Op Year 2		
0.907185	MT/ton			
2000	lbs/ton			