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# HEXAGON TRANSPORTATION CONSULTANTS, INC.



# **1849 Fortune Drive and 2400 Ringwood Avenue**



# **Transportation Analysis**

Prepared for:

**David J. Powers and Associates** 



November 9, 2022







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# **Executive Summary**

This report presents the results of the transportation analysis conducted for the proposed Trade Zone Boulevard Technology Park located at 1849 Fortune Drive and 2400 Ringwood Avenue in San Jose, California. The project site is currently occupied by an existing 88,000-s.f. office building located at 2400 Ringwood Avenue and a vacant 55,000-s.f. building located at 1849 Fortune Drive. The proposed project would demolish the two existing buildings and construct a 522,194-s.f. data center and 136,573 s.f. of manufacturing space. Parking for each of the buildings will be provided by a five-level 339-space parking garage. The entire site will be secured with a gate including each of the project access points.

Vehicular access to the parking garage will be provided via a right-in-only driveway and a right-out-only driveway along Trade Zone Boulevard. The right-out only driveway along Trade Zone Boulevard also will provide ingress and egress from a PG&E substation and its access gates. Two additional driveways – one along Ringwood Avenue and the other along Fortune Drive – would serve as entrance and exit for trucks only.

# **Transportation Analysis Scope**

The transportation analysis of the project was evaluated following the standards and methodologies set forth in the City of San Jose's Transportation Analysis Policy (Council Policy 5-1), the City of San Jose *Transportation Analysis Handbook 2020*, the City of Milpitas guidelines, the Santa Clara Valley Transportation Authority (VTA) Congestion Management Program's *Transportation Impact Guidelines* (October 2014), and by the California Environmental Quality Act (CEQA). Per the requirements of the City of San Jose's Transportation Policy and *Transportation Analysis Handbook 2020*, the TA report for the project consists of a CEQA vehicle-miles-traveled (VMT) analysis and a supplemental Local Transportation Analysis (LTA).

#### **CEQA Transportation Analysis Scope**

The CEQA transportation analysis for the project consists of a project-level VMT impact analysis using the City's VMT tool and a cumulative impact analysis that demonstrates the project's consistency with the Envision San Jose 2040 General Plan.

#### Local Transportation Analysis Scope

The LTA includes the evaluation of weekday AM and PM peak hour operations at a limited number of intersections for the purpose of identifying operational issues (queuing, signal operations, and potential multi-modal issues) at intersections in the general vicinity of the project site. The LTA supplements the CEQA VMT analysis and provides analysis for use by the City of San Jose in identifying potential improvement of the transportation system with a focus on improving multi-modal travel. The LTA is



required per the City of San Jose Transportation Policy, however, the operational deficiencies identified as part of the LTA are not considered impacts per CEQA guidelines.

### **CEQA VMT Analysis**

#### **CEQA Transportation Analysis Exemption Criteria**

The City of San Jose Transportation Analysis Handbook identifies screening criteria that determine whether a CEQA transportation analysis would be required for development projects. The criteria are based on the type of project, characteristics, and/or location. If a project meets the City's screening criteria, the project is expected to result in less-than-significant VMT impacts and a detailed CEQA VMT analysis is not required.

The project site is located within the Berryessa/International Business Park (BIBP) planned growth area. However, the existing area VMT per employee of 15.08 is above the baseline VMT per employee threshold of 14.37. Therefore, a CEQA-level transportation analysis that evaluates the project's effects on VMT is required.

#### **Project Impacts and Mitigation Measures**

**Project Impact:** Since the VMT generated by the project (15.07 per employee) would exceed the impact threshold of 14.37 VMT per employee, the project would result in a significant transportation impact on VMT, and mitigation measures are required to reduce the VMT impact. Per the *Transportation Analysis Handbook*, projects located in areas where the existing VMT is above the established threshold are referred to as being in "high-VMT areas", and projects in high-VMT areas are required to include a set of VMT reduction measures that would reduce the project VMT to the greatest extent possible. Based on preliminary direction from City staff, the project will be required to implement the following multi-modal facility improvements to reduce the project's VMT impact to less than significant levels.

- <u>Provide Pedestrian Network Improvements for Active Transportation (Tier 2):</u> Implement
  pedestrian improvements both on-site and in the surrounding area. Improving the pedestrian
  connections encourages people to walk instead of drive and reduces VMT. The project will be
  required to remove the pork-chop islands or provide raised crosswalks at the southwest and
  southeast corners of the Ringwood Avenue/Trade Zone Boulevard intersection. These
  improvements will require signal modification and the coordination between the Cities of San Jose
  and Milpitas and VTA. and
- <u>Provide Traffic Calming Measures (Tier 2)</u>: Implement pedestrian/bicycle safety and traffic calming measures both on-site in the surrounding neighborhood. Providing traffic calming measures promotes walking and biking as an alternative to driving. The project will be required to construct a raised median island for the existing left-turn pockets along the westbound direction on Trade Zone Boulevard to improve pedestrian safety and access. These improvements will require coordination with the City of Milpitas and VTA.

The measures are consistent with the City's improvement planline at Trade Zone Boulevard and Ringwood Avenue. The implementation of Tier 2 measures described above would reduce the VMT generated by the project to 14.47 per employee, which is still more than the established threshold of 14.37 VMT per employee. The project's VMT could be reduced to 14.26 per employee with the implementation of the following Travel Demand Management (TDM) measure. It should be noted that the TDM measure may be incorporated within a TDM plan for the project which may include additional TDM measures.



• <u>Telecommuting and Alternative Work Schedules:</u> Encourage employees to telecommute from home when possible, or to shift work schedules such that travel occurs outside of peak congestion periods. This strategy reduces commute trips, thereby reducing VMT. At a minimum, the measure would require that 10% of employees work a 4/40 work week schedule (10-hour workdays for four days a week).

The applicant will need to work with the City to ensure the measures are feasible or identify other multimodal improvements and/or TDM measures deemed appropriate for the development plan and uses of the site. Therefore, the ultimate mitigation measures may differ from those identified below so long as the measures meet the required 4.7 percent reduction in VMT and are approved by City staff.

#### Cumulative (GP Consistency) Evaluation

Projects must demonstrate consistency with the *Envision San José 2040 General Plan* to address cumulative impacts. Consistency with the City's General Plan is based on the project's density, design, and conformance to the General Plan goals and policies. If a project is determined to be inconsistent with the General Plan, a cumulative impact analysis is required per the City's *Transportation Analysis Handbook*.

According to the Envision San Jose 2040 General Plan, the project site is designated for *Transit Employment Center* uses. This designation is applied to areas planned for intensive job growth because of their importance as employment districts to the City and a high degree of access to transit and other facilities and services. This designation permits development with retail and service commercial uses on the first two floors; with office, research and development, or industrial use on upper floors; as well as wholly office, research and development, or industrial projects.

Since the *Transit Employment Center* designation allows industrial uses, the proposed industrial project is consistent with the Envision San Jose 2040 General Plan and would not require a General Plan Amendment (GPA). The project would be considered part of the cumulative solution to meet the General Plan's long-range transportation goals and would result in a less-than-significant cumulative impact.

# Local Transportation Analysis

The intersection operations analysis completed as part of the LTA is intended to quantify the operations of intersections and to identify potential negative effects due to the addition of project traffic. However, a potential adverse effect on a study intersection operation is not considered a CEQA impact metric. The LTA included the analysis of AM and PM peak-hour traffic conditions for 8 existing signalized intersections and one existing unsignalized intersections within the Cities of San Jose and Milpitas.

#### Trip Generation

After applying the ITE trip rates, appropriate trip reductions, and existing site trip credits, it is estimated that the project would generate an additional 205 daily vehicle trips, with 90 trips (54 inbound and 36 outbound) occurring during the AM peak hour and 41 trips (21 inbound and 20 outbound) occurring during the PM peak hour.

#### **Future Intersection Operation Conditions**

The results of the level of service analysis show that the added net trips as a result of the proposed project would not have an adverse effect on intersection operations under background plus project conditions during both the AM and PM peak hours at any of the study intersections based on the applicable guidelines.



#### US-101/Oakland/Mabury Transportation Development

Any project that would add trips through the identified Policy Interchange Intersections is required to participate in the TDP program. The fee for the US 101/Oakland/Mabury TDP is based on the number of PM peak hour vehicular trips that a project would add to the interchange. Note that the signalized intersections of Oakland Road/US 101 (S), Oakland Road/US 101 (N), Oakland Road/Commercial Street, Mabury Road/US 101 (E), and Mabury Road/US 101 (W) make up the "Policy Interchange Intersections". However, the proposed project is not projected to add any trips to the Policy Interchange Intersections during the PM peak hour and thus will not be required to pay the US 101/Oakland/Mabury TDP TIF.

#### **Recommended Site Access and On-Site Circulation Improvements**

The following improvements are recommended to improve access to the project site and on-site circulation:

- Ingress and egress from the PG&E substation gates will be provided via the right-turn only exit driveway along Trade Zone Boulevard. Signage noting ingress for substation vehicles only (no vehicular access) should be placed at the right-turn out driveway. The infrequent use of the substation access points will have minimal effect on driveway operations.
- The new median island along Trade Zone Boulevard should be constructed to extend past the project's exit driveway to prohibit left-turns from the project driveway.
- The project driveways along Fortune Drive and Trade Zone Boulevard/Ringwood Avenue should be free and clear of obstructions ensuring a minimum clear sight distance of 250 and 305 feet along Fortune Drive and Trade Zone Boulevard/Ringwood Avenue, respectively. The red curbs at the proposed driveway along Fortune Drive must be maintained or re-implemented.
- The design of the site must include adequate corner radii along all internal roadways/drive aisles, as well as driveway width, drive aisle width, parking dimensions, and signage that satisfies the City of San Jose design standards.
- The drive aisles with 90-degree parking stalls within the parking garage would need to be at least 20 feet wide for one-way operations and 26 feet wide for two-way operations.
- All-way stop controls would need to be implemented at the location on level 1 of the parking garage with conflicting traffic between vehicles entering and exiting the upper levels of the parking garage.
- Typical engineering standards require garage ramps to have no greater than a 20 percent grade, and slopes over 10% require transition slopes so that vehicles do not "bottom out".
- All curb returns along the on-site roadways should be a minimum of 30 feet to accommodate service and emergency (such as a garbage truck or fire truck) vehicle circulation.
- The gate at Fortune Drive will need to be relocated approximately 150 feet from the face of the curb to allow trucks to turn into the site.

#### Parking Supply

#### Vehicular Parking

The project is required to provide a total of 497 parking spaces based on the City's parking requirement. The project is proposing to provide a total of 339 parking spaces on-site, which would be 158 spaces less than, or a reduction of 32 percent, the City's requirement of 497 parking spaces.

In accordance with Sections 20.70.330 and 20.90.220 of the San Jose Code of Ordinances, which allows up to a 50% parking reduction, the 32 percent reduction could be allowed with the implementation and maintenance of a TDM plan. A separate TDM plan for the proposed project is



included in Appendix H. The TDM plan must be approved by the City of San Jose Planning Department to support a reduction in the required off-street parking.

#### **Bicycle Parking**

Based on the City's bicycle parking requirements and the total gross floor areas as calculated above in the vehicle parking section for each use, the project is required to provide 5, 6, and 23 bicycle parking spaces for the proposed data center, office, and manufacturing space, respectively, for a total of 34 bicycle parking spaces. Of the required bicycle parking, City standards require that 80 percent be short-term bicycle spaces and 20 percent be secured long-term bicycle spaces. This equates to 27 short-term bicycle parking spaces and 7 long-term bicycle parking spaces.

The project proposes a total of 38 bicycle parking spaces, consisting of 19 long-term spaces within the parking garage and 19 short-term spaces at the building entrance along Ringwood Avenue. Therefore, the proposed bicycle parking spaces will exceed the City's bicycle parking requirements and encourage the use of non-auto modes of travel and minimize the demand for on-site parking described above. However, 8 of the 19 long-term bicycle parking spaces will need to be converted to short-term bicycle parking spaces to meet the City's requirements of 27 short-term bicycle parking spaces.

#### Pedestrian, Bicycle, and Transit Facilities

All new development projects in San Jose should encourage multi-modal travel, consistent with the goals of the City's General Plan. It is the goal of the General Plan that all development projects accommodate and encourage the use of non-automobile transportation modes to achieve San Jose's mobility goals and reduce vehicle trip generation and vehicle miles traveled. In addition, the adopted City Bike Master Plan establishes goals, policies, and actions to make bicycling a daily part of life in San Jose. The Master Plan includes designated bike lanes along all City streets, as well as on designated bike corridors. In order to further the goals of the City, pedestrian and bicycle facilities should be encouraged with new development projects.

#### Pedestrian and Bicycle Facilities

The site plan shows pedestrian walkways (ADA paths of travel) connecting each of the building's main entrances with the existing sidewalks along the project frontages on Trade Zone Boulevard and Ringwood Avenue and destinations outside of the project site, including the bus stops on Trade Zone Boulevard.

The bikeways within the vicinity of the project site would remain unchanged under project conditions. Currently, Brokaw Road has bike lanes that would provide connections to other bicycle facilities in the project vicinity. The San Jose Better Bike Plan 2025 and Envision 2040 General Plan, as described below, identify planned improvements to the bicycle network within the City and provide policies and goals that are intended to promote and encourage the use of multi-modal travel options and reduce the identified project impacts to the roadway system.

#### Pedestrian and Bike Improvements

The planned improvements discussed below are intended to provide for a balanced transportation system as outlined in the Envision 2040 General Plan goals and policies. The San Jose Better Bike Plan 2025 indicates that a variety of bicycle facilities are planned in the study area, some of which would benefit the project and adhere to the goals of the Envision 2040 General Plan. Of the planned facilities, the following are relevant to the project.

#### Class III bike routes are planned for:

• Lundy Avenue/Trimble Road, north of Trade Zone Boulevard



#### Class IV protected bike lanes are planned for:

- Trade Zone Boulevard, along its entire length
- Ringwood Avenue, between Trade Zone Boulevard and Murphy Avenue
- Lundy Avenue, along its entire length
- Montague Expressway, west of Trade Zone Boulevard

The project would not impede the implementation of the planned bicycle facilities. However, the full implementation of the above-listed improvements is beyond the means of the proposed project given that they may require right-of-way from adjacent properties and benefit multiple properties. The project will however be required to provide a monetary contribution for an in-lieu fee of \$121 per linear foot to construct the Class IV 7-foot protected bike lanes along the project frontages on Trade Zone Boulevard and Ringwood Avenue per the City of San Jose Better Bike Plan 2025 and Trade Zone Boulevard and Ringwood Avenue improvement planline.

Additionally, the project would be required to implement the following pedestrian/bike improvements to mitigate its VMT impact:

- The project will be required to complete signal modifications at the Ringwood Avenue/Trade Zone Boulevard intersection that include striped bike lanes adjacent to all crosswalks and the installation of corner islands.
- The project will be required to remove the pork-chop islands or provide raised crosswalks at the southwest and southeast corners of the Ringwood Avenue/Trade Zone Boulevard intersection. These improvements will require signal modification and the coordination between the Cities of San Jose and Milpitas and VTA.

The Trade Zone Boulevard Planline identifies the improvement of Trade Zone Boulevard between Montague Expressway and Capitol Avenue to a complete street. Complete streets are roadways designed to safely accommodate many different users, including people who bike, people who walk, transit riders, motorists, and emergency vehicles. The planned streetscape design for Trade Zone Boulevard includes features of Complete Streets as defined in San José's General Plan and Complete Streets Design Guidelines. The Trade Zone Boulevard Planline identifies the following complete street improvements along Trade Zone Boulevard:

- Protected Class IV bike lanes along both sides of Trade Zone Boulevard. The bike lanes will be physically separated from vehicle travel lanes.
- A Complete Streets protected intersection design for the Trade Zone Boulevard/Ringwood Avenue intersection
- Construction of a raised median with limited breaks.

#### **Transit Facilities**

The project site is served directly by VTA Frequent Bus Lines 60 and 77 and the ACE Violet Shuttle, which operates along Trade Zone Boulevard. A bus stop for these bus routes is located along the project frontage on Trade Zone Boulevard. With the convenient location of bus stops, it can be assumed that some employees of the proposed project would utilize the existing transit services. Applying an estimated three percent transit mode share, which is a conservative estimate that could be expected for the project, equates to approximately at most three new transit riders during either of the peak hours. VTA operations reports indicate that the bus routes above as well as several other bus routes in the area currently serve less than ideal ridership. Therefore, the new riders due to the proposed project could be accommodated by the current available capacity of the bus service in the study area and improvement of the existing transit service would not be necessary with the project



#### **Transit Facility Improvements**

The bus stop located along the project frontage includes minimal amenities with only a sign. VTA's Better Bus Stops Program is an annual program that was implemented in 2020 to improve bus stop locations throughout its network. Improvements include the implementation of shelters, information signs, metal benches, metal trash cans, and solar lighting. The improved bus stops also aim to upgrade the boarding area with wider sidewalks to accommodate the amenities and concrete bus pads. The Better Bus Stop Program has established a list of potential locations for improvement based on ridership.

The bus stop along the project frontage is included in the improvement list with the implementation of solar lighting. The project would not interfere with the planned bus stop improvements. However, it is recommended that the project work with VTA to allow for adequate space along its frontages to accommodate the future improvement of the bus stop including wider sidewalks and a bus duck-out.

**Recommendation:** A VTA standard 8' x 40' boarding area and a VTA standard 7' x 25' shelter pad and a 13' full back ad shelter should be installed at the existing bus stop along the project frontage. The project should include in its design, a connection between the bus stop and the pedestrian pathway or the emergency vehicle access roadway into the plaza. The final design should be coordinated between the project and VTA.



# 1. Introduction

This report presents the results of the transportation analysis conducted for the proposed Trade Zone Boulevard Technology Park located at 1849 Fortune Drive and 2400 Ringwood Avenue in San Jose, California. The project site is currently occupied by an existing 88,000-s.f. office building located at 2400 Ringwood Avenue and a vacant 55,000-s.f. building located at 1849 Fortune Drive. The proposed project would demolish the two existing buildings and construct a 522,194-s.f. data center and 136,573 s.f. of manufacturing space. Parking for each of the buildings will be provided by a five-level 339-space parking garage. The entire site will be secured with a gate including each of the project access points.

Vehicular access to the parking garage will be provided via a right-in-only driveway and a right-out-only driveway along Trade Zone Boulevard. The right-out only driveway along Trade Zone Boulevard also will provide ingress and egress from a PG&E substation and its access gates. Two additional driveways – one along Ringwood Avenue and the other along Fortune Drive – would serve as entrance and exit for trucks only. The project site location and site plan are shown in Figures 1 and 2, respectively.

This study was conducted for the purpose of identifying the potential transportation impacts related to the project.

# Scope of Work

The transportation analysis of the project was evaluated following the standards and methodologies set forth in the City of San Jose's Transportation Analysis Policy (Council Policy 5-1), the City of San Jose *Transportation Analysis Handbook 2020*, the City of Milpitas guidelines, the Santa Clara Valley Transportation Authority (VTA) Congestion Management Program's *Transportation Impact Guidelines* (October 2014), and by the California Environmental Quality Act (CEQA). Per the requirements of the City of San Jose's Transportation Policy and *Transportation Analysis Handbook 2020*, the TA report for the project consists of a CEQA vehicle-miles-traveled (VMT) analysis and a supplemental Local Transportation Analysis (LTA).

#### **Transportation Policies**

#### Council Policy 5-1

Historically, transportation analysis has utilized delay and congestion on the roadway system as the primary metric for the identification of traffic impacts and potential roadway improvements to relieve traffic congestion that may result due to proposed/planned growth. However, the State of California has recognized the limitations of measuring and mitigating only vehicle delay at intersections and in 2013 passed Senate Bill (SB) 743, which requires jurisdictions to stop using congestion and delay metrics, such as Level of Service (LOS), as the measurement for CEQA transportation analysis. With the



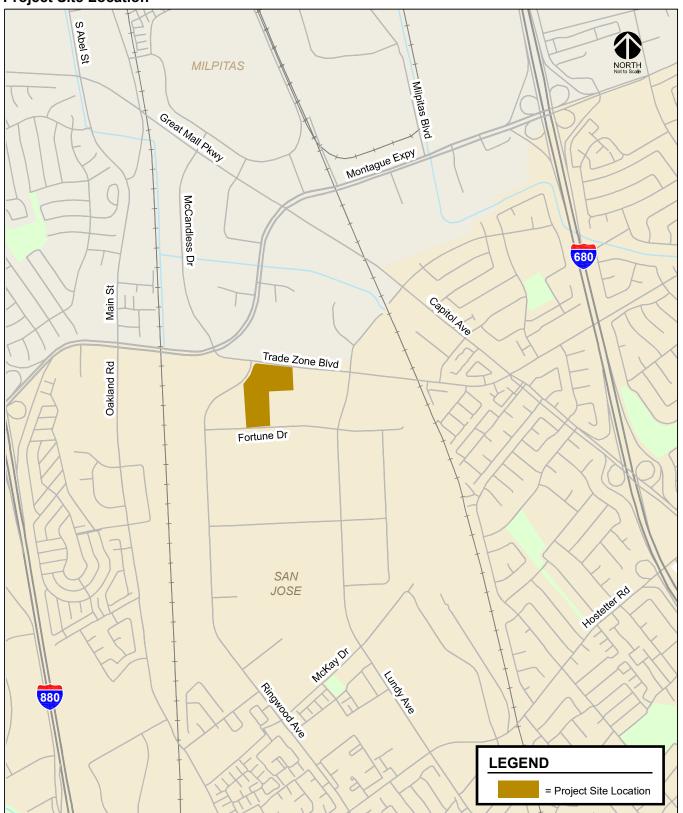
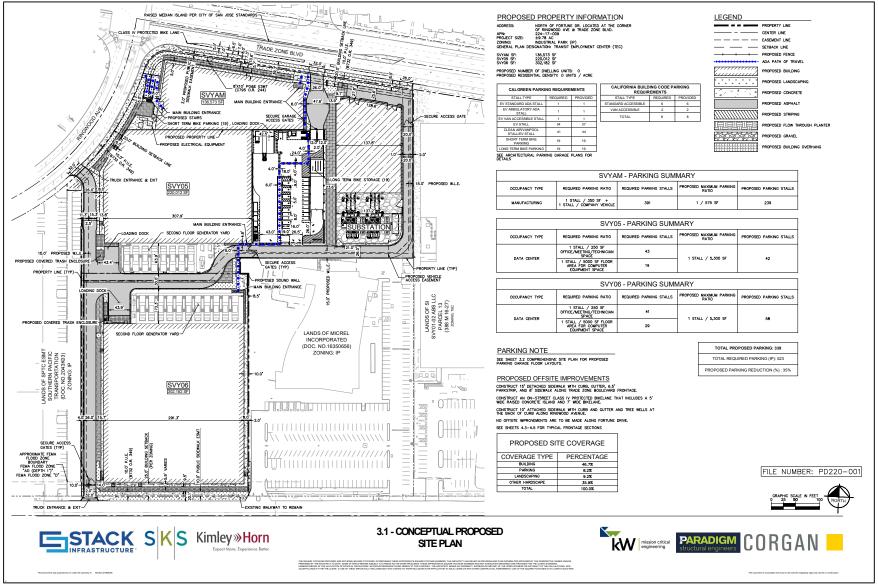


Figure 1 Project Site Location

#### November 9, 2022

#### Figure 2 Project Site Plan





adoption of SB 743 legislation, public agencies are now required to base the determination of transportation impacts on Vehicle Miles Traveled (VMT) rather than level of service.

In adherence to SB 743, the City of San Jose has adopted a Transportation Analysis Policy, Council Policy 5-1. The policy replaces its predecessor (Policy 5-3) and establishes the thresholds for transportation impacts under the CEQA based on vehicle miles traveled (VMT) instead of levels of service (LOS). The intent of this change is to shift the focus of transportation analysis under CEQA from vehicle delay and roadway auto capacity to a reduction in vehicle emissions, and the creation of robust multimodal networks that support integrated land uses. The transportation policy aligns with the currently adopted General Plan which seeks to focus on new development growth within Planned Growth Areas, bringing together office, residential, and supporting service land uses to internalize trips and reduce VMT. All new development projects are required to analyze transportation impacts using the VMT metric and conform to Council Policy 5-1.

#### **General Plan Goals & Policies**

The Circulation Element of the *Envision San José 2040 General Plan* includes a set of balanced, longrange, multi-modal transportation goals and policies that provide for a transportation network that is safe, efficient, and sustainable (minimizes environmental, financial, and neighborhood impacts). These transportation goals and policies are intended to improve multi-modal accessibility to all land uses and create a city where people are less reliant on driving to meet their daily needs. The Envision San Jose 2040 General Plan contains the following policies to encourage the use of non-automobile transportation modes to minimize vehicle trip generation and reduce VMT:

- Consider impacts on overall mobility and all travel modes when evaluating transportation impacts of new developments or infrastructure projects (TR-1.2);
- Through the entitlement process for new development, projects shall be required to fund or construct needed transportation improvements for all transportation modes, giving first consideration to the improvement of biking, walking, and transit facilities and services that encourage reduced vehicle travel demand (TR-1.4);
- Require new development where feasible to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements (TR-2.8);
- As part of the development review process, require that new development along existing and planned transit facilities consist of land use and development types and intensities that contribute towards transit ridership. In addition, require that new development is designed to accommodate and provide direct access to transit facilities (TR-3.3);
- Discourage, as part of the entitlement process, the provision of parking spaces significantly above the number of spaces required by code for a given use (TR-8.4);
- Allow reduced parking requirements for mixed-use developments and for developments providing shared parking or a comprehensive transportation demand management (TDM) program, or developments located near major transit hubs or within Villages and Corridors and other growth areas (TR-8.6);
- Encourage private property owners to share their underutilized parking supplies with the general public and/or other adjacent private developments (TR-8.7);
- Within new development, create and maintain a pedestrian-friendly environment by connecting the internal components with safe, convenient, accessible, and pleasant pedestrian facilities and by requiring pedestrian connections between building entrances, other site features, and adjacent public streets (CD-3.3).;
- Encourage all developers to install and maintain trails when new development occurs adjacent to a designated trail location. Use the City's Parkland Dedication Ordinance and Park Impact



Ordinance to have residential developers build trails when new residential development occurs adjacent to a designated trail location, consistent with other parkland priorities. Encourage developers or property owners to enter into formal agreements with the City to maintain trails adjacent to their properties (PR-8.5).

#### **CEQA Transportation Analysis Scope**

The CEQA transportation analysis for the project consists of a project-level VMT impact analysis using the City's VMT tool and a cumulative impact analysis that demonstrates the project's consistency with the Envision San Jose 2040 General Plan.

To determine whether a project would result in CEQA transportation impacts related to VMT, the City has developed the San Jose VMT Evaluation Tool to streamline the analysis for development projects. For non-residential or non-office projects, very large projects, or projects that can potentially shift travel patterns, the City's Travel Demand Forecasting (TDF) model can be used to determine project VMT. The City's VMT tool was used to estimate VMT for employment uses proposed by the project.

The City of San Jose's Transportation Analysis Policy establishes procedures for determining project impacts on VMT based on project description, characteristics, and/or location. The City's VMT methodology also includes screening criteria that are used to identify types, characteristics, and/or locations of projects that would not exceed the CEQA thresholds of significance. If a project or a component of a mixed-use project meets the screening criteria, it is then presumed that the project or the component would result in a less-than-significant VMT impact and a VMT analysis is not required. However, the proposed project will not meet all applicable VMT screening criteria as described in further detail in Chapter 3. Therefore, a CEQA-level transportation analysis that evaluates the project's effects on VMT is required and is presented in Chapter 3.

#### Local Transportation Analysis Scope

A local transportation analysis (LTA) supplements the CEQA VMT analysis and identifies transportation and traffic operational issues that may arise due to a development project. The LTA includes an evaluation of the effects of the project on transportation, access, circulation, and related safety elements in the proximate area of the project.

The LTA includes the evaluation of weekday AM and PM peak hour operations at a limited number of intersections for the purpose of identifying operational issues (queuing, signal operations, and potential multi-modal issues) at intersections in the general vicinity of the project site. However, the determination of project impacts per CEQA requirements is based solely on the VMT analysis.

Traffic conditions at the study intersections were analyzed for both the weekday AM and PM peak hours of adjacent street traffic. The AM peak hour typically occurs between 7:00 AM and 9:00 AM and the PM peak hour typically occurs between 4:00 PM and 6:00 PM on a regular weekday. These are the peak commute hours during which most weekday traffic congestion occurs on the roadways in the study area.

Intersection operations conditions were evaluated for the following scenarios:

• **Existing Conditions.** Existing AM and PM peak hour traffic volumes were obtained from the City of San Jose, the 2018 CMP Annual Monitoring Report, and available manual turning-movement counts. New turning movement counts were not collected due to the continued effects of the COVID-19 pandemic on normal traffic conditions. Therefore, as recommended by the City of San Jose, a 1% compounded annual growth factor was applied to counts that were collected prior to the pandemic and are older than two years to estimate traffic conditions in 2022.



- **Background Conditions.** Background traffic volumes were estimated by adding to existing peak hour volumes the projected volumes from approved but not yet completed developments. The added traffic from approved but not yet completed developments was provided by the City of San Jose in the form of the Approved Trips Inventory (ATI). The list of approved but not yet completed developments in Milpitas was obtained from the City of Milpitas' website. Background conditions represent the baseline conditions to which project conditions are compared for the purpose of determining potential adverse operational effects of the project.
- **Background Plus Project Conditions.** Background plus project conditions reflect projected traffic volumes on the planned roadway network with completion of the project and approved developments. Background plus project traffic volumes were estimated by adding to background traffic volumes the net additional traffic generated by the project.

The LTA also includes a vehicle queuing analysis, an evaluation of potential project impacts on bicycle, pedestrian, and transit facilities, and a review of site access, on-site circulation, and parking demand.

# **Report Organization**

The remainder of this report is divided into four chapters. Chapter 2 describes the existing transportation system including the existing roadway network, transit service, bicycle and pedestrian facilities. Chapter 3 describes the CEQA transportation analysis, including VMT analysis methodology, baseline and potential project VMT impacts, and potential cumulative transportation impacts. Chapter 4 describes the LTA including the method by which project traffic is estimated, intersection operations analysis methodology, any adverse intersection traffic effects caused by the project, intersection vehicle queuing analysis, site access and on-site circulation review, effects on bicycle, pedestrian, and transit facilities, and parking. Chapter 5 presents the conclusions of the transportation analysis.

# 2. Existing Transportation Conditions

This chapter describes the existing conditions of the transportation system within the study area of the project. It describes transportation facilities in the vicinity of the project site, including the roadway network, transit service, and pedestrian and bicycle facilities. The analysis of existing intersection operations is included as part of the local transportation analysis (see Chapter 4).

# **Existing Roadway Network**

Regional access to the project site is provided via I-680 and I-880. Direct access to the site is provided via Trade Zone Boulevard, Ringwood Avenue, and Fortune Drive. Other roadways in the project vicinity include Montague Expressway and Capitol Avenue. These facilities are described below.

*I-680* is an eight-lane freeway (four mixed-flow lanes in each direction) in the vicinity of the site. I-680 extends northward through Alamo and southward to transition into I-280 in San Jose. Access to and from the site is provided via full interchanges at Capitol Avenue and Montague Expressway.

*I-880* is an eight-lane freeway (three mixed-flow lanes and one high occupancy vehicle (HOV) lane in each direction) in the vicinity of the site. I-880 extends northward through Oakland and southward to transition into SR 17 in San Jose. Access to and from the site is provided via a full interchange at Montague Expressway.

**Fortune Drive** is a two-lane local street that runs in an east-west direction in the vicinity of the site. There are left-turn pockets provided at the Lundy Avenue/Fortune Drive intersection and a center turn lane provided between intersections in the study area. Fortune Drive extends westward to Ringwood Avenue and eastward to a cul-de-sac terminus. Fortune Drive includes sidewalks on the north side of the street between Lundy Avenue and the project site's western boundary and the south side for approximately 700 feet west of Lundy Avenue. Fortune Drive has a posted speed limit of 35 mph. There are no striped bike lanes or marked bike routes on the street. On-street parking is permitted on both sides of the street from 6 AM to 10 PM (no overnight parking) in the project vicinity. Vehicular access to the project site would be provided via its intersections with Ringwood Avenue and Lundy Avenue, and truck access would be provided via a driveway along Fortune Drive.

*Ringwood Avenue* is a two-lane local street that runs in the north-south direction in the vicinity of the site. There are left-turn pockets provided at intersections and a center turn lane provided between intersections in the study area. Ringwood Avenue extends northward to Trade Zone Boulevard and southward to Sajak Avenue. Ringwood Avenue includes a sidewalk on the east side of the street along the project's frontage. Ringwood Avenue has a posted speed limit of 40 mph. Bike lanes exist along Ringwood Avenue from Trade Zone Boulevard to Murphy Avenue. On-street parking is prohibited on both sides of the street at all times. Vehicular access to the project site would be provided via its



intersection with Trade Zone Boulevard, and truck access would be provided via a driveway along Ringwood Avenue.

*Lundy Avenue* is designated as a City Connector Street in the 2040 General Plan and is a four-lane divided street that runs in the north-south direction in the vicinity of the site. Lundy Avenue extends northward to Tarob Court and southward to Commodore Drive, where it transitions into King Road. Lundy Avenue provides sidewalks on both sides of the street between Fortune Drive and approximately 450 feet to the north. The sidewalk ends along the west side of the street but continues along the east side of the street to Trade Zone Boulevard. Lundy Avenue has a posted speed limit of 40 mph. Bike lanes exist along Lundy Avenue from Trade Zone Boulevard to Berryessa Road. On-street parking is prohibited on both sides of the street at all times. Access to the project site is provided via its intersections with Trade Zone Boulevard and Fortune Drive.

**Trade Zone Boulevard** is designated as a City Connector Street in the 2040 General Plan and is a four-lane east-west street extending from Montague Expressway in the west and to Capitol Avenue in the east, where it transitions into Cropley Avenue. There are left-turn pockets provided at intersections and a center turn lane provided between intersections in the study area between Ringwood Avenue and Lundy Avenue. It has a raised, landscaped median with left-turn pockets provided at intersections from Lundy Avenue to Capitol Avenue and from Montague Expressway to Ringwood Avenue. Trade Zone Boulevard has sidewalks on both sides of the street along the project frontage between Ringwood Avenue and Lundy Avenue and has a posted speed limit of 40 mph. On-street parking is prohibited on both sides of the street. Direct access to and from the project site would be provided via a right-in-only western driveway, a right-out-only central driveway, and a right-out-only eastern driveway along Trade Zone Boulevard.

**Montague Expressway** is designated as an Expressway in the 2040 General Plan and is an east-west divided arterial that extends from I-680 in the east to San Tomas Expressway in the west. Near the project site, Montague Expressway has six lanes with left-turn pockets provided at intersections. It has a posted speed limit of 45 mph near the project vicinity. On-street parking is prohibited on both sides of the street in the project vicinity. Montague Expressway provides access to the project site via its intersection with Trade Zone Boulevard.

*Capitol Avenue* is designated as a Grand Boulevard in the 2040 General Plan and is a north-south divided arterial that extends from Great Mall Parkway in the north to Capitol Expressway in the south. Near the project site, Capitol Avenue has two northbound lanes and three southbound lanes with left-turn pockets provided at intersections. It has at-grade train tracks in the middle of the street for the VTA light rail transit service. Capitol Avenue has a posted speed limit of 35 mph near the project vicinity. Sidewalks are provided on both sides of the street. On-street parking is prohibited on both sides of the street in the project vicinity. Capitol Avenue provides access to the project site via its intersection with Trade Zone Boulevard.

## **Existing Pedestrian, Bicycle, and Transit Facilities**

San Jose desires to provide a safe, efficient, economically, and environmentally sensitive transportation system that balances the needs of bicyclists, pedestrians, and public transit riders with those of cars and trucks. The existing bicycle, pedestrian, and transit facilities in the study area are described below.

#### **Existing Pedestrian Facilities**

The overall network of sidewalks and crosswalks in the study area provides limited connectivity. There are gaps in the pedestrian routes between the project site and the nearest bus stops and LRT stations on Lundy Avenue, Montague Expressway, and Capitol Avenue. Sidewalks are missing along the following street sections between the project site and the nearest bus stops and LRT stations (see Figure 3):





#### Figure 3 Roadway Sections Without Sidewalks



- Both sides of Fortune Drive, between Ringwood Avenue and approximately 650 feet east of Ringwood Avenue on the north side and between Ringwood Avenue and the eastern project's boundary on the south side.
- Westside of Lundy Avenue, between Trade Zone Boulevard and approximately 300 feet south of Trade Zone Boulevard.
- Both sides of Trade Zone Boulevard, between Lundy Avenue to approximately 900 feet east of Lundy Avenue
- Both sides of Ringwood Avenue, between Fortune Drive and Trade Zone Boulevard, except for approximately 300 feet on the east side of the street south of Trade Zone Boulevard

Crosswalks with pedestrian signal heads and push buttons are located at all signalized intersections in the study area. However, there are no crosswalks on the west leg of the Ringwood Avenue/Trade Zone Boulevard intersection and the west and south legs of the Trade Zone Boulevard/Montague Expressway intersection.

#### **Existing Bicycle Facilities**

The existing bicycle facilities in the project vicinity include Class II bike lanes and Class III bike routes (see Figure 4). Bike lanes are lanes on roadways designated for use by bicycles with special lane markings, pavement legends, and signage. Bike routes are existing streets that accommodate bicycles but are not separate from the existing travel lanes. Bike routes are typically designated only with signage or with painted shared lane markings (Sharrows) on a road that indicate to motorists that bicyclists may use the full travel lane.

Class II striped bike lanes are present in the following street segments in the project vicinity:

- Trade Zone Boulevard between Montague Expressway and Capitol Avenue, with sharrows on westbound Trade Zone Boulevard between Montague Expressway and Ringwood Avenue
- Ringwood Avenue between Trade Zone Boulevard and Murphy Avenue
- Lundy Avenue between Trade Zone Boulevard and Berryessa Road
- McCandless Drive along its entire length
- Capitol Avenue/Great Mall Parkway along its entire length in the project vicinity

There are no designated striped bike lanes or shared bike routes on Fortune Drive. However, because Fortune Drive carries relatively low traffic volumes, it is conducive to bicycle travel and connects bicyclists to the existing bicycle facilities.

#### Existing Transit Services

Existing transit services in the project vicinity are provided by VTA, ACE, and BART. In the project proximity, the VTA operates one light rail line (Orange Line), two local bus routes (Routes 20 and 44), and two frequent bus routes (Routes 60 and 77) and ACE operates the Violet Shuttle. Other bus routes serving the Milpitas Transit Center located approximately 0.5 miles north of the project site include Local Routes 47, 70, and 71, Frequent Route 66, and Limited-Stop Route 104. BART operates the Orange and Green Lines with services to the Milpitas Transit Center. The existing transit services in the project vicinity are shown in Figure 5. The headways during the commute periods for these transit services are summarized in Table 1.

#### VTA Light Rail Service

The VTA operates the light rail transit (LRT) line system that extends from south San Jose through downtown to the northern areas of San Jose, Santa Clara, Mountain View, Milpitas, and Sunnyvale. Service operates nearly 24 hours, every 20 minutes during much of the day.



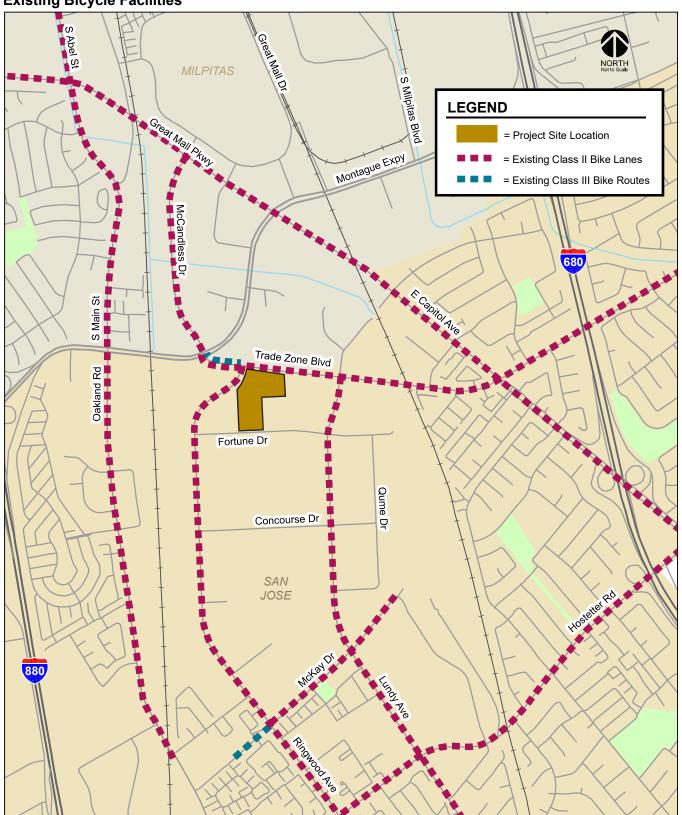
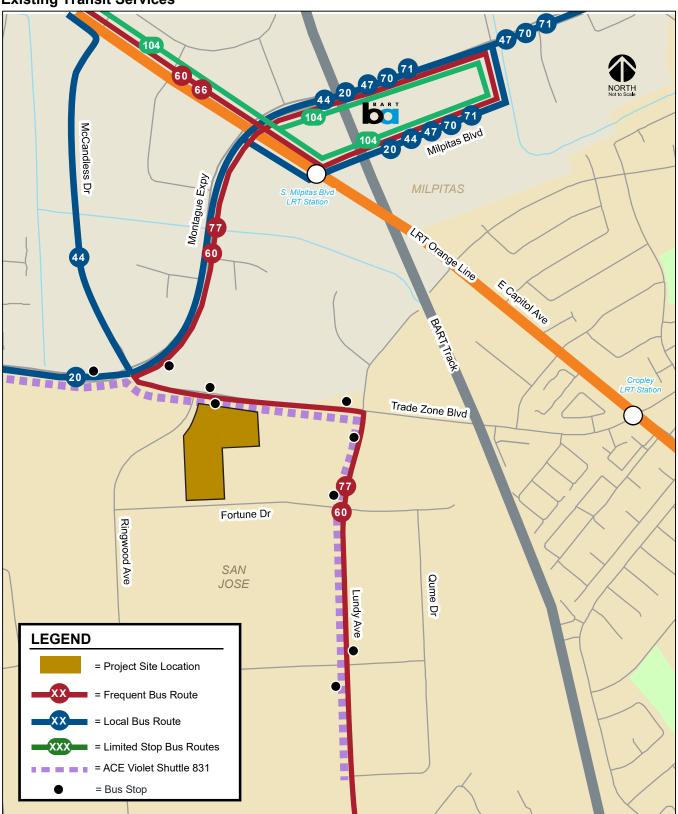


Figure 4 Existing Bicycle Facilities



#### Figure 5 Existing Transit Services

Table 1	
Transit	Services

Route	Route Description	Closest Stop to Project Site	Weekday Hours of Operation <sup>1</sup>	Headway <sup>1</sup>
Local Bus Route 20	Milpitas BART - Sunnyvale Transit Center	Trade Zone Blvd/Montague Exp Intersection	6:30 AM - 8:00 PM	30 min
Local Bus Route 44	Milpitas BART - McCarthy Ranch via Tasman & Alder	Trade Zone Blvd/Montague Exp Intersection	6:00 AM - 8:00 PM	30 min
Local Bus Route 47	Milpitas BART - McCarthy Ranch via Park Victoria	Milpitas Transit Center	7:00 AM - 8:30 PM	30 min
Local Bus Route 70	Milpitas BART - Eastridge via Jackson	Milpitas Transit Center	5:00 AM - 12:00 AM	30 min
Local Bus Route 71	Milpitas BART - Capitol Station	Milpitas Transit Center	5:30 AM - 10:30 PM	30 min
Frequent Bus Route 60	Milpitas BART - Winchester Station via SJC Airport	Along project's frontage on Trade Zone Blvd	5:30 AM - 12:30 AM	15 min
Frequent Bus Route 66	North Milpitas - Kaiser San Jose	Milpitas Transit Center	5:00 AM - 12:00 AM	15 min
Frequent Bus Route 77	Milpitas BART - Eastridge, via King	Along project's frontage on Trade Zone Blvd	5:30 AM - 10:00 PM	15 min
Limited-Stop Bus Route 104	Milpitas BART - Stanford Research Park	Milpitas Transit Center	6:00 AM - 8:00 AM (westbound), 4:00 PM - 6:00 PM (eastbound)	45 min AM, 30 min PM
ACE Shuttle 831	Great America ACE Amtrak Station - VTA Light Rail	Along project's frontage on Trade Zone Blvd	6:00 AM - 10:00 AM (eastbound), 3:00 PM - 6:45 PM (westbound)	60 min
LRT - Orange Line	Mountain View - Alum Rock	Capitol Avenue/Cropley Avenue Intersection	5:30 AM - 1:00 AM	20 min
BART - Green Line	North San Jose - Daly City	Milpitas Transit Center	5:00 AM - 8:30 PM	15 min
BART - Orange Line	North San Jose - Richmond	Milpitas Transit Center	5:00 AM - 2:00 AM	15 min

The Orange LRT line (Mountain View - Alum Rock) operates along Capitol Avenue in the project area. The Cropley LRT station is the closest station to the project site and is located just south of the Capitol Avenue and Cropley Avenue/Trade Zone Boulevard intersection, which is less than a one-mile walking distance from the project site. Sidewalks are present for the majority of the route, except for an approximately 800-foot segment along Trade Zone Boulevard between Lundy Avenue and just west of the BART track overcrossing, where pedestrians need to travel through parking lots of adjacent properties. Striped bike lanes exist on both sides of Lundy Avenue, Trade Zone Boulevard, and Capitol Avenue between the site and the station.

#### VTA Bus Service

The closest bus stop to the project site is located along the project's frontage on Trade Zone Boulevard and is served by the Frequent Bus Routes 60 and 77.

#### Altamont Commuter Express (ACE) Violet Shuttle

The Altamont Commuter Express (ACE) Violet Shuttle operates from Santa Clara/Great America Station to East Milpitas during weekday peak hours. Eastbound service is provided during weekday mornings and westbound service is provided during weekday afternoons. The closest shuttle stop to the project site is located along the project's frontage on Trade Zone Boulevard.



### <u>BART</u>

BART operates the Orange and Green Lines with service to the Milpitas Transit Center located approximately 0.5 miles north of the project with approximately 15-minute headways during the commute periods.

# 3. CEQA Transportation Analysis

This chapter describes the CEQA transportation analysis, including the VMT analysis methodology and significance criteria, potential project impacts on VMT, mitigation measures recommended to reduce significant impacts, and an evaluation of consistency with the City of San Jose's General Plan.

# **CEQA Transportation Analysis Screening Criteria**

The City of San Jose *Transportation Analysis Handbook* identifies screening criteria that determine whether a CEQA transportation analysis would be required for development projects. The criteria are based on the type of project, characteristics, and/or location. If a project or a component of a mixed-use project meets the City's screening criteria, it is presumed that the project would result in a less-than-significant transportation impact and a detailed VMT analysis is not required. The type of development projects that may meet the screening criteria include the following:

- (1) small infill projects
- (2) local-serving retail
- (3) local-serving public facilities
- (4) projects located in *Planned Growth Areas* with low VMT and *High-Quality Transit*
- (5) deed-restricted affordable housing located in Planned Growth Areas with High-Quality Transit

Table 2 summarizes the screening criteria for each type of development project as identified in the City of San Jose Transportation Analysis Handbook. Figures 6 and 7 identify areas within the City that currently have low VMT levels estimated by the City for residents and workers, respectively, for which transit-supportive development located within a priority growth area would be screened out of the evaluation of VMT.

#### **Evaluation of Screening Criteria**

Per the City of San Jose VMT screening criteria, industrial uses of 30,000 square feet or less are considered small infill projects and do not require a CEQA VMT evaluation since the VMT generated by such small projects would likely not result in a significant impact to VMT. However, the project's 245,573 of equivalent industrial s.f. do not meet this criterion. Additionally, the project site is located within the Berryessa/International Business Park (BIBP) planned growth area. However, the existing area VMT per employee of 15.08 is above the baseline VMT per employee threshold of 14.37. Therefore, a CEQA-level transportation analysis that evaluates the project's effects on VMT is required.

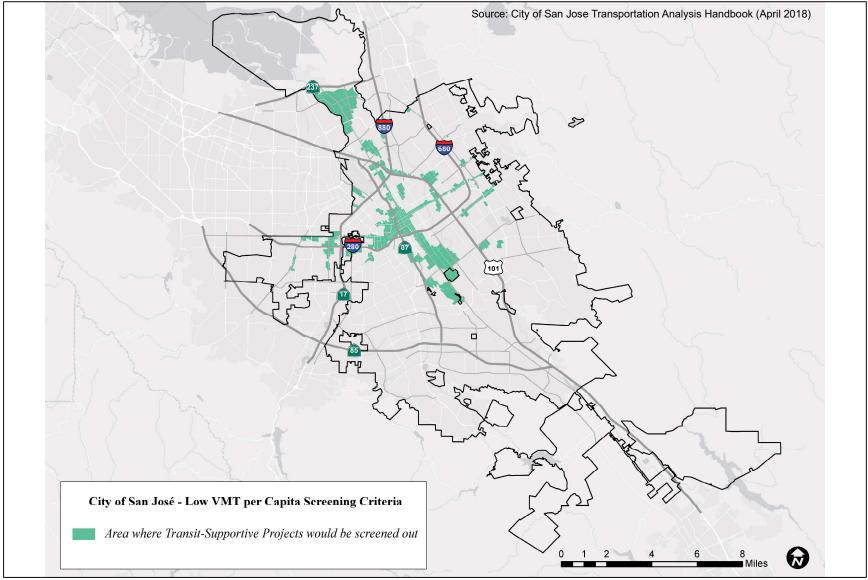


# Table 2CEQA VMT Analysis Screening Criteria for Development Projects

Туре	Screening Criteria
Small Infill Projects	<ul> <li>Single-family detached housing of 15 units or less; <u>OR</u></li> <li>Single-family attached or multi-family housing of 25 units or less; <u>OR</u></li> <li>Office of 10,000 square feet of gross floor area or less; <u>OR</u></li> <li>Industrial of 30,000 square feet of gross floor area or less</li> </ul>
Local-Serving Retail	100,000 square feet of total gross floor area or less without drive-through operations
Local-Serving Public Facilities	Local-serving public facilities
Residential/Office Projects or Components	<ul> <li>Planned Growth Areas: Located within a Planned Growth Area as defined in the Envision San José 2040 General Plan; <u>AND</u></li> <li>High-Quality Transit: Located within ½ a mile of an existing major transit stop or an existing stop along a high-quality transit corridor; <u>AND</u></li> <li>Low VMT: Located in an area in which the per capita VMT is less than or equal to the CEQA significance threshold for the land use; <u>AND</u></li> <li>Transit-Supporting Project Density: <ul> <li>Minimum Gross Floor Area Ratio (FAR) of 0.75 for office projects or components;</li> <li>Minimum of 35 units per acre for residential projects or components;</li> <li>If located in a Planned Growth Area that has a maximum density below 0.75 FAR or 35 units per acre, the maximum density allowed in the Planned Growth Area must be met; <u>AND</u></li> </ul> </li> <li>Parking: <ul> <li>No more than the minimum number of parking spaces required;</li> <li>If located in Urban Villages or Downtown, the number of parking spaces must be adjusted to the lowest amount allowed; however, if the parking is shared, publicly available, and/or "unbundled", the number of parking spaces can be up to the zoned minimum; <u>AND</u></li> </ul> </li> <li>Active Transportation: Not negatively impact transit, bike or pedestrian infrastructure.</li> </ul>
Restricted Affordable Residential Projects or Components	<ul> <li>Affordability: 100% restricted affordable units, excluding unrestricted manager units; affordability must extend for a minimum of 55 years for rental homes or 45 years for for-sale homes; <u>AND</u></li> <li>Planned Growth Areas: Located within a Planned Growth Area as defined in the Envision San José 2040 General Plan; <u>AND</u></li> <li>High Quality Transit: Located within ½ a mile of an existing major transit stop or an existing stop along a high quality transit corridor; <u>AND</u></li> <li>Transit-Supportive Project Density: <ul> <li>Minimum of 35 units per acre for residential projects or components;</li> <li>If located in a Planned Growth Area that has a maximum density below 35 units per acre, the maximum density allowed in the Planned Growth Area must be met; <u>AND</u></li> </ul> </li> <li>Transportation Demand Management (TDM): If located in an area in which the per capita VMT is higher than the CEQA significance threshold, a robust TDM plan must be included; <u>AND</u></li> <li>Parking: <ul> <li>No more than the minimum number of parking spaces required;</li> <li>If located in Urban Villages or Downtown, the number of parking spaces must be adjusted to the lowest amount allowed; however, if the parking is shared, publicly available, and/or "unbundled", the number of parking spaces can be up to the zoned minimum; <u>AND</u></li> </ul> </li> </ul>
Source: City of San José	Transportation Analysis Handbook, April 2020.

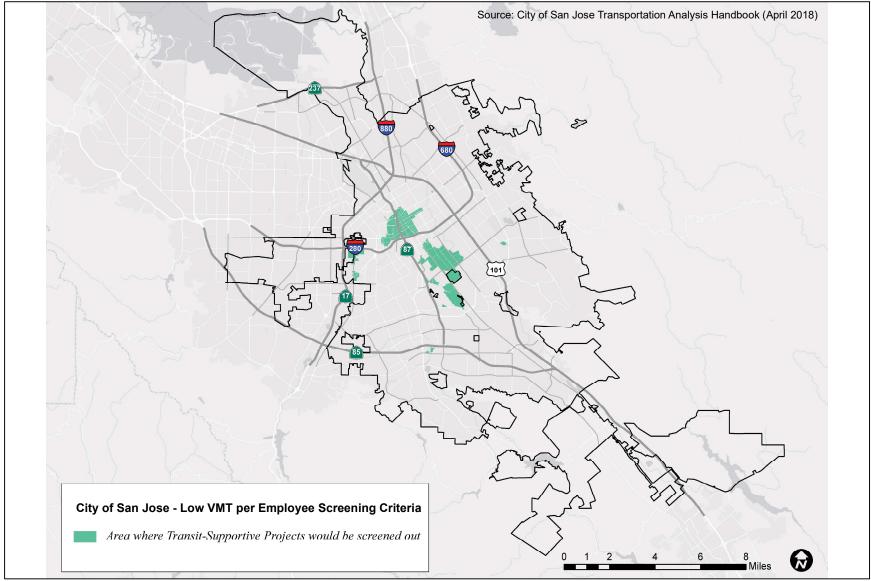


#### Figure 6 Low VMT per Capita Areas in San Jose





#### Figure 7 Low VMT per Employee Areas in San Jose





# VMT Evaluation Methodology and Criteria

Per Council Policy 5-1, the effects of the proposed project on VMT were evaluated using the methodology outlined in the City's *Transportation Analysis Handbook*. The City of San Jose defines VMT as the total miles of travel by personal motorized vehicles a project is expected to generate in a day. VMT is calculated using the Origin-Destination VMT method, which measures the full distance of personal motorized vehicle trips with one end within the project. A project's VMT is compared to established thresholds of significance based on the project location and type of development.

Typically, development projects that are farther from other, complementary land uses (such as a business park far from housing) and in areas without transit or active transportation infrastructure (bike lanes, sidewalks, etc.) generate more driving than development near complementary land uses with more robust transportation options. Therefore, developments located in a central business district with high density and diversity of complementary land uses and frequent transit services are expected to internalize trips and generate shorter and fewer vehicle trips than developments located in a suburban area with low density of residential developments and no transit serve in the project vicinity.

When assessing a residential project, the project's VMT is divided by the number of residents expected to occupy the project to determine the VMT per capita. When assessing an office or industrial project, the project's VMT is divided by the number of employees. Non-residential and non-employment uses, such as retail and hotel uses are assessed based on their effects on total VMT.

#### VMT Evaluation Tool

To determine whether a project would result in CEQA transportation impacts related to VMT, the City has developed the San Jose VMT Evaluation Tool to streamline the analysis for development projects. Based on the assessor's parcel number (APN) of a project, the VMT evaluation tool identifies the existing average VMT per capita and employee for the project area. Based on the project location, type of development, project description, and proposed trip reduction measures, the VMT evaluation tool calculates the project VMT.

VMT is typically calculated for common land uses such as residential, office, and industrial developments using the City's VMT tool. The City's VMT tool is not directly applicable to land uses such as data centers that are not reflective of one of the common land uses. Therefore, as recommended by City staff, the proposed data center space was converted to an equivalent amount of manufacturing space for the purpose of projecting VMT with the VMT tool. Data center uses are similar to manufacturing uses since both land uses have minimal amounts of office space. Therefore, the number and origination/destination of daily trips generated by both manufacturing and data center uses are expected to be similar.

The proposed 522,194 s.f. of data center space was converted into an equivalent amount of manufacturing space using trip generation estimates based on trip rates published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 11<sup>th</sup> Edition.* Data centers typically contain small amounts of supporting office space. The office space usually comprises less than 10 to 15 percent, of the total building space. Each of the proposed data center buildings will include approximately 14,000 s.f. of office space, which equates to no more than 7 percent of the total building space. Therefore, the office space is considered as part of the overall data center space when evaluating VMT. Based on the ITE daily trip rate for Data Centers (ITE Land Use Code 160), the proposed data center space is expected to generate 517 daily trips which are equivalent to the trips estimated to be generated by 109,000 s.f. of manufacturing space. Therefore, the proposed data center is expected to have employees with trip-making characteristics that are comparable to 109,000 s.f. of manufacturing space. Table 3 presents the data center to manufacturing equivalency calculation.



#### Table 3

#### Data Center to Manufacturing Space Conversion

	ip
Feet 0.99 51	7
<b>Feet</b> 4.75 51	7
ý	<b>Feet</b> 4.75 51

Projects located in areas where the existing VMT is greater than the established threshold are referred to as being in "high-VMT areas". Projects in high-VMT areas are required to include a set of VMT reduction measures that would reduce the project VMT to the greatest extent possible. The VMT evaluation tool evaluates a list of selected VMT reduction measures that can be applied to a project to reduce the project VMT. There are four strategy tiers whose effects on VMT can be calculated with the VMT evaluation tool:

- 1. Project characteristics (e.g. density, diversity of uses, design, and affordability of housing) that encourage walking, biking, and transit uses;
- 2. Multimodal network improvements that increase accessibility for transit users, bicyclists, and pedestrians;
- 3. Parking measures that discourage personal motorized vehicle trips; and
- 4. Transportation demand management (TDM) measures that provide incentives and services to encourage alternatives to personal motorized vehicle trips.

The first three strategies – land use characteristics, multimodal network improvements, and parking – are physical design strategies that can be incorporated into the project design. TDM includes programmatic measures that aim to reduce VMT by decreasing personal motorized vehicle mode share and by encouraging more walking, biking, and riding transit. TDM measures should be enforced through annual trip monitoring to assess the project's status in meeting the VMT reduction goals.

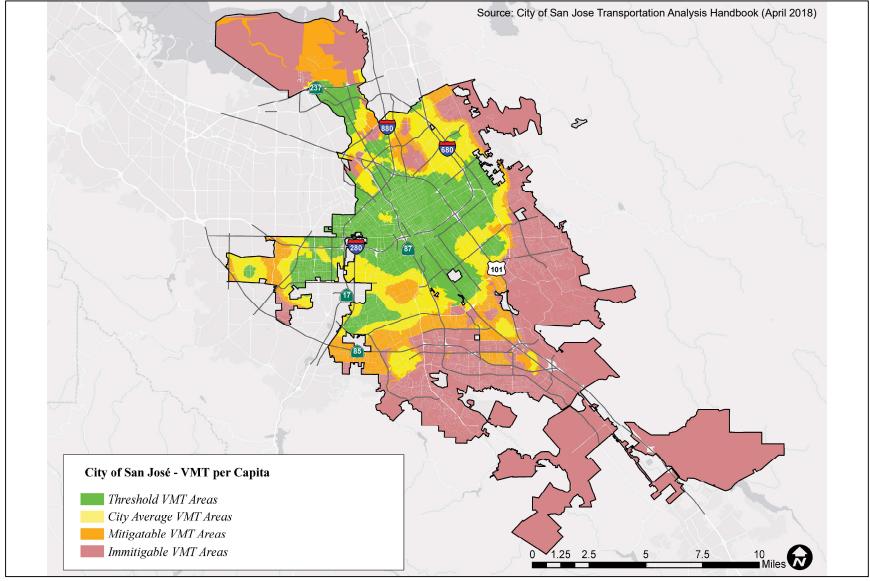
#### **Baseline VMT Estimates**

The thresholds of significance for residential and employment development projects, as established in the Transportation Analysis Policy, are based on the existing citywide average VMT level for residential uses and the existing regional average VMT level for employment uses. Figures 8 and 9 show the current VMT levels estimated by the City for residents and workers, respectively. Areas are color-coded based on the level of existing VMT:

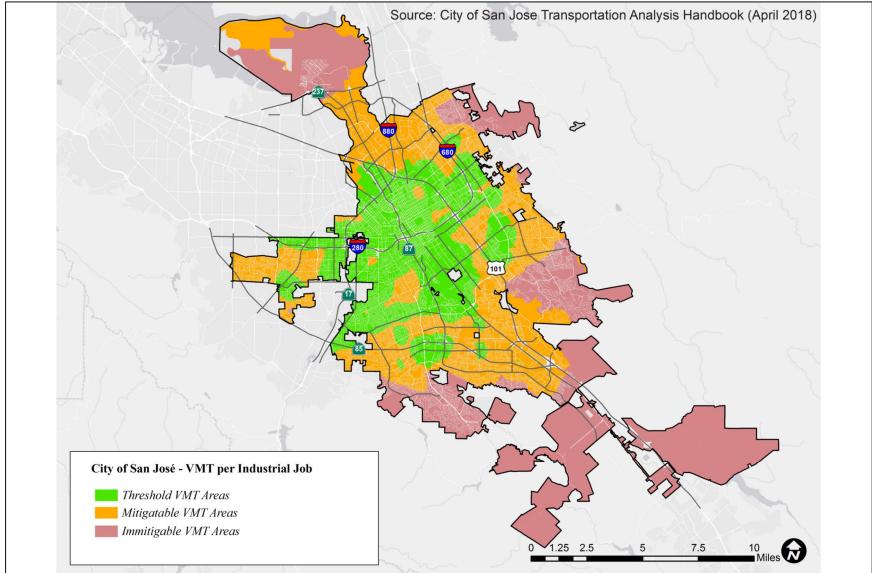
- Green-filled areas are parcels with existing VMT less than the City's residential and employee thresholds of 10.12 VMT per capita and 12.21 per employee. The thresholds are calculated by subtracting 15 percent from the citywide average of 11.91 VMT per capita and regional average of 14.37 per employee.
- Yellow-filled areas are parcels with existing VMT between the residential and employee thresholds and the city-wide average of 11.91 VMT per capita and regional average of 14.37 VMT per employee.
- Orange-filled areas are parcels with existing VMT greater than the residential and employee thresholds. However, a project's VMT impact may be mitigated by implementing VMT-reducing measures.



#### Figure 8 VMT per Capita Heat Map in San Jose







#### Figure 9 VMT per Industrial Employee Heat Map in San Jose



• Red-filled areas are parcels with existing VMT greater than the residential and employee threshold. Implementing VMT-reducing measures will not be sufficient to reduce a project's VMT to less than the threshold of significance.

Average per-capita and per-employee VMT for all the existing developments within ½ mile buffer of each parcel in the City serves as the baseline from which a project is evaluated. Figure 10 shows the current VMT levels estimated by the City for workers in the immediate project area.

#### **Thresholds of Significance**

If a project is found to have a significant impact on VMT, the impact must be reduced by modifying the project to reduce its VMT to an acceptable level (below the established thresholds of significance applicable to the project) and/or mitigating the impact through multimodal transportation improvements or establishing a Trip Cap. Table 4 shows the VMT thresholds of significance for development projects, as established in the Transportation Analysis Policy. For employment uses, such as the proposed project, the applicable criteria are as follows:

*Industrial Employment Uses:* Projects that include general employment uses (industrial) are said to create a significant adverse impact when the estimated project-generated VMT exceeds the existing regional average VMT per employee of 14.37.

# VMT of Existing Land Uses

The results of the VMT analysis using the VMT Evaluation Tool indicate that the existing VMT for employment uses in the project vicinity is 15.08 per employee. As shown in Table 4, the current regional average VMT for employment uses is 14.37 per employee. Therefore, the existing VMT levels of employment uses in the project vicinity are currently more than the regional average VMT. Appendix A presents the VMT Evaluation Tool summary report for the project.

## **Project-Level VMT Impact Analysis**

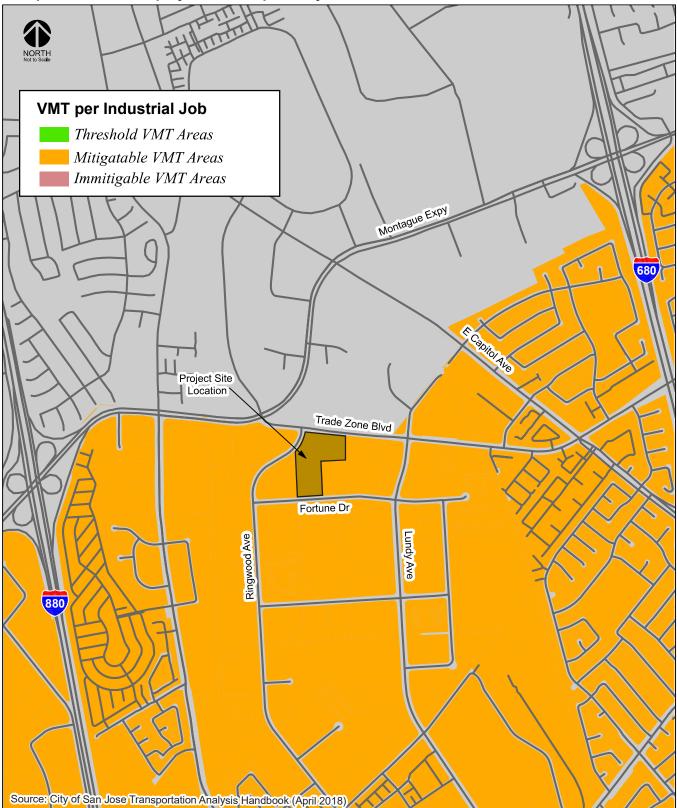
The City's Transportation Policy identifies an impact threshold for industrial projects to be the regional average per employee VMT of 14.37. Thus, the proposed project would result in a significant impact if it results in VMT that exceeds the per-employee VMT of 14.37.

The results of the VMT evaluation, using the City's VMT Evaluation Tool, indicate that the project is projected to generate VMT per employee (15.07), which would exceed the established impact threshold. Therefore, the project will result in an impact on the transportation system based on the City's VMT impact criteria. Figure 11 shows the VMT evaluation summary generated by the City of San Jose's VMT Evaluation Tool.

#### **Project Impacts and Mitigation Measures**

**Project Impact:** Since the VMT generated by the project (15.07 per employee) would exceed the impact threshold of 14.37 VMT per employee, the project would result in a significant transportation impact on VMT, and mitigation measures are required to reduce the VMT impact. Per the *Transportation Analysis Handbook*, projects located in areas where the existing VMT is above the established threshold are referred to as being in "high-VMT areas", and projects in high-VMT areas are required to include a set of VMT reduction measures that would reduce the project VMT to the greatest extent possible. Based on preliminary direction from City staff, the project will be required to implement the following multi-modal facility improvements to reduce the project's VMT impact to less than significant levels.

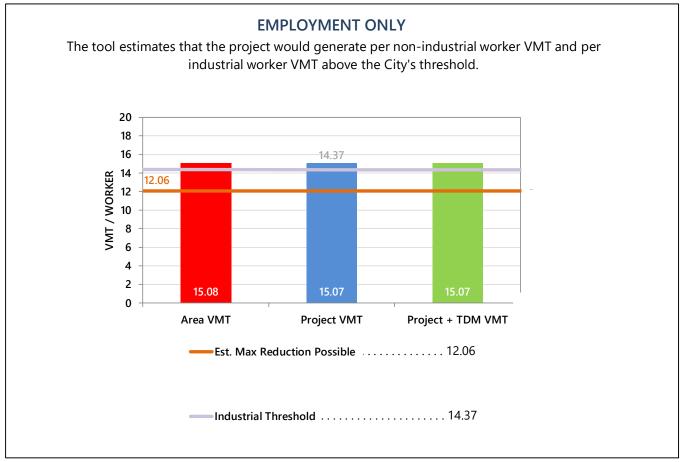




#### Figure 10 VMT per Industrial Employee Heat Map in Project Area



#### Figure 11 VMT Analysis





## Table 4

#### **CEQA VMT Analysis Significant Impact Criteria for Development Projects**

Туре	Significance Criteria	Current Level	Threshold
Residential Uses	Project VMT per capita exceeds existing citywide average VMT per capita minus 15 percent <u>OR</u> existing regional average VMT per capita minus 15 percent, whichever is lower.	11.91 VMT per capita (Citywide Average)	10.12 VMT per capita
General Employment Uses	Project VMT per employee exceeds existing regional average VMT per employee minus 15 percent	14.37 VMT per employee (Regional Average)	12.21 VMT per employee
Industrial Employment Uses	Project VMT per employee exceeds existing regional average VMT per employee	14.37 VMT per employee (Regional Average)	14.37 VMT per employee
Retail/ Hotel/ School Uses	Net increase in existing regional total VMT	Regional Total VMT	Net Increase
Public/Quasi-Public Uses	In accordance with the most appropriate type(s) as determined by Public Works Director	Appropriate levels listed above	Appropriate thresholds listed above
Mixed Uses	Evaluate each land use component of a mixed-use project independently, and apply the threshold of significance for each land use type included	Appropriate levels listed above	Appropriate thresholds listed above
Change of Use or Additions to Existing Development	Evaluate the full site with the change of use or additions to existing development, and apply the threshold of significance for each project type included	Appropriate levels listed above	Appropriate thresholds listed above
Area Plans	Evaluate each land use component of the area plan independently, and apply the threshold of significance for each land use type included	Appropriate levels listed above	Appropriate thresholds listed above

Source: City of San José Transportation Analysis Handbook, April 2020.

- <u>Provide Pedestrian Network Improvements for Active Transportation (Tier 2):</u> Implement
  pedestrian improvements both on-site and in the surrounding area. Improving the pedestrian
  connections encourages people to walk instead of drive and reduces VMT. The project will be
  required to remove the pork-chop islands or provide raised crosswalks at the southwest and
  southeast corners of the Ringwood Avenue/Trade Zone Boulevard intersection. These
  improvements will require signal modification and the coordination between the Cities of San Jose
  and Milpitas and VTA. and
- <u>Provide Traffic Calming Measures (Tier 2)</u>: Implement pedestrian/bicycle safety and traffic calming measures both on-site and in the surrounding neighborhood. Providing traffic calming measures promotes walking and biking as an alternative to driving. The project will be required to construct a raised median island for the existing left-turn pockets along the westbound direction on Trade Zone Boulevard to improve pedestrian safety and access. These improvements will require coordination with the City of Milpitas and VTA.

The measures are consistent with the City's improvement planline at Trade Zone Boulevard and Ringwood Avenue presented in Figure 12. The implementation of Tier 2 measures described above



would reduce the VMT generated by the project to 14.47 per employee, which is still more than the established threshold of 14.37 VMT per employee. The project's VMT could be reduced to 14.26 per employee with the implementation of the following Travel Demand Management (TDM) measure. It should be noted that the TDM measure may be incorporated within a TDM plan for the project which may include additional TDM measures.

• <u>Telecommuting and Alternative Work Schedules:</u> Encourage employees to telecommute from home when possible, or to shift work schedules such that travel occurs outside of peak congestion periods. This strategy reduces commute trips, thereby reducing VMT. At a minimum, the measure would require that 10% of employees work a 4/40 work week schedule (10-hour workdays for four days a week).

The applicant will need to work with the City to ensure the measures are feasible or identify other multimodal improvements and/or TDM measures deemed appropriate for the development plan and uses of the site. Therefore, the ultimate mitigation measures may differ from those identified below so long as the measures meet the required 4.7 percent reduction in VMT and are approved by City staff.

Figure 13 shows the VMT evaluation summary with mitigation generated by the City's VMT Evaluation Tool. Appendix A presents the VMT Evaluation Tool summary report for the project with the mitigation measures.

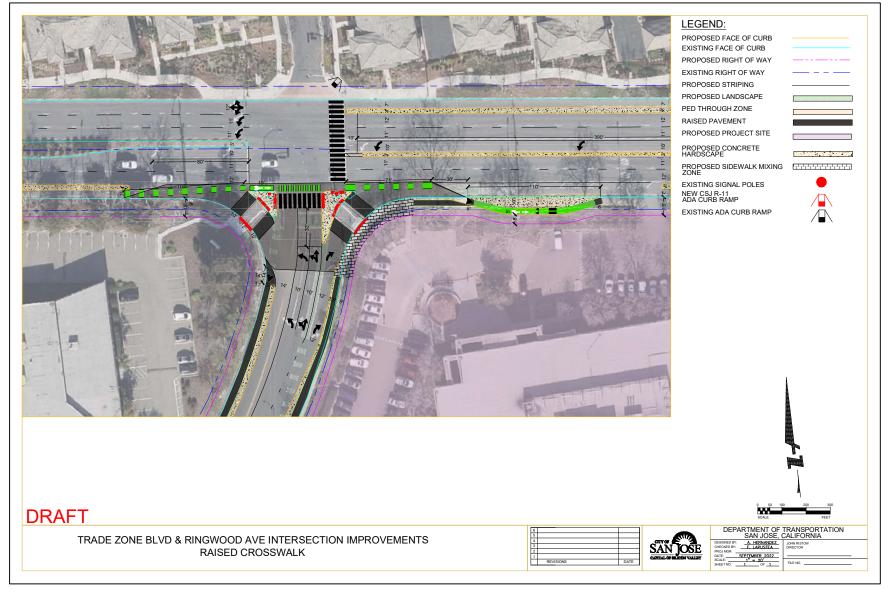
## **Cumulative (GP Consistency) Evaluation**

Projects must demonstrate consistency with the *Envision San José 2040 General Plan* to address cumulative impacts. Consistency with the City's General Plan is based on the project's density, design, and conformance to the General Plan goals and policies. If a project is determined to be inconsistent with the General Plan, a cumulative impact analysis is required per the City's *Transportation Analysis Handbook*.

According to the Envision San Jose 2040 General Plan, the project site is designated for *Transit Employment Center* uses. This designation is applied to areas planned for intensive job growth because of their importance as employment districts to the City and a high degree of access to transit and other facilities and services. This designation permits development with retail and service commercial uses on the first two floors; with office, research and development, or industrial use on upper floors; as well as wholly office, research and development, or industrial projects.

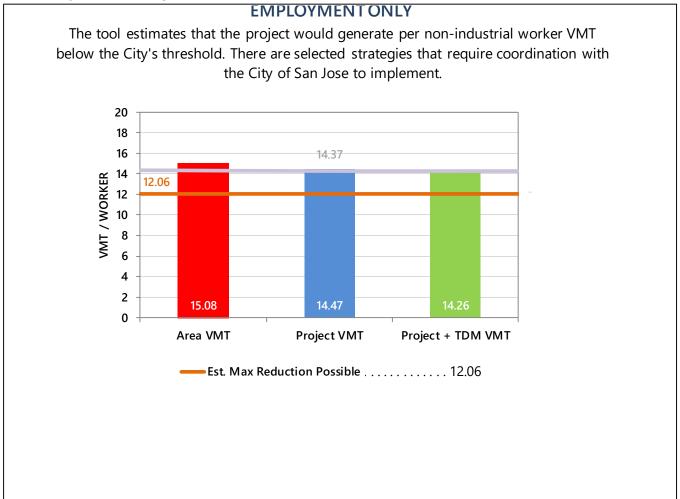
Since the *Transit Employment Center* designation allows industrial uses, the proposed industrial project is consistent with the Envision San Jose 2040 General Plan and would not require a General Plan Amendment (GPA). The project would be considered part of the cumulative solution to meet the General Plan's long-range transportation goals and would result in a less-than-significant cumulative impact.

## Figure 12 Trade Zone Boulevard and Ringwood Avenue Improvement Planline





## Figure 13 VMT Analysis with Mitigations



## 4. Local Transportation Analysis

This chapter describes the Local Transportation Analysis (LTA) including the method by which project traffic is estimated, intersection operations analysis for existing, background, and background plus project, any adverse effects on study intersections caused by the project, intersection vehicle queuing analysis, freeway segment capacity, site access and on-site circulation review, effects on bicycle, pedestrian, and transit facilities, and parking.

The LTA supplements the CEQA VMT analysis and identifies transportation and traffic operational issues that may arise due to a development project. The LTA is required per the City of San Jose Transportation Policy, however, the determination of project impacts per CEQA requirements is based solely on the VMT analysis presented in the previous chapter. The LTA provides supplemental analysis for use by the City of San Jose in identifying potential improvements to the transportation system with a focus on improving multi-modal travel.

## **Project Description**

The proposed project would demolish the two existing buildings on site and construct a 522,194-s.f. data center and 136,573 s.f. of manufacturing space. Parking for each of the buildings will be provided by a five-level 339-space parking garage. The entire site will be secured with a gate including each of the project access points. Vehicular access to the parking garage will be provided via a right-in-only driveway and a right-out-only driveway along Trade Zone Boulevard. The right-out only driveway along Trade Zone Boulevard also will provide ingress and egress from a PG&E substation and its access gates. Two additional driveways – one along Ringwood Avenue and the other along Fortune Drive – would serve as entrance and exit for trucks only.

## **Project Trip Estimates**

The magnitude of traffic produced by a new development and the locations where that traffic would appear are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic entering and exiting the site is estimated for the AM and PM peak hours. As part of the project trip distribution, the directions to and from which the project trips would travel are estimated. In the project trip assignment, the project trips are assigned to specific streets and intersections. These procedures are described below.



## **Trip Generation**

## Proposed Project Trips

Through empirical research, data have been collected that indicate the amount of traffic that can be expected to be generated by common land uses. Project trip generation was estimated by applying to the size and uses of the development the appropriate trip generation rates. The average trip generation rates for Data Center (Land Use #160) and Manufacturing (Land Use #140) as published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11<sup>th</sup> Edition* (2021) were applied to the proposed data center and manufacturing space, respectively, to estimate the project trips. Based on the trip generation rates, it is estimated that the project would generate a total of 1,166 daily vehicle trips, with 150 trips (102 inbound and 48 outbound) occurring during the AM peak hour and 148 trips (45 inbound and 103 outbound) occurring during the PM peak hour before any reductions.

## Trip Reductions

In accordance with San Jose's *Transportation Analysis Handbook* (April 2020, Section 4.8, "Intersection Operations Analysis"), the project is eligible for adjustments and reductions from the baseline (gross) trip generation described above.

Based on the San Jose guidelines, the project qualifies for a location-based adjustment. The locationbased adjustment reflects the project's vehicle mode share based on the "place type" in which the project is located per the San Jose Travel Demand Model. The project's place type was obtained from the San Jose VMT Evaluation Tool. Based on the evaluation tool, the project site is located within a *Suburb with Multifamily Homes* place type. Based on Table 6 of the City of San Jose *Transportation Analysis Handbook*, April 2020, industrial developments within *Suburb with Multifamily Homes* areas have vehicle mode shares of 92 percent. Thus, an 8 percent reduction was applied to the project trip generation estimates based on the location-based vehicle mode share outputs produced from the San Jose Travel Demand Model.

Additionally, based on the San Jose VMT Evaluation Tool, the proposed project is anticipated to generate 15.07 VMT per employee in an area that currently generates approximately 15.08 VMT per employee. Per City guidelines, every percent reduction from the existing VMT is equivalent to one percent reduction in peak-hour vehicle trips. Thus, the project trip estimates were reduced by 0.07 percent for the proposed employment uses to reflect the reduction in peak hour trips.

After applying the ITE trip rates and appropriate trip reductions, the proposed project is estimated to generate a total of 1,072 daily vehicle trips, with 138 trips (94 inbound and 44 outbound) occurring during the AM peak hour and 136 trips (41 inbound and 95 outbound) occurring during the PM peak hour.

## Existing Site Trip Credit

Trips associated with the existing occupied 80,000-s.f. office building on the project site were subtracted from the estimated trips to be generated by the proposed project. The AM and PM peak-hour trips for the existing office building on-site were obtained from counts (included in Appendix B) conducted at the existing project site's driveways. Daily trips were estimated based on the average trip generation rates for General Office Building (Land Use #710) as published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11<sup>th</sup> Edition* (2021).

Based on the driveway counts and ITE's trip generation rates, it is estimated that the existing uses on the project site are generating a total of 867 daily vehicle trips, with 48 trips (40 inbound and 8 outbound) occurring during the AM peak hour and 95 trips (20 inbound and 75 outbound) occurring during the PM peak hour.



## Net Project Trips

After applying the ITE trip rates, appropriate trip reductions, and existing site trip credits, it is estimated that the project would generate an additional 205 daily vehicle trips, with 90 trips (54 inbound and 36 outbound) occurring during the AM peak hour and 41 trips (21 inbound and 20 outbound) occurring during the PM peak hour. The project trip generation estimates are presented in Table 5.

## **Trip Distribution and Trip Assignment**

The trip distribution pattern for the project was developed based on existing travel patterns on the surrounding roadway system and the locations of complementary land uses. The peak-hour vehicle trips generated by the project were assigned to the roadway network in accordance with the trip distribution pattern, with an emphasis on freeway access and project driveway location. Figure 14 shows the trip distribution pattern, and Figure 15 shows the assignment of project traffic on the local transportation network. Note that the project includes adjustments to the site access points. Therefore, the project trips shown in Figure 15 include negative trips that represent a redistribution of existing trips and the existing site access.

## Intersection Operations Methodology

This section presents the methods used to evaluate traffic operations at the study intersections. It includes descriptions of the data requirements, the analysis methodologies, the applicable level of service standards, and the criteria defining adverse effects at the study intersections.

The intersection operations analysis is intended to quantify the operations of intersections and to identify potential negative effects due to the addition of project traffic. However, a potential adverse effect on a study intersection is not considered a CEQA impact metric.

## **Study Intersections**

The study includes an analysis of AM and PM peak-hour traffic conditions for eight signalized intersections and one unsignalized intersection in the Cities of San Jose and Milpitas. Intersections were selected for study if the project is expected to add 10 vehicle trips per hour per lane to an intersection that meets one of the following criteria as outlined in the *Transportation Analysis Handbook*.

- Within a <sup>1</sup>/<sub>2</sub>-mile buffer from the project's property line;
- Outside a <sup>1</sup>/<sub>2</sub>-mile buffer but within a one-mile buffer from the project AND currently operating at D or worse;
- Designated Congestion Management Program (CMP) facility outside of the City's Infill Opportunity Zones;
- Outside the City limits with the potential to be affected by the project, per the transportation standards of the corresponding external jurisdiction;
- With the potential to be affected by the project, per engineering judgment of Public Works.

The following study intersections were selected based on the above criteria (see Figure 15).

## City of San Jose Signalized Study Intersections

- 1. Oakland Road/Main Street and Montague Expressway \*
- 2. Trade Zone Boulevard/McCandless Drive and Montague Expressway \*
- 3. Ringwood Avenue and Trade Zone Boulevard
- 4. Lundy Avenue and Trade Zone Boulevard
- 5. Capitol Avenue and Trade Zone Boulevard/Cropley Avenue



## Table 5Project Trip Generation Estimates

							AM Peak Hour				PM Peak Hour							
	Reduction	VN	ЛТ		D	aily		S	plit		Trip			S	plit		Trip	
Land Use	%	Existing	Project	Size	Rate	Trip	Rate	In	Out	In	Out	Total	Rate	In	Out	In	Out	Total
Proposed Land Uses																		
#160 - Data Center				522,194 Square Feet	0.99	517	0.11	55%	45%	31	26	57	0.09	30%	70%	14	33	47
#140 - Manufacturing				136,573 Square Feet	4.75	649	0.68	76%	24%	71	22	93	0.74	31%	69%	31	70	101
Location-Based Reduction <sup>1</sup>	8%					-93				-8	-4	-12				-4	-8	-12
VMT-Based Reduction <sup>2</sup>	0.07%	15.08	15.07			-1				0	0	0				0	0	0
Total Project Trips						1,072				94	44	138				41	95	136
Existing Land Uses																		
General Office Building <sup>3</sup>				80,000 Square Feet	10.84	867				40	8	48				20	75	95
Net Project Trips						205				54	36	90				21	20	41

Source: ITE Trip Generation Manual, 11<sup>th</sup> Edition 2021.

The place type (Suburban with Multi-Family Homes Place Type) for the project site is obtained from the City of San Jose VMT Evaluation Tool (February 29, 2019). The location-based vehicle mode shares are obtained from Table 6 of the City of San Jose Transportation Analysis Handbook (April 2020). The trip reductions are based on the percent of mode share for all of the other modes of travel beside vehicle.

Existing and project VMTs were estimated using the City of San Jose VMT Evaluation Tool. It is assumed that every percent reduction in VMT per-employee is equivalent to one percent reduction in peak-hour vehicle trips. Daily trips were estimated based on ITE trip rate for general office building land use #710 and AM and PM peak-hour trips were obtained from driveway counts collected on March 31, 2022.



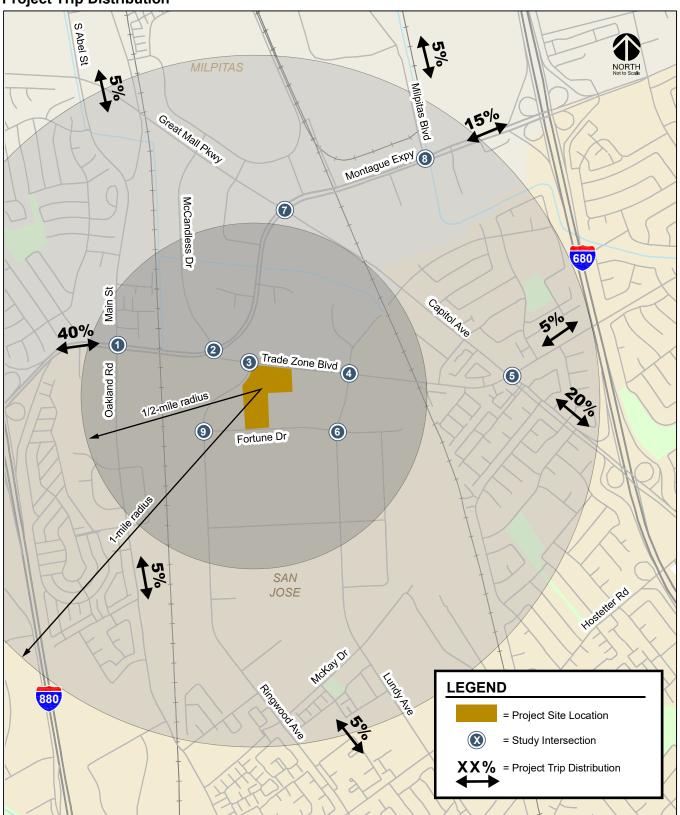
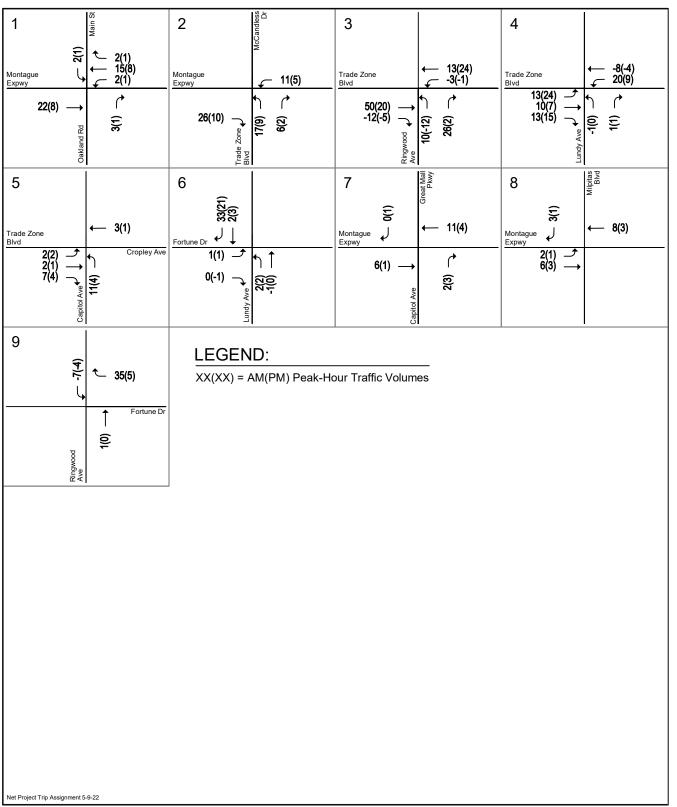


Figure 14 Project Trip Distribution





## Figure 15 Net Project Trip Assignment



6. Lundy Avenue and Fortune Drive

#### City of Milpitas Signalized Study Intersections

- 7. Capitol Avenue/Great Mall Parkway and Montague Expressway \*
- 8. Milpitas Boulevard and Montague Expressway \*

## City of San Jose Unsignalized Study Intersections

- 9. Ringwood Avenue and Fortune Drive (unsignalized)
  - \* Denotes CMP Intersection

## Data Requirements

The data required for the analysis were obtained from the City of San Jose, recently completed traffic studies in the area, the CMP, and field observations. The following data were collected from these sources:

- existing traffic volumes
- existing lane configurations
- signal timing and phasing
- approved project trips

## Lane Configurations

The existing lane configurations at the study intersections were determined by observations in the field and are shown in Figure 16. It is assumed in this analysis that the transportation network under background and background plus project would be the same as the existing transportation network.

## **Traffic Volumes**

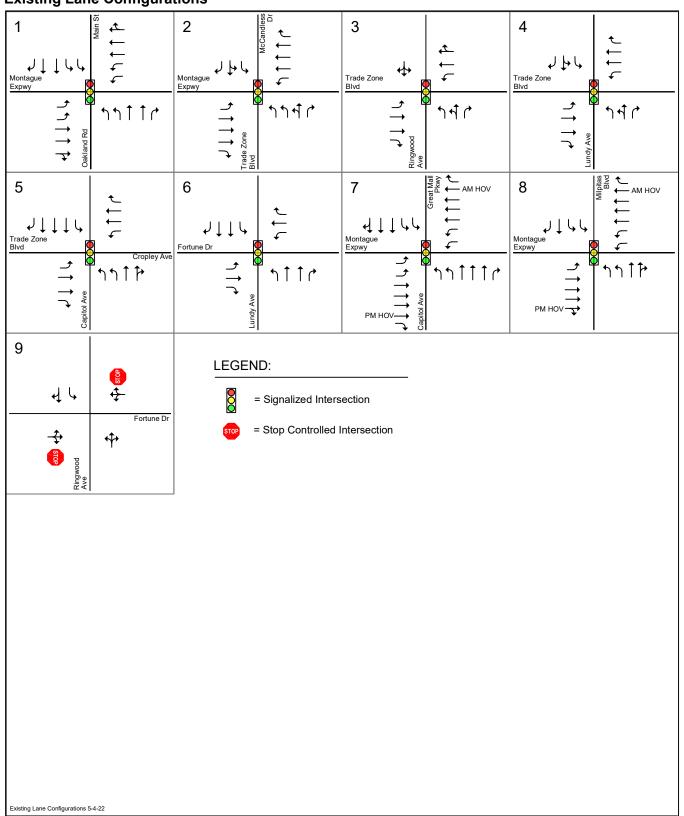
## **Existing Traffic Volumes**

Existing peak hour traffic volumes at all study intersections were obtained from the City of San Jose, recently completed traffic studies in the area, and the CMP. Due to the current COVID-19 pandemic situation, and its effect on traffic patterns, the City of San Jose is requiring that all new traffic counts for study intersections be put on hold until further notice. Therefore, as recommended by the City of San Jose staff, a 1% compounded annual growth factor was applied to traffic counts that are older than two years to estimate general traffic conditions in 2022 without the Milpitas BART Station traffic. Additionally, all counts used in the analysis did not include traffic associated with the Milpitas BART Station TIA completed in 2013 by Hexagon and added to the factored counts to represent existing conditions. The counts used in the analysis for the Ringwood Avenue/Fortune Drive unsignalized intersection were extrapolated from adjacent study intersections. The existing peak-hour intersection volumes are shown in Figure 17. The traffic counts are included in Appendix B.

## **Background Traffic Volumes**

The background traffic scenario predicts a realistic traffic condition that would occur as the approved development is built. Background traffic volumes were estimated by adding to existing peak hour volumes the projected volumes from approved but not yet completed developments. The added traffic from approved but not yet completed developments was provided by the City of San Jose in the form of the Approved Trips Inventory (ATI). The list of approved but not yet completed developments in Milpitas

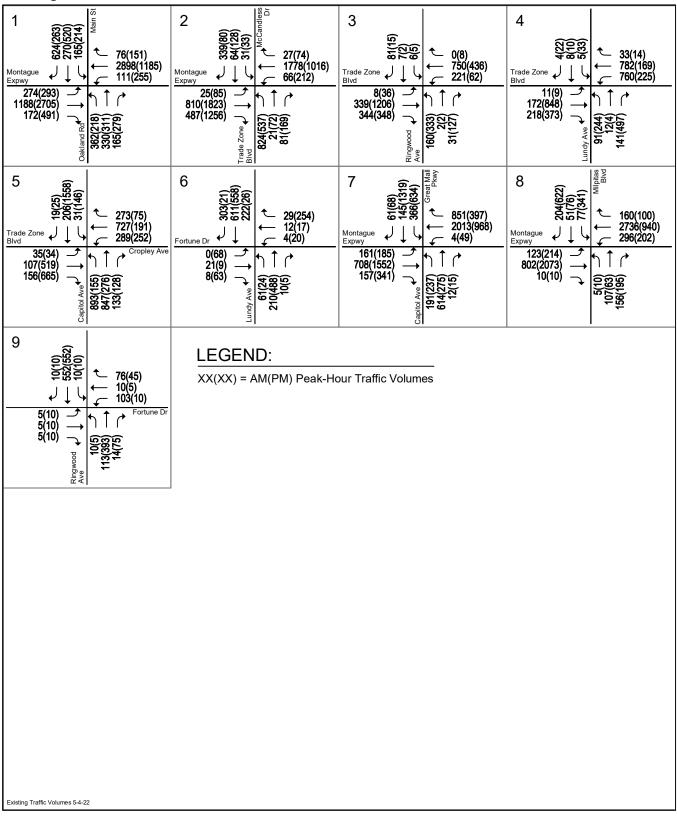




## Figure 16 Existing Lane Configurations



Figure 17	
Existing Traffic Volumes	



was obtained from the City of Milpitas' website. The approved project information is included in Appendix C. Background traffic volumes are shown in Figure 18.

## **Background Plus Project Traffic Volumes**

Net project trips were added to background traffic volumes to obtain background plus project traffic volumes (see Figure 19). The traffic volumes for all components of traffic are tabulated in Appendix D.

## Level of Service Standards and Analysis Methodologies

Traffic conditions at the study intersections were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. The analysis methods are described below.

All study intersections were evaluated based on the 2000 Highway Capacity Manual (HCM) level of service methodology using the TRAFFIX software. This method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. TRAFFIX is also the CMP-designated intersection level of service methodology, thus, the City of San Jose employs the CMP default values for the analysis parameters. The correlation between average control delay and level of service at signalized intersections is shown in Table 6.

Level of Service	Description	Average Control Delay per Vehicle (sec.)
А	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	up to 10.0
В	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 20.0
С	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.1 to 80.0
F	Operation with delays unacceptable to most drivers occurring due to oversaturation, poor progression, or very long cycle lengths.	Greater than 80.0

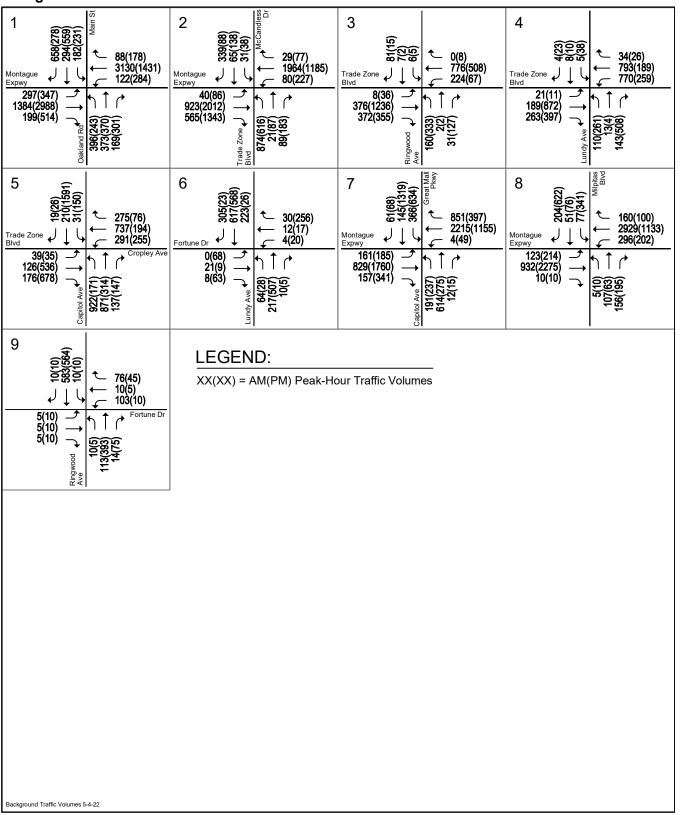
# Table 6 Signalized Intersection Level of Service Definitions Based on Control Delay

Sources: Transportation Research Board, 2000 Highway Capacity Manual. Traffic Level of Service Analysis Guidelines, Santa Clara County Transportation Authority Congestion Management Program, June 2003.

Signalized study intersections in the City of San Jose are subject to the City of San Jose level of service standards with the exception of intersections located within IOZs. The City of San Jose has established LOS D as the minimum acceptable intersection operations standard for all signalized intersections unless superseded by an Area Development Policy. CMP-designated intersections located within IOZs are exempt from both the City of San Jose and CMP LOS standards.

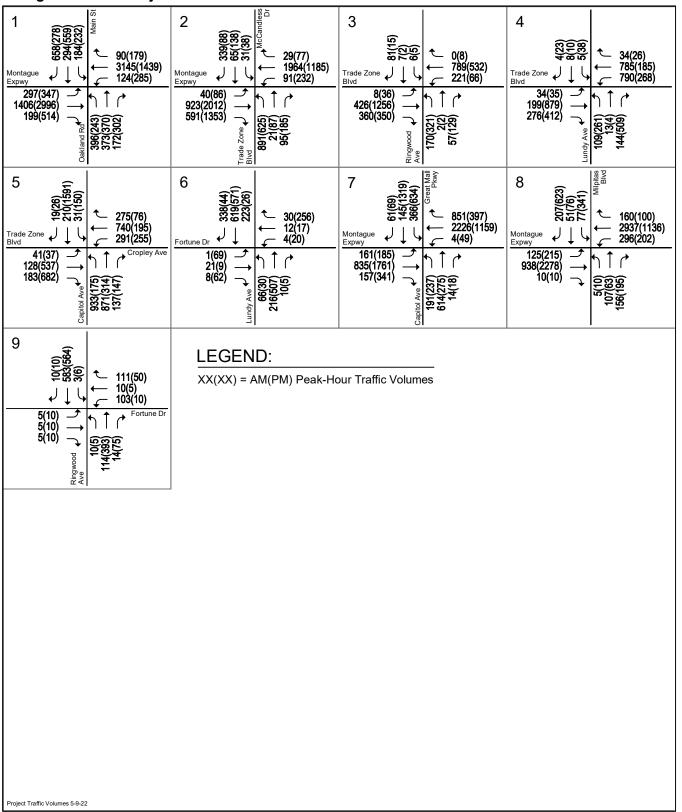
Signalized CMP study intersections in the City of Milpitas are subject to CMP LOS standards.





## Figure 18 Background Traffic Volumes

🗌 Hexagon



## Figure 19 Background Plus Project Traffic Volumes



## City of San Jose Definition of Adverse Intersection Operations Effects

According to the City of San Jose's *Transportation Analysis Handbook 2020*, an adverse effect on intersection operations occurs if for either peak hour:

- 1. The level of service at the intersection degrades from an acceptable level (LOS D or better) under background conditions to an unacceptable level under background plus project conditions, or
- The level of service at the intersection is an unacceptable level (LOS E or F) under background conditions and the addition of project trips causes both the critical-movement delay at the intersection to increase by four or more seconds and the volume-to-capacity ratio (V/C) to increase by one percent (.01) or more.

The exception to this threshold is when the addition of project traffic reduces the amount of average control delay for critical movements, i.e., the change in average control delay for critical movements is negative. In this case, the threshold is when the project increases the critical v/c value by 0.01 or more.

An adverse intersection operations effect by City of San Jose standards may be addressed by implementing measures that would restore the intersection level of service to background conditions or better. The City recommends prioritizing improvements related to alternative transportation modes, parking measures, and/or TDM measures. Improvements that increase vehicle capacity are secondary and must not have unacceptable effects on existing or planned transportation facilities. Unacceptable effects on existing or planned transportation facilities include the following:

- Inconsistent with the General Plan Transportation Network and Street Typologies;
- Reduction of any physical dimension of a transportation facility below the minimum design standards per the *San José Complete Streets Design Standards and Guidelines*; OR
- Substantial deterioration in the quality of existing or planned transportation facilities, including pedestrian, bicycle, and transit systems and facilities, as determined by the Director of Transportation.

## **Conformance to the CMP Standard**

Based on CMP criteria, a project would fail to meet the CMP intersection standard if the additional project traffic caused one of the following during either peak hour:

- 1. The level of service at the intersection degrades from an acceptable LOS E or better under background conditions to an unacceptable LOS F under project conditions, <u>or</u>
- 2. The level of service at the intersection is an unacceptable LOS F under background conditions and the addition of project trips causes both the critical-movement delay at the intersection to increase by four (4) or more seconds *and* the volume-to-capacity ratio (V/C) to increase by one percent (.01) or more.

An exception to this rule applies when the addition of project traffic reduces the amount of average delay for critical movements (i.e. the change in average delay for critical movements is negative). In this case, the threshold is an increase in the critical V/C value by.01 or more.

An adverse intersection effect by CMP standards is said to be satisfactorily addressed when measures are implemented that would restore the intersection level of service to background conditions or better.



## Intersection Operations Analysis Results

The intersection level of service analysis is summarized in Table 7. Intersection levels of service were evaluated against the applicable level of service standards.

## **Existing Intersection Operation Conditions**

The results of the level of service analysis show that the following three intersections are currently operating at unacceptable levels of service during at least one of the peak hours under existing conditions based on the applicable level of service standards.

- 1. Oakland Road/Main Street and Montague Expressway \* (AM and PM Peak Hours)
- 2. Trade Zone Boulevard/McCandless Drive and Montague Expressway \* (PM Peak Hour)
- 8. Milpitas Boulevard and Montague Expressway \* (PM Peak Hour)
- \* Denotes CMP Intersection

The remaining study intersections are currently operating at acceptable levels of service under existing conditions during both the AM and PM peak hours based on the applicable LOS standards. The intersection level of service calculation sheets are included in Appendix E.

## **Background Intersection Operation Conditions**

The results of the level of service analysis show that the following two intersections are projected to operate at unacceptable levels of service during at least one of the peak hours under background conditions based on the applicable level of service standards.

- 1. Oakland Road/Main Street and Montague Expressway \* (AM and PM Peak Hours)
- 2. Trade Zone Boulevard/McCandless Drive and Montague Expressway \* (PM Peak Hour)
- \* Denotes CMP Intersection

The Milpitas Boulevard/Montague Expressway CMP-designated intersection's level of service would improve from an unacceptable LOS F during the PM peak hour under existing conditions to an acceptable LOS E under background conditions due to the addition of the approved trips to the through movements on Montague Expressway with low delays and thus reducing the overall weighted average delay and improving the level of service at this intersection.

The remaining study intersections are projected to operate at acceptable levels of service under background conditions during both the AM and PM peak hours based on the applicable LOS standards. The intersection level of service calculation sheets are included in Appendix E.

## **Background Plus Project Intersection Operation Conditions**

The results of the level of service analysis show that, based on the applicable level of service standards, the same two intersections identified to operate at unacceptable levels of service under background conditions would continue to operate at the same levels of service under background plus project conditions. However, the added net trips as a result of the proposed project would not have an adverse effect on intersection operations at any of the study intersections based on the applicable guidelines. The intersection level of service calculation sheets are included in Appendix E.



## Table 7

## Intersection Level of Service Results

						Exist	Existing Back		Background Ba		Background Plus Project		
Int.			LOS	Peak	Count	Avg.		Avg.		Avg.		Incr. In	Incr. In
#	Intersection	Location	Standard	Hour	Date	Delay	LOS	Delay	LOS	Delay	LOS	Crit. Delay	Crit. V/C
1	Oakland Road/Main Street and Montague Expressway *	San Jose	D	AM PM	11/15/16 11/08/18	74.2 72.3	E E	90.9 86.1	F F	91.4 86.4	F F	1.0 0.5	0.003 0.002
2	Trade Zone Boulevard/McCandless Drive and Montague Expressway *	San Jose	D	AM PM	09/17/19 11/08/18	46.6 <b>63.4</b>	D E	47.2 <b>75.9</b>	D E	47.7 <b>77.2</b>	D E	0.3 <b>2.8</b>	0.004 <b>0.009</b>
3	Ringwood Avenue and Trade Zone Boulevard	San Jose	D	AM PM	09/17/19 09/17/19	20.3 19.7	C B	20.1 19.6	C B	20.3 19.4	C B	0.2 -0.3	0.008 0.002
4	Lundy Avenue and Trade Zone Boulevard	San Jose	D	AM PM	09/13/18 09/13/18	22.7 29.0	C C	25.7 29.6	C C	27.3 29.7	C C	0.6 0.0	0.016 0.003
5	Capitol Avenue and Trade Zone Boulevard/Cropley Avenue	San Jose	D	AM PM	01/23/18 01/23/18	36.5 47.2	D D	36.7 48.1	D D	36.7 48.3	D D	0.0 0.3	0.004 0.003
6	Lundy Avenue and Fortune Drive	San Jose	D	AM PM	09/17/19 09/17/19	14.3 12.4	B B	14.4 12.4	B B	11.0 12.4	B B	2.2 0.1	0.112 0.002
7	Capitol Avenue/Great Mall Parkway and Montague Expressway*	Milpitas	E	AM PM	05/23/19 11/08/18	45.9 50.1	D D	46.1 49.8	D D	46.1 49.8	D D	0.0 0.0	0.001 0.001
8	Milpitas Boulevard and Montague Expressway *	Milpitas	E	AM PM	09/01/16 11/08/18	51.4 <b>81.3</b>	D F	50.8 77.5	D E	50.8 77.5	D E	-0.2 -0.1	0.001 0.000
	* Denotes CMP Intersection												

Bold indicates unacceptable level of service.



## **US-101/Oakland/Mabury Transportation Development**

The US-101/Oakland/Mabury Transportation Development Policy (TDP) provides for additional capacity in the immediate area of the US-101/Oakland interchange. The TDP is intended to achieve the following goals:

- 1. Management of traffic congestion generated by near-term new development in the vicinity of the US-101/Oakland Road interchange
- 2. Promotion of General Plan goals for economic development and housing; and
- 3. Improvement of the US-101/Oakland Road interchange and construction of the new US-101/Mabury Road interchange to accommodate new development

The US-101/Oakland interchange serves as the primary access points to regional freeway facilities in the project area. As such, the Oakland Road and Commercial Street corridors that serve the US-101/Oakland interchange currently experience traffic congestion during the peak commute hours. The TDP identified existing operations and the required improvements for future development along the US-101/Oakland Road and US-101/Mabury Road corridors. A key element of the TDP was the establishment of a traffic impact fee (TIF) program for new development in the area to fund the identified transportation network improvements.

Any project that would add trips through the identified Policy Interchange Intersections is required to participate in the TDP program. The fee for the US 101/Oakland/Mabury TDP is based on the number of PM peak hour vehicular trips that a project would add to the interchange. Note that the signalized intersections of Oakland Road/US 101 (S), Oakland Road/US 101 (N), Oakland Road/Commercial Street, Mabury Road/US 101 (E), and Mabury Road/US 101 (W) make up the "Policy Interchange Intersections". However, the proposed project is not projected to add any trips to the Policy Interchange Intersections during the PM peak hour and thus will not be required to pay the US 101/Oakland/Mabury TDP TIF.

## **Intersection Queuing Analysis**

The analysis of intersection operations was supplemented with a vehicle queuing analysis at intersections where the project would add a substantial number of trips to the left-turn movements. The queuing analysis is presented for informational purposes only since the City of San Jose has not defined a policy related to queuing. Vehicle queues were estimated using a Poisson probability distribution, which estimates the probability of "n" vehicles for a vehicle movement using the following formula:

 $P(x=n) = \frac{\lambda^n e^{-(\lambda)}}{n!}$ 

Where:

P (x=n) = probability of "n" vehicles in queue per lane

n = number of vehicles in the queue per lane

 $\lambda$  = average # of vehicles in the queue per lane (vehicles per hour per lane/signal cycles per hour)

The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95<sup>th</sup> percentile maximum number of queued vehicles for a particular left-turn movement; (2) the estimated maximum number of vehicles in the queue is translated into a queue length, assuming 25 feet per vehicle; and (3) the estimated maximum queue length is compared to the existing or planned available storage capacity for the left-turn movement. This analysis thus provides a basis for estimating future turn pocket storage requirements at intersections.



For signalized intersections, the 95<sup>th</sup> percentile queue length value indicates that during the peak hour, a queue of this length or less would occur on 95 percent of the signal cycles. Or, a queue length larger than the 95<sup>th</sup> percentile queue would only occur on 5 percent of the signal cycles (about 3 cycles during the peak hour for a signal with a 60-second cycle length). Thus, turn pocket storage designs based on the 95<sup>th</sup> percentile queue length would ensure that storage space would be exceeded only 5 percent of the time for a signalized movement. Vehicle queuing at unsignalized intersections is evaluated based on the delay experienced at the specific study turn movement.

The vehicle queue estimates and a tabulated summary of the findings are provided in Table 8. The queue length calculations are included in Appendix F.

## Trade Zone Boulevard and Montague Expressway

#### Northbound Left-Turn

The queuing analysis indicates that the projected 95<sup>th</sup> percentile vehicle queues for the northbound leftturn pockets at the Trade Zone Boulevard and Montague Expressway intersection currently and are projected to exceed the existing vehicle storage capacity during both the AM and PM peak hours under background plus project conditions.

The northbound left-turn pockets currently provide approximately 500 feet per lane of vehicle storage, which can accommodate approximately 20 vehicles per lane. The estimated 95<sup>th</sup> percentile vehicle queues for the northbound left-turn movement are projected to be approximately 23 and 22 vehicles during the AM and PM peak hours under background conditions, respectively.

The addition of project traffic is not projected to lengthen the projected queues during the PM peak hour. However, the addition of project traffic is projected to lengthen the estimated 95<sup>th</sup> percentile vehicle queues by one vehicle during the AM peak hour under background plus project conditions.

The northbound left-turn pocket cannot be extended since the turn pockets already extend the full length between Montague Expressway and Ringwood Avenue. The queues that would exceed the current vehicle storage would be required to wait at the adjacent signalized Ringwood Avenue/Trade Zone Boulevard intersection. The signal coordination between the Ringwood Avenue/Trade Zone Boulevard and Trade Zone Boulevard/Montague Expressway intersections could be improved to reduce the queues along Trade Zone Boulevard. This improvement would require coordination between the County and the Cities of San Jose/Milpitas.

#### Westbound Left-Turn

The queuing analysis indicates that the projected 95<sup>th</sup> percentile vehicle queue for the westbound leftturn pocket at Trade Zone Boulevard and Montague Expressway intersection currently and are projected to exceed the existing vehicle storage capacity during the PM peak hour under background plus project conditions.

The westbound left-turn pocket currently provides approximately 250 feet of vehicle storage, which can accommodate approximately 10 vehicles. The estimated 95<sup>th</sup> percentile vehicle queue for the westbound left-turn movement is projected to be approximately 18 vehicles during the PM peak hour under background conditions.

However, the addition of project traffic is not projected to lengthen the projected westbound left-turn queue during the PM peak hour under background plus project conditions. Therefore, the project would not be required to improve the westbound left-turn deficiency.



## Table 8Queuing Analysis Summary

	Trade Zone	Boulevard and	Montague	Expressway	Lundy	Avenue and	llevard	Capitol Avenue and Trade Zone Boulevard			
•	Northbo	und Left	Westb	ound Left	Eastbo	und Left	Westbou	Ind Left	Northbound Left		
Measurement	AM	PM	AM	PM	AM	PM	AM	РМ	AM	РМ	
Existing Conditions											
Cycle Length (sec)	180	189	180	189	116	116	116	116	144	128	
Lanes	3	3	1	1	1	1	1	1	2	2	
Volume (vph)	926	778	66	212	11	9	760	225	893	155	
Volume (vphpl)	309	259	66	212	11	9	760	225	447	78	
95 <sup>th</sup> %. Queue (veh/ln.)	22	20	7	17	1	1	33	12	25	6	
95 <sup>th</sup> %. Queue (ft./ln) <sup>1</sup>	550	500	175	425	25	25	825	300	625	150	
Storage (ft./ In.)	500	500	250	250	100	100	275	275	825	825	
Adequate (Y/N)	NO	YES	YES	NO	YES	YES	NO	NO	YES	YES	
Background Condition	s										
Cycle Length (sec)	180	189	180	189	116	116	116	116	144	128	
Lanes	3	3	1	1	1	1	1	1	2	2	
Volume (vph)	984	886	80	227	21	11	770	259	922	171	
Volume (vphpl )	328	295	80	227	21	11	770	259	461	86	
95 <sup>th</sup> %. Queue (veh/ln.)	23	22	8	18	2	1	33	13	26	6	
95 <sup>th</sup> %. Queue (ft./ln) <sup>1</sup>	575	550	200	450	50	25	825	325	650	150	
Storage (ft./ In.)	500	500	250	250	100	100	275	275	825	825	
Adequate (Y/N)	NO	NO	YES	NO	YES	YES	NO	NO	YES	YES	
Background Plus Proje	ect Condition	s									
Cycle Length (sec)	180	189	180	189	116	116	116	116	144	128	
Lanes	3	3	1	1	1	1	1	1	2	2	
Volume (vph)	1007	897	91	232	34	35	790	268	933	175	
Volume (vphpl)	336	299	91	232	34	35	790	268	467	88	
95 <sup>th</sup> %. Queue (veh/ln.)	24	22	8	18	3	3	34	14	26	6	
95 <sup>th</sup> %. Queue (ft./ln) <sup>1</sup>	600	550	200	450	75	75	850	350	650	150	
Storage (ft./ ln.)	500	500	250	250	100	100	275	275	825	825	
Adequate (Y/N)	NO	NO	YES	NO	YES	YES	NO	NO	YES	YES	
Notes:											
Assumes 25 feet per ve	hicle queued										

## Lundy Avenue and Trade Zone Boulevard

## Westbound Left-Turn

The queuing analysis indicates that the projected 95<sup>th</sup> vehicle queues for the westbound left-turn pocket at the Lundy Avenue and Trade Zone Boulevard intersection currently and are projected to exceed the existing vehicle storage capacity during both the AM and PM peak hours under background plus project conditions.

The westbound left-turn pocket currently provides approximately 275 feet of vehicle storage, which can accommodate approximately 11 vehicles. The estimated 95<sup>th</sup> percentile vehicle queues for the westbound left-turn movement are projected to be approximately 33 and 13 vehicles during the AM and PM peak hours under background conditions, respectively. The addition of project traffic is projected to lengthen the estimated 95<sup>th</sup> percentile vehicle queue by one vehicle during both the AM and PM peak hours under background plus project conditions.

Possible improvements for this left-turn pocket would include the addition of a second westbound leftturn lane and providing 425 feet of storage capacity per left-turn lane. However, this improvement would require the removal of the existing bike lanes due to the right-of-way constraint on Trade Zone Boulevard.

Possible improvements for this left-turn pocket would also include the closure of the mid-block intersection on Trade Zone Boulevard just east of Lundy Avenue and the extension of the westbound left-turn pocket to provide 850 feet of vehicle storage capacity.

## **Signal Warrant Analysis**

The need for signalization of an unsignalized intersection is assessed based on the Peak Hour Volume Warrant (Warrant 3) described in the *California Manual on Uniform Traffic Control Devices for Streets and Highways (CA MUTCD)*, Part 4, Highway Traffic Signals, 2014. This method makes no evaluation of intersection level of service, but simply provides an indication of whether vehicular peak hour traffic volumes are, or would be, sufficient to justify the installation of a traffic signal. Intersections that meet the peak hour warrant are subject to further analysis before determining that a traffic signal is necessary. Additional analysis may include unsignalized level of service analysis and/or operational analysis such as evaluating vehicle queuing and delay. Other options such as traffic control devices, signage, or geometric changes may be preferable based on existing field conditions.

Peak-hour traffic signal warrant checks were conducted for the Ringwood Avenue/Fortune Drive unsignalized study intersection. The results indicate that the projected traffic volumes at the Ringwood Avenue/Fortune Drive unsignalized study intersection would fall below the thresholds that warrant signalization during both the AM and PM peak hours under all study scenarios. The traffic signal warrant calculations are included in Appendix G.

## Site Access and On-Site Circulation

A review of the project site plan was performed to determine if adequate site access and on-site circulation would be provided and to identify any access or circulation issues that should be improved. The evaluation of site access and circulation is based on the site plan prepared by Corgan in June 2022. Site access was evaluated to determine the adequacy of the site's access points with regard to the following: traffic volume, delays, vehicle queues, geometric design, and corner sight distance. On-site vehicular circulation was reviewed in accordance with generally accepted traffic engineering standards and transportation planning principles.



## Site Access

Vehicular access to the project site's parking garage will be provided via a right-in-only driveway along Trade Zone Boulevard. Egress from the parking garage will be provided via a right-out only driveway along Trade Zone Boulevard. The right-out only driveway along Trade Zone Boulevard also will provide ingress and egress from a PG&E substation and its access gates. Two additional driveways – one along Ringwood Avenue and the other along Fortune Drive – would serve as entrance and exit for trucks only. All site access and exit points will be secured.

As proposed, vehicular traffic accessing the project site from westbound Trade Zone Boulevard would need to take a somewhat circuitous route by using Lundy Avenue to Fortune Drive to Ringwood Avenue to Trade Zone Boulevard to access the right-in-only western driveway because U-turns are not allowed from the westbound left-turn lane at the Ringwood Avenue/Trade Zone Boulevard intersection. An estimated 20 peak hour project trips are projected to originate from westbound Trade Zone Boulevard and be required to utilize alternative routes to access the parking garage access point on Trade Zone Boulevard. Additionally, vehicles exiting the site and bound for Montague Expressway would need to turn right onto Trade Zone Boulevard and then make a U-turn at the Lundy Avenue/Trade Zone Boulevard intersection or take the circuitous route described above and turn left at Trade Zone Boulevard.

The circuitous inbound route from the westbound direction on Trade Zone Boulevard could be avoided by switching the locations of the right-in-only driveway with the right-out-only driveway along Trade Zone Boulevard to allow inbound traffic from westbound Trade Zone Boulevard to use the existing leftturn pocket to enter the site. However, maintaining the existing left- turn access from Trade Zone Boulevard would limit potential storage capacity expansion for the westbound left-turn movement to Ringwood Avenue from Trade Zone Boulevard.

Alternatively, the driveway along Ringwood Avenue that is proposed to be restricted to trucks only could be adjusted to allow for vehicular access. The use of the Ringwood Avenue driveway would require adjustments to on-site circulation and possibly redesign of the parking garage access points. However, the use of the Ringwood Avenue driveway would result in a mixture of vehicular and truck traffic at the access point and within the project site. As designed, the site provides for a separation of truck and vehicular traffic for improved safety and security.

Given the complications described above and minimal number of vehicular trips that would be affected by the limited access, no adjustment of the proposed access points are recommended.

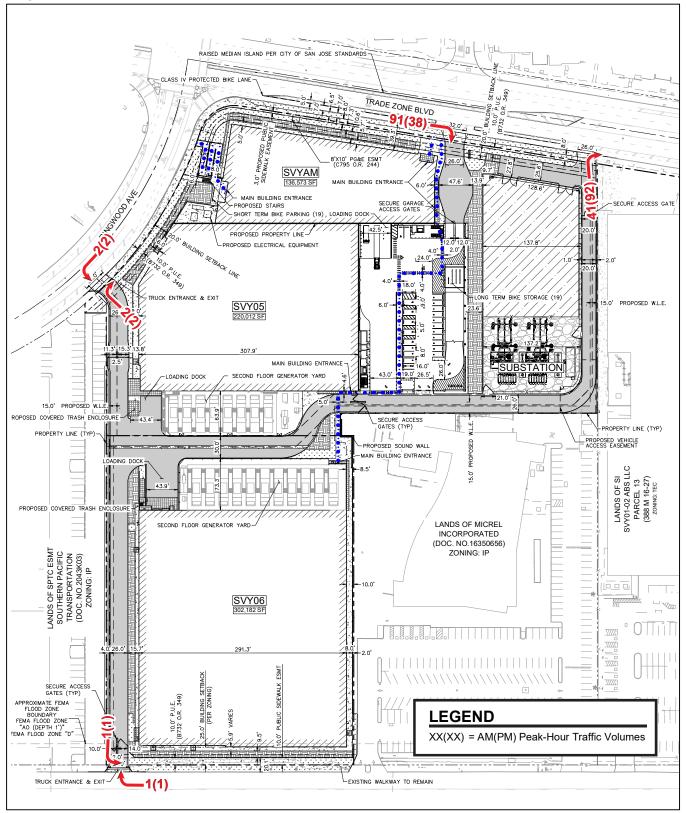
According to the City of San Jose Department of Transportation (DOT) Geometric Design Guidelines, the typical widths for a one-way driveway and a two-way driveway serving an industrial development are 16 and 32 feet wide, respectively. This provides adequate width for vehicular ingress and egress and a reasonably short crossing distance for pedestrians. The right-in-only and right-out-only driveways along Trade Zone Boulevard are shown to be 26 feet wide on the site plan and would meet the City's requirements. The two proposed two-way driveways along Ringwood Avenue and Fortune Drive are shown to be 32 feet wide on the site plan and would meet the City's requirements.

#### Traffic Operations at Project Driveways

As shown in Figure 20, a maximum of 91 vehicles would enter the site at the right-in-only driveway along Trade Zone Boulevard during the AM peak hour and 92 vehicles would exit the site during the PM peak at the right-out-only driveway along Trade Zone Boulevard. The driveways along Ringwood Avenue and Fortune Drive would be used only by trucks.



## Figure 20 Project Trips at Site Access Points



Left-turns out of the right-out-only driveway along Trade Zone Boulevard would not be allowed due to the close spacing with the westbound left-turn pocket at the Ringwood Avenue/Trade Zone Boulevard intersection. The proposed mitigation for the project's VMT impact would include the construction of a raised median island for the existing left-turn pockets along the westbound direction on Trade Zone Boulevard at Ringwood Avenue and the project's exit driveway to improve pedestrian safety and access. The new median island should be constructed to extend past the project's exit driveway to prohibit left-turns from the project driveway.

Due to the relatively low number of project-generated trips at the driveways along Ringwood Avenue and Fortune Drive and right-turn-only restrictions for the driveways along Trade Zone Boulevard, significant operational issues related to vehicle queuing/stacking and/or vehicle delay are not expected to occur at any of the project driveways. Field observations indicate that there was no vehicle queuing issues for the left-turn and right-turn inbound traffic at the driveway during the AM and PM peak hours.

<u>**Recommendation**</u>: Ingress and egress from the PG&E substation gates will be provided via the rightturn only exit driveway along Trade Zone Boulevard. Signage noting ingress for substation vehicles only (no vehicular access) should be placed at the right-turn out driveway. The infrequent use of the substation access points will have minimal effect on driveway operations.

**<u>Recommendation</u>**: The new median island along Trade Zone Boulevard should be constructed to extend past the project's exit driveway to prohibit left-turns from the project driveway. The median must be constructed to be consistent with the City's Trade Zone Boulevard improvement planline.

## Sight Distance at Unsignalized Project Driveways

Adequate sight distance (sight distance triangles) in accordance with the *American Association of State Highway Transportation Officials* (AASHTO) standards should be provided at the unsignalized site driveways (right-out-only driveway along Trade Zone Boulevard and the two driveways serving only trucks along Ringwood Avenue and Fortune Drive). Sight distance triangles should be measured approximately 10 feet back from the traveled way. Providing the appropriate sight distance reduces the likelihood of a collision at a driveway or intersection and provides drivers with the ability to exit a driveway and locate sufficient gaps in traffic.

The minimum acceptable sight distance is often considered the AASHTO stopping sight distance. Sight distance requirements vary depending on the roadway speeds. Fortune Drive and Trade Zone Boulevard/Ringwood Avenue have posted speed limits of 35 and 40 miles per hour (mph), respectively. The AASHTO stopping sight distance for facilities with posted speed limits of 35 and 40 mph is 250 and 305 feet, respectively. Thus, a driver exiting/entering the proposed project driveways on Fortune Drive and Trade Zone Boulevard/Ringwood Avenue must be able to see 250 and 305 feet in the direction with the conflicting movements, respectively. Trade Zone Boulevard and Ringwood Avenue currently prohibit any on-street parking along the project frontages.

Currently, Fortune Drive allows on-street parking on both sides of the streets from 6 AM to 10 PM (no overnight parking) in the project vicinity with the exception of the locations with red curbs including the proposed project driveway.

Based on the site plans and field observations, drivers exiting the project driveways along Fortune Drive and Trade Zone Boulevard/Ringwood Avenue would be able to see more than 250 and 305 feet in the direction of the conflicting movements, respectively. Therefore, adequate stopping sight distances would be provided at these three project driveways.

**<u>Recommendation</u>**: The project driveways along Fortune Drive and Trade Zone Boulevard/Ringwood Avenue should be free and clear of obstructions to ensure a minimum clear sight distance of 250 and



305 feet along Fortune Drive and Trade Zone Boulevard/Ringwood Avenue, respectively. The red curbs at the proposed driveway along Fortune Drive must be maintained or re-implemented.

## **On-Site Circulation**

On-site vehicular circulation was reviewed in accordance with the City of San Jose Zoning Code and generally accepted traffic engineering standards.

Upon entering the site via the right-in-only driveway along Trade Zone Boulevard, vehicles will proceed straight to enter the parking garage and turn left at the end of the drive aisle to access the ramp to the upper four levels of the garage. There would be no dead-end aisles within the garage. Vehicles would circulate continuously in a counterclockwise direction on levels 2-5 to find parking and in a clockwise direction to exit. The drive aisles on levels 2-5 would be in one direction, and the ramps would serve both directions of traffic. On level 1, inbound vehicles turning left to access the upper parking levels would have conflicts with outbound vehicles turning left to exit the parking garage. The parking garage circulation is shown in Figure 21.

An internal roadway would bisect the site and run along the western and eastern project's boundaries connecting the driveways along Ringwood Avenue, Fortune Drive, and the right-out-only driveway along Trade Zone Boulevard. The segment of this internal roadway west of the parking garage would mainly be used by trucks accessing the loading docks at each of the three buildings. The segment east of the parking garage would be used by vehicles exiting the parking garage. To provide adequate on-site circulation for all vehicle types, including larger emergency vehicles and garbage trucks, the design of all internal roadways should adhere to the City of San Jose design standards and guidelines. The design of the site must include adequate corner radii along all internal roadways/drive aisles, as well as driveway width, drive aisle width, parking dimensions, and signage that satisfies the City of San Jose design standards.

The dimensions of the drive aisles and the slopes of the ramps within the parking garage are not shown on the site plan. Minimum widths of 16 and 26 feet are typically required for one- and two-way roadways, respectively. All internal roadways are shown on the site plan to be at least 16 feet wide for one-way segments and 26 feet wide for two-way segments and would meet the City's requirements for minimum widths.

The project would provide 90-degree parking stalls within the parking garages. Appropriate visible and/or audible warning signs should be provided at the parking garage access points to alert pedestrians and bicyclists of vehicles exiting the garage.

<u>**Recommendation**</u>: The design of the site must include adequate corner radii along all internal roadways/drive aisles, as well as driveway width, drive aisle width, parking dimensions, and signage that satisfies the City of San Jose design standards.

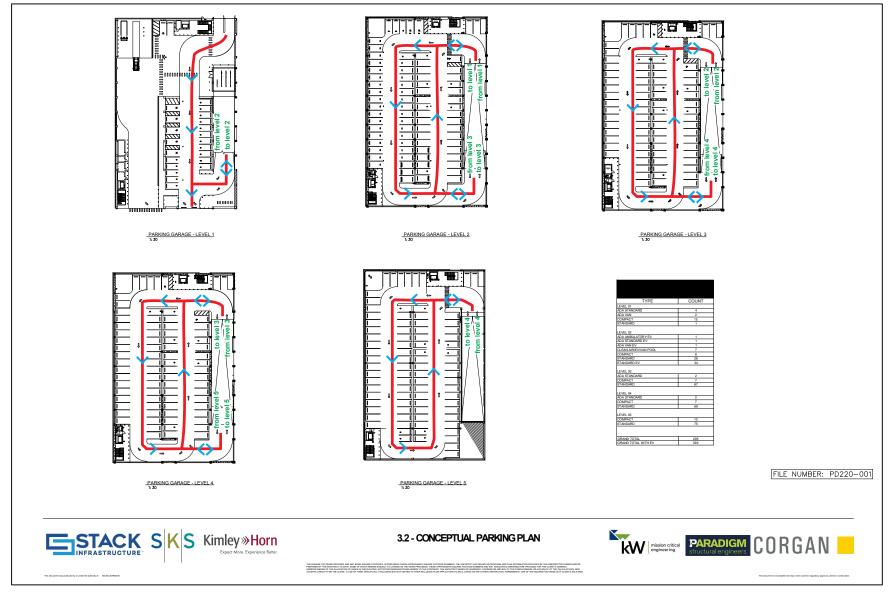
**<u>Recommendation</u>**: The drive aisles with 90-degree parking stalls within the parking garage would need to be at least 20 feet wide for one-way operations and 26 feet wide for two-way operations.

**<u>Recommendation</u>**: All-way stop controls would need to be implemented at the location on level 1 of the parking garage with conflicting traffic between vehicles entering and exiting the upper levels of the parking garage.

**<u>Recommendation</u>**: Typical engineering standards require garage ramps to have no greater than a 20 percent grade, and slopes over 10% require transition slopes so that vehicles do not "bottom out".



Figure 21 Parking Garage Circulation





## Garage Gate Operations

Based on the project trip assignment, the garage entry gate located at the right-in-only driveway along Trade Zone Boulevard would have the greatest inbound demand of 91 vehicles during the AM peak hour or approximately 2 vehicles per minute on average.

The flow rate at which vehicles enter the garage during the peak hours will depend primarily on the processing ability, or service rate, of the entry gates. The project site plans do not specify the type of gate that the parking garage will utilize. However, based on previous parking design information, parking garage entry gates that utilize a transponder-style device are capable of servicing between 600 to 800 vehicles per hour or up to 13 vehicles per minute. Standard card readers or ticket machines have service rates of much less at approximately 4 to 6 vehicles per minute. Thus, the use of either the standard card reader operations or transponder devices will provide sufficient service rates to serve the projected demand at each entry gate. However, the projected flow rate at each of the project entries presumes an evenly distributed arrival rate. It is unlikely that inbound project traffic would be spread out evenly throughout the peak hour. There would likely be instances where multiple vehicles (two to three vehicles for example) would arrive at the same time in which case short queues could form at the entry gate. However, the short queue could be accommodated because the garage gate would be located approximately 100 feet from Trade Zone Boulevard, which would provide storage for approximately four vehicles.

## **Truck and Emergency Vehicle Access**

The site plan shows that truck loading spaces are proposed to be provided at each of the three buildings on site. The proposed driveways along Ringwood Avenue and Fortune Drive will enable larger vehicles, such as garbage trucks, emergency vehicles, and delivery trucks, to access the site. However, trucks and emergency vehicles will not enter the parking garages or be able to use the driveways along Trade Zone Boulevard. A trash enclosure is proposed within the loading dock of the building along Fortune Drive, thus, the garbage truck would be able to pull into the loading dock for trash pickup. Left-turn pockets providing inbound and outbound access to/from the project site must be designed to accommodate the wider turn radii required for larger vehicles.

## Truck Turning Templates for Loading Docks

Truck turning templates were completed for the three loading docks located along the internal roadway and the driveways serving as truck entrance and exit only along Ringwood Avenue and Fortune Drive.

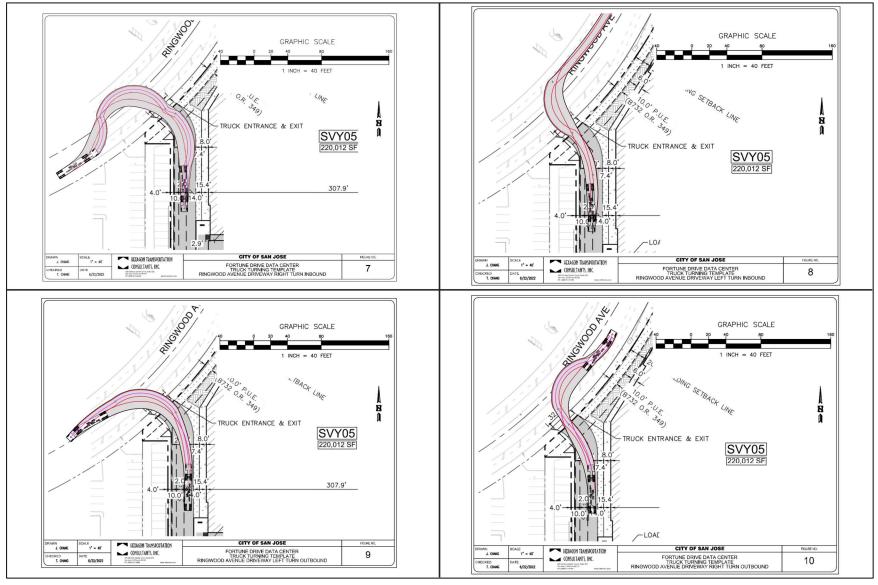
As shown in Figure 22, WB-50 trucks representing the largest semi-trailer trucks accessing the site would be able to pull into and out of the loading docks and the project driveways along Ringwood Avenue and Fortune Drive without any issues. However, the gate at the driveway along Fortune Drive is shown to be located approximately 30 feet from the curb and will not provide sufficient storage for trucks turning into this driveway. Thus, the gate will need to be relocated approximately 150 feet back from the face of the curb to allow the trucks to turn into the site. Loading dock operations are expected to occur during the off-peak hours to minimize the conflict with peak-hour trips entering and exiting the site.

**<u>Recommendation</u>**: All curb returns along the on-site roadways should be a minimum of 30 feet to accommodate service and emergency (such as a garbage truck or fire truck) vehicle circulation.

**<u>Recommendation</u>**: The gate at Fortune Drive will need to be relocated approximately 150 feet from the face of the curb to allow trucks to turn into the site.



## Figure 22 Truck Turning Templates





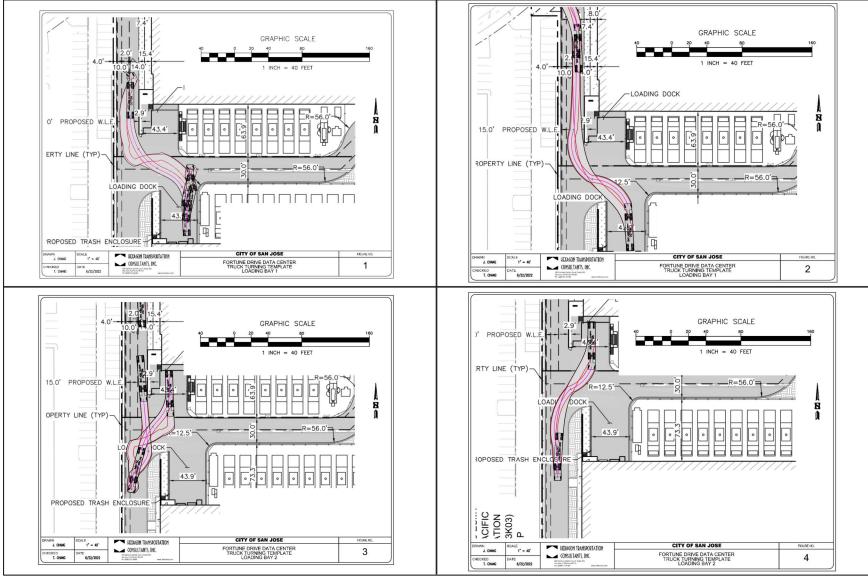
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#### BACK 4.0, 26.0, 15 ACCESS GRAPHIC SCALE GRAPHIC SCALE (TYP) 10.0' P.U.E. (B732 O.R. 349) Δ 1 INCH = 40 FEET 1 INCH = 40 FEET SECURE ACCESS GATES (TYP) APPROXIMATE FEMA FLOOD ZONE 'D" BUILDIN (PER ZC BOUNDARY FEMA FLOOD ZONE . P.L 10.0' 0.0' B "AO (DEPTH 1')" 8 FEMA FLOOD ZONE "D" Û 10.0 RANCE & EXIT TRUCK ENTRANCE & EXIT Mile SO AMERIC BOA (MD) CITY OF SAN JOSE FIGURE N HEXAGON TRANSPORTATION CITY OF SAN JOSE J. CHANC 1" = 40' HEXAGON TRANSPORTATION ALE 1" = 40" FORTUNE DRIVE DATA CENTER TRUCK TURNING TEMPLATE FORTUNE DRIVE DRIVEWAY LEFT TURN INBOUND CONSULTANTS, INC. 11 J. CHANG FORTUNE DRIVE DATA CENTER TRUCK TURNING TEMPLATE FORTUNE DRIVE DRIVEWAY LEFT TURN OUTBOUND CONSULTANTS, INC. KED T. CHANG 12 s/22/2022 T. CHANG 6/22/2022 120 Century Center San Josep, California GRAPHIC SCALE GRAPHIC SCALE SECURE ACCESS SECURE ACCESS SATES (TYP) GATES (TYP) E FEMA 1 INCH = 40 FEETINCH = 40 FEET Щ M APPROXIMATE FEMA P.U. FLOOD ZONE BOUNDARY FEMA FLOOD ZONE D ZONE 10.0° UB 0 0 H 1')' "AO (DEPTH 1')" ZONE "D" FEMA FLOOD ZONE "D" B B 10.0' n 10.0' Û K ENTRANCE & EXIT ALL CHARTER CHART TRUCK ENTRANCE & EXI A DE AND DE AND 1 T 1 1 CITY OF SAN JOSE HEYAGON TRANSPORTATION J. CHWNG 1" - 40" CITY OF SAN JOSE FORTUNE DRIVE DATA CENTER TRUCK TURNING TEMPLATE FORTUNE DRIVE DRIVEWAY RIGHT TURN INBOUND HEXAGON TRANSPORTATION CONSULTANTS, INC. 1" = 40' CONSULTANTS, INC. 13 J. CHANG FORTUNE DRIVE DATA CENTER TRUCK TURNING TEMPLATE FORTUNE DRIVE DRIVEWAY RIGHT TURN OUTBOUND T. CHANG 6/22/2022 Mil Century Gener Gaues, San July, California W107 Ph. (4001175-6404 14 CKED T. CHANG ATE 6/22/2022 Kill Centura Genter Sourt, 5 San Jew, Colfornia 95112 Htt (JODET-7)-6-W0

## Figure 22 (Continued) Truck Turning Templates



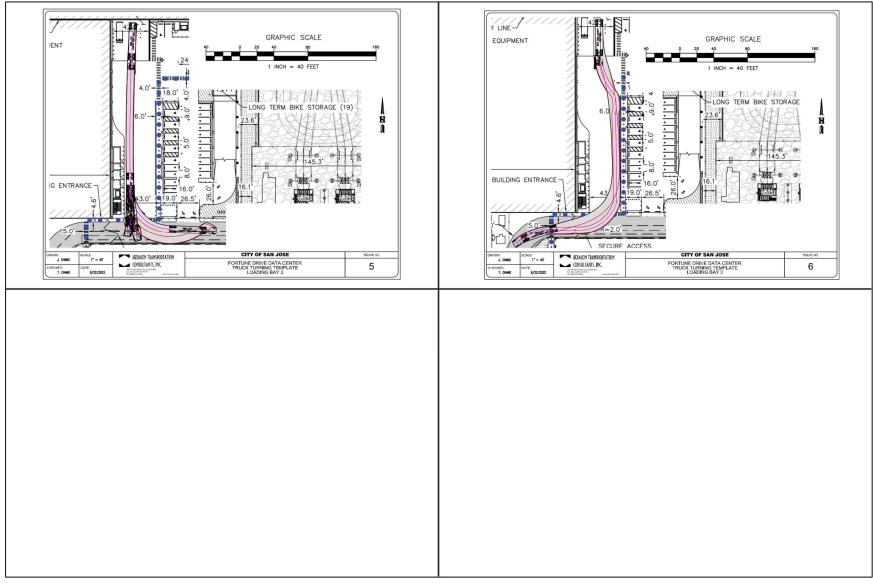




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## Figure 22 (Continued) Truck Turning Templates





## **Parking Supply**

The City of San Jose Zoning Code (Section 20.90.060) states that the proposed data center use is required to provide one off-street parking space per 250 s.f. of floor area for office space and one off-street parking space per 5,000 s.f. of floor area devoted to data center use. Additionally, the proposed manufacturing use is required to provide one off-street parking space per 350 s.f. of floor area and one off-street parking space per company vehicle. As shown in Table 9, the project is required to provide a total of 497 parking spaces based on the City's parking requirement. The project is proposing to provide a total of 339 parking spaces on-site, which would be 158 spaces less than, or a reduction of 32%, the City's requirement of 497 parking spaces.

#### Table 9 Required Parking

			Тс	otal (s.f.)				
	Proposed	Gross Bldg.		Data		City's Parking	Parking	g Spaces
Building	Use	sf.	Office /a/	Hall /a/	Manufacturing /b/	Rate	Required	Proposed
SVYAM	Manufacturing	136,573			116,087	/c/	337	239
SVY05	Data Center	220,012	14,489	94,241		/d/	77	42
SVY06	Data Center	302,182	13,475	141,810		/d/	83	58
	Total	658,767	27,964	236,051	116,087	Total =	497	339
		, -	,	,	- ,		-	

Notes

/a/ Space devoted to computer equipment space (data hall), office space, and the number of company vehicles were provided by the applicant.

/b/ According to the City's Zoning Code, "floor area" is defined as 85 percent of the "total gross floor area" of the building.

/c/ 1 space per 350 s.f. of floor area + 1 space per company vehicle

/d/ 1 space per 250 s.f. of office/meeting/technician space + 1 space per 5,000 s.f. of floor area devoted to computer equipment space

In accordance with Sections 20.70.330 and 20.90.220 of the San Jose Code of Ordinances, which allows up to a 50% parking reduction, the 32 percent reduction could be allowed with the implementation and maintenance of a TDM plan. A separate TDM plan is provided in Appendix H. The TDM plan must be approved by the City of San Jose Planning Department to support a reduction in the required off-street parking.

Per the 2016 California Building Code (CBC) Table 11B-208.2, projects providing 301 and 400 spaces are required to provide eight ADA parking spaces. Additionally, the requirement also states that for every six or a fraction of six required ADA parking spaces, at least one shall be a van-accessible parking space. Therefore, the project is required to provide eight ADA parking spaces, including two ADA van-accessible parking spaces to comply with ADA requirements. The project is proposing to provide eight ADA parking spaces including two van-accessible parking spaces and would meet ADA's parking requirements.

## **Bicycle Parking**

According to the City's Bicycle Parking Standards (Chapter 20.90, Table 20-190), the project is required to provide one bicycle parking space per 5,000 s.f. of floor area of office or manufacturing space and one bicycle parking space per 50,000 s.f. of floor area devoted to computer equipment space.

Based on the City's bicycle parking requirements and the total gross floor areas as calculated above in the vehicle parking section for each use, the project is required to provide 5, 6, and 23 bicycle parking spaces for the proposed data center, office, and manufacturing space, respectively, for a total of 34 bicycle parking spaces. Of the required bicycle parking, City standards require that 80 percent be short-term bicycle spaces and 20 percent be secured long-term bicycle spaces. This equates to 27 short-term bicycle parking spaces and 7 long-term bicycle parking spaces.



The project proposes a total of 38 bicycle parking spaces, consisting of 19 long-term spaces within the parking garage and 19 short-term spaces at the building entrance along Ringwood Avenue. Therefore,

the proposed bicycle parking spaces will exceed the City's bicycle parking requirements and encourage the use of non-auto modes of travel and minimize the demand for on-site parking described above. However, 8 of the 19 long-term bicycle parking spaces will need to be converted to short-term bicycle parking spaces to meet the City's requirements of 27 short-term bicycle parking spaces.

## **Construction Activities**

Typical activities related to the construction of any development could include lane narrowing and/or lane closures, sidewalk and pedestrian crosswalk closures, and bike lane closures. In the event of any type of closure, clear signage (e.g., closure and detour signs) must be provided to ensure vehicles, pedestrians and bicyclists are able to adequately reach their intended destinations safely. Per City standard practice, the project would be required to submit a construction management plan for City approval that addresses the construction schedule, street closures and/or detours, construction staging areas and parking, and the planned truck routes.

## Pedestrian, Bicycle, and Transit Analysis

All new development projects in San Jose should encourage multi-modal travel, consistent with the goals of the City's General Plan. It is the goal of the General Plan that all development projects accommodate and encourage the use of non-automobile transportation modes to achieve San Jose's mobility goals and reduce vehicle trip generation and vehicle miles traveled. In addition, the adopted City Bike Master Plan establishes goals, policies, and actions to make bicycling a daily part of life in San Jose. The Master Plan includes designated bike lanes along all City streets, as well as on designated bike corridors. In order to further the goals of the City, pedestrian and bicycle facilities should be encouraged with new development projects.

The Envision 2040 General Plan identifies goals and policies that are dedicated to the enhancement of the transportation infrastructure, including public transit and pedestrian/bike facilities. The Transportation Policies contained in the General Plan create incentives for non-auto modes of travel while reducing the use of single-occupant automobile travel as generally described below:

- Through the entitlement process for new development, funds are needed for transportation improvements for all transportation modes, giving first consideration to the improvement of bicycling walking, and transit facilities.
- Give priority to the funding of multimodal projects to provide the most benefit to all users of the transportation system.
- Encourage the use of non-automobile travel modes to reduce vehicle miles traveled (VMT)
- Consider the impact on the overall transportation system when evaluating the impacts of new developments.
- Increase substantially the proportion of travel modes other than single-occupant vehicles.
- Provide a continuous pedestrian and bicycle system to enhance connectivity throughout the City by completing missing segments.
- Build pedestrian and bicycle improvements at the same time as improvements for vehicular circulation.
- Give priority to pedestrian improvement projects that improve pedestrian safety and improve pedestrian access to and within the Urban Villages and other growth areas.



The City's General Plan identifies both walk and bicycle commute mode split targets as 15 percent or more by the year 2040. This level of pedestrian and bicycle mode share is a reasonable goal for the project.

## **Pedestrian and Bicycle Facilities**

Pedestrian and bicycle facilities in the study area consist of sidewalks, crosswalks, pedestrian signals at signalized intersections, and bike lanes on Trade Zone Boulevard and Ringwood Avenue (see Chapter 2 for details).

The site plan shows pedestrian walkways (ADA paths of travel) connecting each of the building's main entrances with the existing sidewalks along the project frontages on Trade Zone Boulevard and Ringwood Avenue and destinations outside of the project site, including the bus stops on Trade Zone Boulevard.

The bikeways within the vicinity of the project site would remain unchanged under project conditions. Currently, Trade Zone Boulevard and Ringwood Avenue have bike lanes that would provide connections to other bicycle facilities in the project vicinity. The San Jose Better Bike Plan 2025 and Envision 2040 General Plan, as described below, identify planned improvements to the bicycle network within the City and provide policies and goals that are intended to promote and encourage the use of multi-modal travel options and reduce the identified project impacts to the roadway system.

#### Pedestrian and Bike Improvements

The planned improvements discussed below are intended to provide for a balanced transportation system as outlined in the Envision 2040 General Plan goals and policies. The San Jose Better Bike Plan 2025 indicates that a variety of bicycle facilities are planned in the study area, some of which would benefit the project and adhere to the goals of the Envision 2040 General Plan. Of the planned facilities, the following are relevant to the project.

#### Class III bike routes are planned for:

• Lundy Avenue/Trimble Road, north of Trade Zone Boulevard

#### Class IV protected bike lanes are planned for:

- Trade Zone Boulevard, along its entire length
- Ringwood Avenue, between Trade Zone Boulevard and Murphy Avenue
- Lundy Avenue, along its entire length
- Montague Expressway, west of Trade Zone Boulevard

The project would not impede the implementation of the planned bicycle facilities. However, the full implementation of the above-listed improvements is beyond the means of the proposed project given that they may require right-of-way from adjacent properties and benefit multiple properties. The project will however be required to provide a monetary contribution for an in-lieu fee of \$121 per linear foot to construct the Class IV 7-foot protected bike lanes along the project frontages on Trade Zone Boulevard and Ringwood Avenue per the City of San Jose Better Bike Plan 2025 and Trade Zone Boulevard and Ringwood Avenue improvement planline shown in Figure 12.

Additionally, the project would be required to implement the following pedestrian/bike improvements to mitigate its VMT impact:

• The project will be required to complete signal modifications at the Ringwood Avenue/Trade Zone Boulevard intersection that include striped bike lanes adjacent to all crosswalks and the installation of corner islands.



• The project will be required to remove the pork-chop islands or provide raised crosswalks at the southwest and southeast corners of the Ringwood Avenue/Trade Zone Boulevard intersection. These improvements will require signal modification and the coordination between the Cities of San Jose and Milpitas and VTA.

The Trade Zone Boulevard Planline identifies the improvement of Trade Zone Boulevard between Montague Expressway and Capitol Avenue to a complete street. Complete streets are roadways designed to safely accommodate many different users, including people who bike, people who walk, transit riders, motorists, and emergency vehicles. The planned streetscape design for Trade Zone Boulevard includes features of Complete Streets as defined in San José's General Plan and Complete Streets Design Guidelines. The Trade Zone Boulevard Planline identifies the following complete street improvements along Trade Zone Boulevard:

- Protected Class IV bike lanes along both sides of Trade Zone Boulevard. The bike lanes will be physically separated from vehicle travel lanes.
- A Complete Streets protected intersection design for the Trade Zone Boulevard/Ringwood Avenue intersection
- Construction of a raised median with limited breaks.

## **Transit Services**

The project site is served directly by VTA Frequent Bus Lines 60 and 77 and the ACE Violet Shuttle, which operates along Trade Zone Boulevard. A bus stop for these bus routes is located along the project frontage on Trade Zone Boulevard. With the convenient location of bus stops, it can be assumed that some employees of the proposed project would utilize the existing transit services. Applying an estimated three percent transit mode share, which is a conservative estimate that could be expected for the project, equates to approximately at most three new transit riders during either of the peak hours. VTA operations reports indicate that the bus routes above as well as several other bus routes in the area currently serve less than ideal ridership. Therefore, the new riders due to the proposed project could be accommodated by the current available capacity of the bus service in the study area and improvement of the existing transit service would not be necessary with the project.

#### Transit Facility Improvements

The bus stop located along the project frontage includes minimal amenities with only a sign. VTA's Better Bus Stops Program is an annual program that was implemented in 2020 to improve bus stop locations throughout its network. Improvements include the implementation of shelters, information signs, metal benches, metal trash cans, and solar lighting. The improved bus stops also aim to upgrade the boarding area with wider sidewalks to accommodate the amenities and concrete bus pads. The Better Bus Stop Program has established a list of potential locations for improvement based on ridership.

The bus stop along the project frontage is included in the improvement list with the implementation of solar lighting. The project would not interfere with the planned bus stop improvements. However, it is recommended that the project work with VTA to allow for adequate space along its frontages to accommodate the future improvement of the bus stop including wider sidewalks and a bus duck-out.

**Recommendation:** A VTA standard 8' x 40' boarding area and a VTA standard 7' x 25' shelter pad and a 13' full back ad shelter should be installed at the existing bus stop along the project frontage. The project should include in its design, a connection between the bus stop and the pedestrian pathway or the emergency vehicle access roadway into the plaza. The final design should be coordinated between the project and VTA.



# **Freeway Segment Evaluation**

Per the CMP technical guidelines, freeway segment level of service analysis shall be conducted in all segments to which the project is projected to add one percent or more to the segment capacity. The CMP specifies that a capacity of 2,300 vehicles per hour per lane (vphpl) be used for mixed-flow lane segments that are three lanes or wider in one direction, and a capacity of 2,200 vphpl be used for mixed-flow lane segments that are two lanes wide in one direction. A capacity of 1,650 vphpl was used for high occupancy vehicle (HOV) lanes.

Since the project is not projected to add one percent to any freeway segments in the area (see Table 10), a freeway analysis was not required per the CMP technical guidelines.



# Table 10Freeway Segment Capacity

						Сар	acity			Projec	ct Trips	
					Mixed-F	low Lane	HO\	/ Lane	Mixed-F	low Lane	HOV	Lane
#	Freeway	Segment	Direction	Peak Hour		Capacity (vph)	# of Lanes	Capacity (vph)	Volume (vph)	% of Capacity	Volume (vph)	% of Capacity
1	I-680	from Hostetter Road to Capitol Avenue	NB NB	AM PM	4 4	9,200 9,200			8 3	0.1 0.0		
2	I-680	from Capitol Avenue to Montague Expressway	NB NB	AM PM	4 4	9,200 9,200			0 0	0.0 0.0		
3	I-680	from Montague Expressway to Yosemite Drive	NB NB	AM PM	4 4	9,200 9,200			4 2	0.0 0.0		
4	I-680	from Yosemite Drive to Montague Expressway	SB SB	AM PM	4 4	9,200 9,200			5 2	0.1 0.0		
5	I-680	from Montague Expressway to Capitol Avenue	SB SB	AM PM	4 4	9,200 9,200			0 0	0.0 0.0		
6	I-680	from Capitol Avenue to Hostetter Road	SB SB	AM PM	4 4	9,200 9,200			5 3	0.1 0.0		
7	I-880	from East Brokaw Road to Montague Expressway	NB NB	AM PM	3 3	6,900 6,900	1 1	1,650 1,650	6 3	0.1 0.0	2 0	0.1 0.0
8	I-880	from Montague Expressway to Great Mall Parkway	NB NB	AM PM	3 3	6,900 6,900	1 1	1,650 1,650	4 3	0.1 0.0	1 0	0.1 0.0
9	I-880	from Great Mall Parkway to Montague Expressway	SB SB	AM PM	3 3	6,900 6,900	1 1	1,650 1,650	6 2	0.1 0.0	2 1	0.1 0.1
10	I-880	from Montague Expressway to East Brokaw Road	SB SB	AM PM	3 3	6,900 6,900	1 1	1,650 1,650	4 2	0.1 0.0	1 1	0.1 0.1



# 5. Conclusions

The transportation analysis of the project was evaluated following the standards and methodologies set forth in the City of San Jose's Transportation Analysis Policy (Council Policy 5-1), the City of San Jose *Transportation Analysis Handbook 2020*, the City of Milpitas guidelines, the Santa Clara Valley Transportation Authority (VTA) Congestion Management Program's *Transportation Impact Guidelines* (October 2014), and by the California Environmental Quality Act (CEQA). Per the requirements of the City of San Jose's Transportation Policy and *Transportation Analysis Handbook 2020*, the TA report for the project consists of a CEQA vehicle-miles-traveled (VMT) analysis and a supplemental Local Transportation Analysis (LTA).

# **CEQA VMT Analysis**

# **CEQA Transportation Analysis Exemption Criteria**

The City of San Jose Transportation Analysis Handbook identifies screening criteria that determine whether a CEQA transportation analysis would be required for development projects. The criteria are based on the type of project, characteristics, and/or location. If a project meets the City's screening criteria, the project is expected to result in less-than-significant VMT impacts and a detailed CEQA VMT analysis is not required.

The project site is located within the Berryessa/International Business Park (BIBP) planned growth area. However, the existing area VMT per employee of 15.08 is above the baseline VMT per employee threshold of 14.37. Therefore, a CEQA-level transportation analysis that evaluates the project's effects on VMT is required.

# **Project Impacts and Mitigation Measures**

**Project Impact:** Since the VMT generated by the project (15.07 per employee) would exceed the impact threshold of 14.37 VMT per employee, the project would result in a significant transportation impact on VMT, and mitigation measures are required to reduce the VMT impact. Per the *Transportation Analysis Handbook*, projects located in areas where the existing VMT is above the established threshold are referred to as being in "high-VMT areas", and projects in high-VMT areas are required to include a set of VMT reduction measures that would reduce the project VMT to the greatest extent possible. Based on preliminary direction from City staff, the project will be required to implement the following multi-modal facility improvements to reduce the project's VMT impact to less than significant levels.



- <u>Provide Pedestrian Network Improvements for Active Transportation (Tier 2):</u> Implement
  pedestrian improvements both on-site and in the surrounding area. Improving the pedestrian
  connections encourages people to walk instead of drive and reduces VMT. The project will be
  required to remove the pork-chop islands or provide raised crosswalks at the southwest and
  southeast corners of the Ringwood Avenue/Trade Zone Boulevard intersection. These
  improvements will require signal modification and the coordination between the Cities of San Jose
  and Milpitas and VTA. and
- <u>Provide Traffic Calming Measures (Tier 2)</u>: Implement pedestrian/bicycle safety and traffic calming measures both on-site and in the surrounding neighborhood. Providing traffic calming measures promotes walking and biking as an alternative to driving. The project will be required to construct a raised median island for the existing left-turn pockets along the westbound direction on Trade Zone Boulevard to improve pedestrian safety and access. These improvements will require coordination with the City of Milpitas and VTA.

The measures are consistent with the City's improvement planline at Trade Zone Boulevard and Ringwood Avenue. The implementation of Tier 2 measures described above would reduce the VMT generated by the project to 14.47 per employee, which is still more than the established threshold of 14.37 VMT per employee. The project's VMT could be reduced to 14.26 per employee with the implementation of the following Travel Demand Management (TDM) measure. It should be noted that the TDM measure may be incorporated within a TDM plan for the project which may include additional TDM measures.

• <u>Telecommuting and Alternative Work Schedules:</u> Encourage employees to telecommute from home when possible, or to shift work schedules such that travel occurs outside of peak congestion periods. This strategy reduces commute trips, thereby reducing VMT. At a minimum, the measure would require that 10% of employees work a 4/40 work week schedule (10-hour workdays for four days a week).

The applicant will need to work with the City to ensure the measures are feasible or identify other multimodal improvements and/or TDM measures deemed appropriate for the development plan and uses of the site. Therefore, the ultimate mitigation measures may differ from those identified below so long as the measures meet the required 4.7 percent reduction in VMT and are approved by City staff.

# **Cumulative (GP Consistency) Evaluation**

Projects must demonstrate consistency with the *Envision San José 2040 General Plan* to address cumulative impacts. Consistency with the City's General Plan is based on the project's density, design, and conformance to the General Plan goals and policies. If a project is determined to be inconsistent with the General Plan, a cumulative impact analysis is required per the City's *Transportation Analysis Handbook*.

According to the Envision San Jose 2040 General Plan, the project site is designated for *Transit Employment Center* uses. This designation is applied to areas planned for intensive job growth because of their importance as employment districts to the City and a high degree of access to transit and other facilities and services. This designation permits development with retail and service commercial uses on the first two floors; with office, research and development, or industrial use on upper floors; as well as wholly office, research and development, or industrial projects.

Since the *Transit Employment Center* designation allows industrial uses, the proposed industrial project is consistent with the Envision San Jose 2040 General Plan and would not require a General Plan Amendment (GPA). The project would be considered part of the cumulative solution to meet the General Plan's long-range transportation goals and would result in a less-than-significant cumulative impact.



# Local Transportation Analysis

The intersection operations analysis completed as part of the LTA is intended to quantify the operations of intersections and to identify potential negative effects due to the addition of project traffic. However, a potential adverse effect on a study intersection operation is not considered a CEQA impact metric. The LTA included the analysis of AM and PM peak-hour traffic conditions for 8 existing signalized intersections and one existing unsignalized intersections within the Cities of San Jose and Milpitas.

## **Trip Generation**

After applying the ITE trip rates, appropriate trip reductions, and existing site trip credits, it is estimated that the project would generate an additional 205 daily vehicle trips, with 90 trips (54 inbound and 36 outbound) occurring during the AM peak hour and 41 trips (21 inbound and 20 outbound) occurring during the PM peak hour.

## **Future Intersection Operation Conditions**

The results of the level of service analysis show that the added net trips as a result of the proposed project would not have an adverse effect on intersection operations under background plus project conditions during both the AM and PM peak hours at any of the study intersections based on the applicable guidelines.

## US-101/Oakland/Mabury Transportation Development

Any project that would add trips through the identified Policy Interchange Intersections is required to participate in the TDP program. The fee for the US 101/Oakland/Mabury TDP is based on the number of PM peak hour vehicular trips that a project would add to the interchange. Note that the signalized intersections of Oakland Road/US 101 (S), Oakland Road/US 101 (N), Oakland Road/Commercial Street, Mabury Road/US 101 (E), and Mabury Road/US 101 (W) make up the "Policy Interchange Intersections". However, the proposed project is not projected to add any trips to the Policy Interchange Intersections during the PM peak hour and thus will not be required to pay the US 101/Oakland/Mabury TDP TIF.

## **Recommended Site Access and On-Site Circulation Improvements**

The following improvements are recommended to improve access to the project site and on-site circulation:

- Ingress and egress from the PG&E substation gates will be provided via the right-turn only exit driveway along Trade Zone Boulevard. Signage noting ingress for substation vehicles only (no vehicular access) should be placed at the right-turn out driveway. The infrequent use of the substation access points will have minimal effect on driveway operations.
- The new median island along Trade Zone Boulevard should be constructed to extend past the project's exit driveway to prohibit left-turns from the project driveway.
- The project driveways along Fortune Drive and Trade Zone Boulevard/Ringwood Avenue should be free and clear of obstructions ensuring a minimum clear sight distance of 250 and 305 feet along Fortune Drive and Trade Zone Boulevard/Ringwood Avenue, respectively. The red curbs at the proposed driveway along Fortune Drive must be maintained or re-implemented.
- The design of the site must include adequate corner radii along all internal roadways/drive aisles, as well as driveway width, drive aisle width, parking dimensions, and signage that satisfies the City of San Jose design standards.
- The drive aisles with 90-degree parking stalls within the parking garage would need to be at least 20 feet wide for one-way operations and 26 feet wide for two-way operations.



- All-way stop controls would need to be implemented at the location on level 1 of the parking garage with conflicting traffic between vehicles entering and exiting the upper levels of the parking garage.
- Typical engineering standards require garage ramps to have no greater than a 20 percent grade, and slopes over 10% require transition slopes so that vehicles do not "bottom out".
- All curb returns along the on-site roadways should be a minimum of 30 feet to accommodate service and emergency (such as a garbage truck or fire truck) vehicle circulation.
- The gate at Fortune Drive will need to be relocated approximately 150 feet from the face of the curb to allow trucks to turn into the site.

# **Parking Supply**

## Vehicular Parking

The project is required to provide a total of 497 parking spaces based on the City's parking requirement. The project is proposing to provide a total of 339 parking spaces on-site, which would be 158 spaces less than, or a reduction of 32 percent, the City's requirement of 497 parking spaces.

In accordance with Sections 20.70.330 and 20.90.220 of the San Jose Code of Ordinances, which allows up to a 50% parking reduction, the 32 percent reduction could be allowed with the implementation and maintenance of a TDM plan. A separate TDM plan for the proposed project is provided in Appendix H. The TDM plan must be approved by the City of San Jose Planning Department to support a reduction in the required off-street parking.

## **Bicycle Parking**

Based on the City's bicycle parking requirements and the total gross floor areas as calculated above in the vehicle parking section for each use, the project is required to provide 5, 6, and 23 bicycle parking spaces for the proposed data center, office, and manufacturing space, respectively, for a total of 34 bicycle parking spaces. Of the required bicycle parking, City standards require that 80 percent be short-term bicycle spaces and 20 percent be secured long-term bicycle spaces. This equates to 27 short-term bicycle parking spaces and 7 long-term bicycle parking spaces.

The project proposes a total of 38 bicycle parking spaces, consisting of 19 long-term spaces within the parking garage and 19 short-term spaces at the building entrance along Ringwood Avenue. Therefore, the proposed bicycle parking spaces will exceed the City's bicycle parking requirements and encourage the use of non-auto modes of travel and minimize the demand for on-site parking described above. However, 8 of the 19 long-term bicycle parking spaces will need to be converted to short-term bicycle parking spaces to meet the City's requirements of 27 short-term bicycle parking spaces.

# Pedestrian, Bicycle, and Transit Facilities

All new development projects in San Jose should encourage multi-modal travel, consistent with the goals of the City's General Plan. It is the goal of the General Plan that all development projects accommodate and encourage the use of non-automobile transportation modes to achieve San Jose's mobility goals and reduce vehicle trip generation and vehicle miles traveled. In addition, the adopted City Bike Master Plan establishes goals, policies, and actions to make bicycling a daily part of life in San Jose. The Master Plan includes designated bike lanes along all City streets, as well as on designated bike corridors. In order to further the goals of the City, pedestrian and bicycle facilities should be encouraged with new development projects.

## Pedestrian and Bicycle Facilities

The site plan shows pedestrian walkways (ADA paths of travel) connecting each of the building's main entrances with the existing sidewalks along the project frontages on Trade Zone Boulevard and



Ringwood Avenue and destinations outside of the project site, including the bus stops on Trade Zone Boulevard.

The bikeways within the vicinity of the project site would remain unchanged under project conditions. Currently, Brokaw Road has bike lanes that would provide connections to other bicycle facilities in the project vicinity. The San Jose Better Bike Plan 2025 and Envision 2040 General Plan, as described below, identify planned improvements to the bicycle network within the City and provide policies and goals that are intended to promote and encourage the use of multi-modal travel options and reduce the identified project impacts to the roadway system.

### Pedestrian and Bike Improvements

The planned improvements discussed below are intended to provide for a balanced transportation system as outlined in the Envision 2040 General Plan goals and policies. The San Jose Better Bike Plan 2025 indicates that a variety of bicycle facilities are planned in the study area, some of which would benefit the project and adhere to the goals of the Envision 2040 General Plan. Of the planned facilities, the following are relevant to the project.

## Class III bike routes are planned for:

• Lundy Avenue/Trimble Road, north of Trade Zone Boulevard

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- Trade Zone Boulevard, along its entire length
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The project would not impede the implementation of the planned bicycle facilities. However, the full implementation of the above-listed improvements is beyond the means of the proposed project given that they may require right-of-way from adjacent properties and benefit multiple properties. The project will however be required to provide a monetary contribution for an in-lieu fee of \$121 per linear foot to construct the Class IV 7-foot protected bike lanes along the project frontages on Trade Zone Boulevard and Ringwood Avenue per the City of San Jose Better Bike Plan 2025 and Trade Zone Boulevard and Ringwood Avenue improvement planline.

Additionally, the project would be required to implement the following pedestrian/bike improvements to mitigate its VMT impact:

- The project will be required to complete signal modifications at the Ringwood Avenue/Trade Zone Boulevard intersection that include striped bike lanes adjacent to all crosswalks and the installation of corner islands.
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# **Transit Facilities**

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## **Transit Facility Improvements**

The bus stop located along the project frontage includes minimal amenities with only a sign. VTA's Better Bus Stops Program is an annual program that was implemented in 2020 to improve bus stop locations throughout its network. Improvements include the implementation of shelters, information signs, metal benches, metal trash cans, and solar lighting. The improved bus stops also aim to upgrade the boarding area with wider sidewalks to accommodate the amenities and concrete bus pads. The Better Bus Stop Program has established a list of potential locations for improvement based on ridership.

The bus stop along the project frontage is included in the improvement list with the implementation of solar lighting. The project would not interfere with the planned bus stop improvements. However, it is recommended that the project work with VTA to allow for adequate space along its frontages to accommodate the future improvement of the bus stop including wider sidewalks and a bus duck-out.

**Recommendation:** A VTA standard 8' x 40' boarding area and a VTA standard 7' x 25' shelter pad and a 13' full back ad shelter should be installed at the existing bus stop along the project frontage. The project should include in its design, a connection between the bus stop and the pedestrian pathway or the emergency vehicle access roadway into the plaza. The final design should be coordinated between the project and VTA.



# 1849 Fortune Drive and 2400 Ringwood Avenue Transportation Analysis

**Technical Appendices** 

November 9, 2022

# Appendix A San Jose VMT Evaluation Tool Output Sheet

# **VMT Analysis without Mitigations**

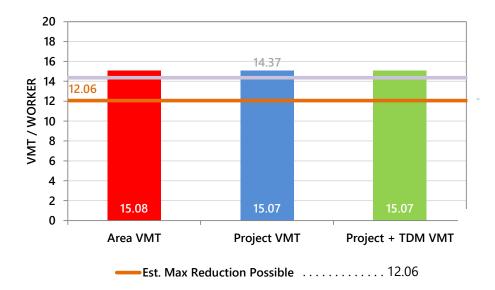
# CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

	ne Drive Data Center Ringwood Ave and 184	49 Fortune Drive	Tool Version: Date:	2/29/2019 5/11/2022
Parcel: 24417	-	e: Suburb with Multifamily Hous		571172022
Proposed Parking	Spaces Vehicles	s: 339 Bicycles: 38		
ND USE:				
Residential:		Percent of All Residential Units	S	
Single Family	0 DU	Extremely Low Income ( <u>&lt;</u>	30% MFI)	0 % Affordal
Multi Family	0 DU	Very Low Income ( > 30%	MFI, <u>&lt;</u> 50% MFI)	0 % Affordal
Subtotal	0 DU	Low Income ( > 50% MFI,	<u>&lt;</u> 80% MFI)	0 % Affordal
Office:	0 KSF			
Retail:	0 KSF			
Industrial:	245.6 KSF			
IT REDUCTION ST	RATEGIES			
Tier 1 - Project C	haracteristics			
Increase Resid	lential Density			
Existing D	ensity (DU/Residentia	Acres in half-mile buffer)		6
With Proje	ect Density (DU/Reside	ential Acres in half-mile buffer) .		6
Increase Deve	lopment Diversity			
Existing A	ctivity Mix Index			0.87
With Proje	ect Activity Mix Index			0.86
5	rdable and Below Mar			
		ts		0 %
				0 %
			•••••	0 %
•	oyment Density			
5		cial Acres in half-mile buffer)		37
-	-	mercial Acres in half-mile buffer	·)	38
Tier 2 - Multimoo	dal Infrastructure			
Tier 3 - Parking				

# CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

# **EMPLOYMENT ONLY**

The tool estimates that the project would generate per non-industrial worker VMT and per industrial worker VMT above the City's threshold.



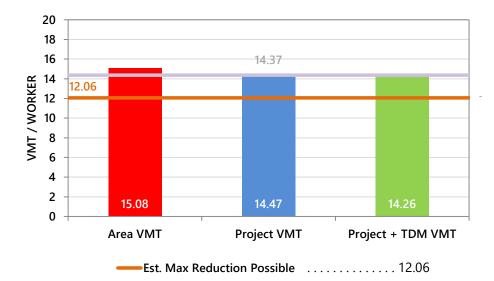
# VMT Analysis with Mitigation

PROJECT:							
Name: Locatic Parcel:	Fortune Driv on: 2400 Ringw 24417009	ood Ave an	d 1849 Fortune	Drive vith Multifamily Housing	Tool Version: Date:	2/29/2019 11/8/2022	
	ed Parking Space	es Ve	hicles: 339	Bicycles: 38			
LAND USE	:						
Mu Sul Office: Retail:	gle Family ılti Family btotal	0 DU 0 DU 0 DU 0 KSF 0 KSF	Extre Very	of All Residential Units emely Low Income ( <u>&lt;</u> 30% Low Income ( > 30% MF Income ( > 50% MFI, <u>&lt;</u> 8	l, <u>&lt;</u> 50% MFI)	0 % Affordable 0 % Affordable 0 % Affordable	
Industr		5.6 KSF					
	JCTION STRATE						
Tier 1	- Project Charac	teristics					
	With Project De rease Developme Existing Activity	(DU/Reside ensity (DU/R ent Diversity Mix Index .	esidential Acres	alf-mile buffer)		6 6 0.87	
Int	With Project Ac egrate Affordable					0.86	
	Extremely Low I Very Low Incom	ncome BMF ne BMR unit	R units		•••••	0 % 0 % 0 %	
Inc		(Jobs/Com		n half-mile buffer) res in half-mile buffer)		37 38	
Tier 2	- Multimodal In	frastructur	e				
	destrian Network	nts provide Improveme	d beyond the deents <i>(In Coordin</i> e	evelopment frontage?		Yes Yes	
Tier 3	Tier 3 - Parking						
Tier 4	- TDM Programs	5					
Tel		k Schedule		e Program		Schedule 10 %	

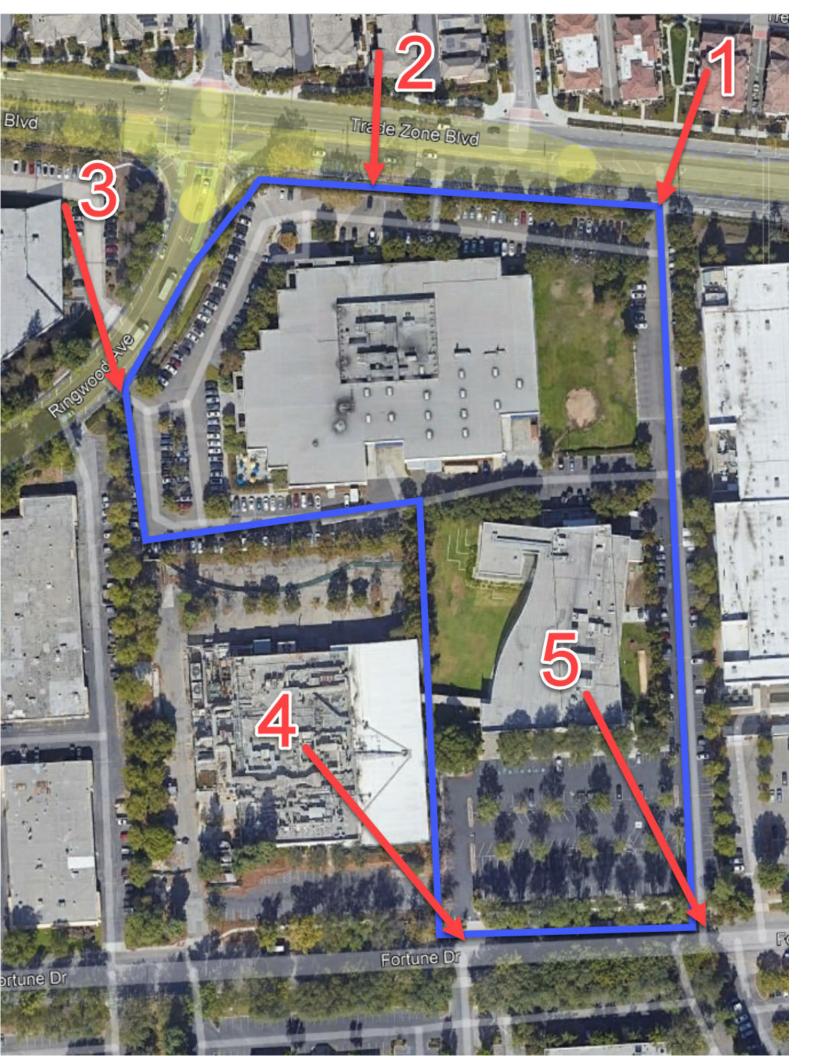
# CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

# **EMPLOYMENT ONLY**

The tool estimates that the project would generate per non-industrial worker VMT below the City's threshold. There are selected strategies that require coordination with the City of San Jose to implement.



# Appendix B Traffic Counts



#### Existing Site Driveway Counts

Driveway counts were conducted on March 31, 2022 Parking counts were conducted on April 18, 2022

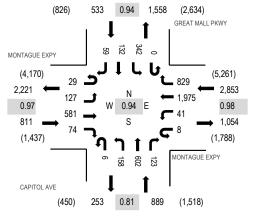
	Driveway 1 Driveway 2		2		Driveway	3		Driveway	4		Driveway	5	Т	otal			Peak Ho	ur			
-	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
15-Minute	Interval																				
7:00 AM	4	2	6	1	0	1	1	1	2	0	0	0	0	0	0	6	3	9			
7:15 AM	1	0	1	0	0	0	2	1	3	0	1	1	0	1	1	3	3	6			
7:30 AM	7	0	7	0	0	0	3	1	4	0	0	0	0	0	0	10	1	11			
7:45 AM	9	0	9	1	0	1	3	2	5	0	0	0	2	1	3	15	3	18	34	10	44
8:00 AM	4	1	5	1	0	1	0	0	0	0	0	0	1	0	1	6	1	7	34	8	42
8:15 AM	11	1	12	1	0	1	1	1	2	1	0	1	4	0	4	18	2	20	49	7	56
8:30 AM	7	0	7	0	0	0	1	2	3	0	0	0	1	1	2	9	3	12	48	9	57
8:45 AM	7	0	7	5	0	5	1	0	1	0	0	0	0	1	1	13	1	14	46	7	53
	50	4	54	9	0	9	12	8	20	1	1	2	8	4	12	80	17	97 <b>M</b>	IAX 48	9	57
																		# of parked			
																	Building	vehicles			
																	Olympus	262	40	8	48
															Micro Ch	ip (not par	t of project)	) 49	8	1	9
																	Total	311	48	9	57
		<b>D</b>			Dailana	•		<b>D</b>	•		Duiteren			Datasa	-	-	-4-1			Peak Ho	
-		Driveway			Driveway Out	Z Total		Driveway	3 Total		Driveway Out	4 Total	-	Driveway	5 Total		otal	Total			ur Total
4.00 514	In	Out	Total	In 1			In	Out	9	In	Out	Total	In	Out		In	Out	Total	In	Out	Total
4:00 PM 4:15 PM	2	9 6	10 8	4	2	3 5	2	/	9 12	0 0	1	1	2 0	2 6	4	6 10	21	27 32			
4:15 PM 4:30 PM	2	11	o 12	4	1	5	4	0	12 9	0	2	2	1	3	6 4	3	22 28	32 31			
4:45 PM			12	0	4	4		0	9				1	3					24	89	113
		5	7	2	2		0	5		0	2	2	1	4	5	5					
	2	5 11	7 11	2	2	4	0	5	5	0	2	2	1	4	5	5	18	23 25			
5:00 PM	0	11	11	0	1	4 1	0 2 1	5 3	5 5	0	2 0	2 0	1 0	4 8	8	5	18 23 7	25	20	91	111
5:00 PM 5:15 PM		11 4	11 6	0 0	1 0	4 1 0	2 1	5 3 1 7	5 5 2	0	0 1	0 1	1 0 1	1	8 2		23 7	25 11	20 14	91 76	111 90
5:00 PM 5:15 PM 5:30 PM	0 2 1	11 4 13	11 6 14	0 0 0	1 0 0	0	0	5 3 1 7	9	0 0 0	0 1 0	0 1 0	1 1	1 3	8 2 4	2 4 4	23 7 23	25 11 27	20 14 15	91 76 71	111 90 86
5:00 PM 5:15 PM	0	11 4	11 6	0 0	1 0	-	2 1	5 3 1 7 1		0	0 1	0 1	1 0 1 1 0	1	8 2		23 7	25 11 27 11	20 14 15 13	91 76 71 61	111 90 86 74
5:00 PM 5:15 PM 5:30 PM	0 2 1	11 4 13	11 6 14	0 0 0	1 0 0	0	2 1	5 3 1 7 1	9	0 0 0	0 1 0	0 1 0	1 1	1 3	8 2 4	2 4 4	23 7 23 8	25 11 27 11 <b>M</b>	20 14 15	91 76 71 61	111 90 86
5:00 PM 5:15 PM 5:30 PM	0 2 1	11 4 13	11 6 14	0 0 0	1 0 0	0	2 1	5 3 1 7 1	9	0 0 0	0 1 0	0 1 0	1 1	1 3	8 2 4	2 4 4	23 7 23 8	25 11 27 11 # of parked	20 14 15 13	91 76 71 61	111 90 86 74
5:00 PM 5:15 PM 5:30 PM	0 2 1	11 4 13	11 6 14	0 0 0	1 0 0	0	2 1	5 3 1 7 1	9	0 0 0	0 1 0	0 1 0	1 1	1 3	8 2 4	2 4 4	23 7 23 8 Building	25 11 27 11 # of parked vehicles	20 14 15 13 IAX 24	91 76 71 61 <b>89</b>	111 90 86 74 <b>113</b>
5:00 PM 5:15 PM 5:30 PM	0 2 1	11 4 13	11 6 14	0 0 0	1 0 0	0	2 1	5 3 1 7 1	9	0 0 0	0 1 0	0 1 0	1 1	1 3	8 2 4 2	2 4 4 3	23 7 23 8 Building Olympus	25 11 27 11 # of parked vehicles 262	20 14 15 13 IAX 24 20	91 76 71 61 <b>89</b> <b>75</b>	111 90 86 74 <b>113</b> <b>95</b>
5:00 PM 5:15 PM 5:30 PM	0 2 1	11 4 13	11 6 14	0 0 0	1 0 0	0	2 1	5 3 1 7 1	9	0 0 0	0 1 0	0 1 0	1 1	1 3	8 2 4 2	2 4 4 3	23 7 23 8 Building Olympus t of project)	25 11 27 11 # of parked vehicles 262 ) 49	20 14 15 13 IAX 24 20 4	91 76 71 61 <b>89</b> 75 14	111 90 86 74 <b>113</b> 95 18
5:00 PM 5:15 PM 5:30 PM	0 2 1	11 4 13	11 6 14	0 0 0	1 0 0	0	2 1	5 3 1 7 1	9	0 0 0	0 1 0	0 1 0	1 1	1 3	8 2 4 2	2 4 4 3	23 7 23 8 Building Olympus	25 11 27 11 # of parked vehicles 262	20 14 15 13 IAX 24 20	91 76 71 61 <b>89</b> 75 14	111 90 86 74 <b>113</b> <b>95</b>

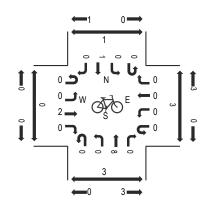


Location: 17 CAPITOL AVE & MONTAGUE EXPY AM Date: Thursday, May 23, 2019 Peak Hour: 07:45 AM - 08:45 AM Peak 15-Minutes: 08:15 AM - 08:30 AM

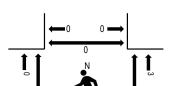
(303) 216-2439 www.alltrafficdata.net

#### **Peak Hour - Motorized Vehicles**





**Peak Hour - Bicycles** 



2

5

0

**Peak Hour - Pedestrians** 

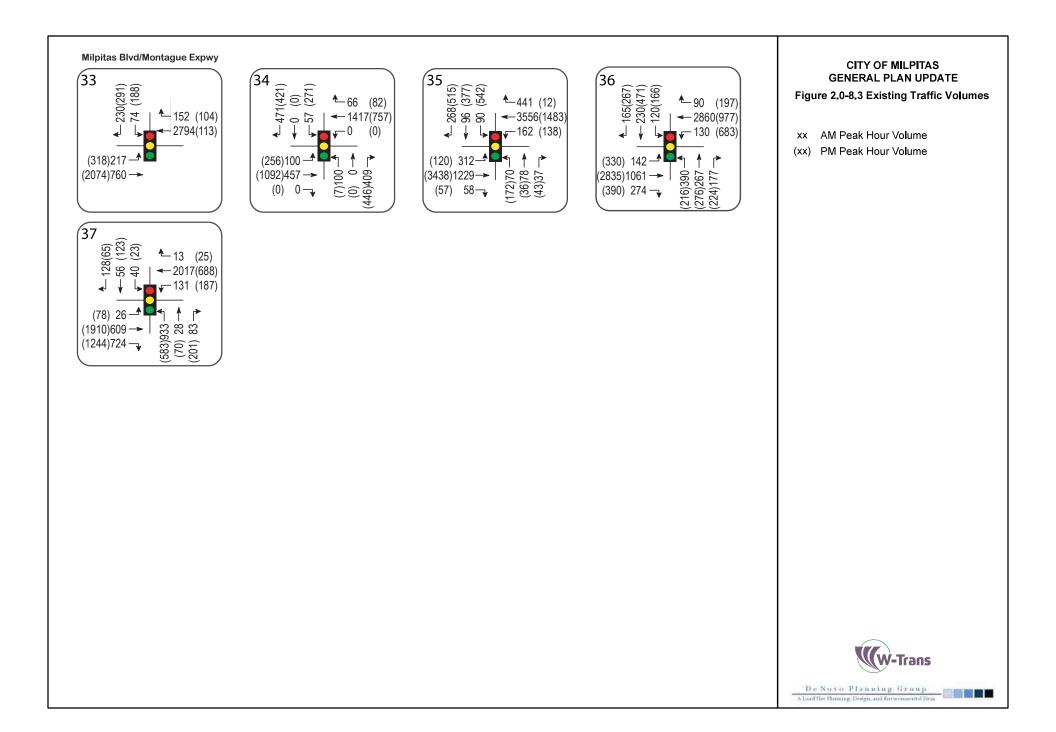
Note: Total study counts contained in parentheses.

#### **Traffic Counts - Motorized Vehicles**

	MO		UE EX	ΡY			IE EXP'	Y	C	APITO				EAT MA		WY					0	
Interval		Eastb	ound			Westb	ound			Northb	ound			Southt	bound			Rolling	Ped	lestriar	n Cross	ngs
 Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru I	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	12	12	95	13	0	10	379	115	0	22	59	14	0	23	11	7	772	4,041	0	0	1	1
7:15 AM	5	8	130	11	0	8	471	146	1	43	90	15	0	25	16	8	977	4,488	1	2	0	1
7:30 AM	16	15	112	6	2	13	433	164	1	40	129	28	0	46	26	10	1,041	4,860	1	1	0	1
7:45 AM	4	37	151	15	2	8	520	193	0	37	143	27	0	70	28	16	1,251	5,086	0	3	3	0
8:00 AM	10	28	137	18	0	15	456	200	1	41	131	39	0	96	34	13	1,219	5,001	0	2	2	0
8:15 AM	6	35	148	14	5	9	505	210	4	41	201	28	0	89	40	14	1,349		0	2	2	0
8:30 AM	9	27	145	27	1	9	494	226	1	39	127	29	0	87	30	16	1,267		0	1	0	0
8:45 AM	10	24	142	15	0	24	453	190	1	27	124	35	0	67	41	13	1,166		1	4	2	0

### Peak Rolling Hour Flow Rates

		East	bound			West	bound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Articulated Trucks	0	1	9	1	0	0	22	5	0	0	0	0	0	4	0	0	42
Lights	28	122	547	70	8	39	1,912	802	6	157	596	122	0	326	129	57	4,921
Mediums	1	4	25	3	0	2	41	22	0	1	6	1	0	12	3	2	123
Total	29	127	581	74	8	41	1,975	829	6	158	602	123	0	342	132	59	5,086



# Appendix C Approved Trips Inventory

## AM PROJECT TRIPS

AM PROJECT TRIPS												03/22	/2022
Intersection of : N Capitol Av &	& Cropley Av	& Trade	Zone	Bl									
Traffix Node Number : 3381													
Permit No./Proposed Land Use/Description/Location		M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
NSJ LEGACY		29	24	4	0	4	0	4	18	20	2	5	2
NORTH SAN JOSE													
PDC88-08-097 (3-06700) Residential CROPLEY & OLD PIEDMONT BRANCATO - 39 UNITS		0	0	0	0	0	0	0	1	0	0	5	0
	TOTAL:	29	24	4	0	4	0	4	19	20	2	10	2
		LEFT	TH	RU R	IGHT								
	NORTH	0	4	l	0								
	EAST	2	10	0	2								
	SOUTH	29	2	4	4								
	WEST	4	1	9	20								

## PM PROJECT TRIPS

PM PROJECT TRIPS												03/22	2/2022
Intersection of : N Capitol Av	& Cropley Av a	& Trade	Zone	Bl									
Traffix Node Number : 3381													
Permit No./Proposed Land Use/Description/Location		M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
NSJ LEGACY		16	38	19	4	33	1	1	12	13	3	2	1
NORTH SAN JOSE													
PDC88-08-097 (3-06700) Residential CROPLEY & OLD PIEDMONT BRANCATO - 39 UNITS		0	0	0	0	0	0	0	5	0	0	1	0
	TOTAL:	16	38	19	4	33	1	1	17	13	3	3	1
		LEFT	THE	RU RI	GHT								
	NORTH	4	33	3	1								
	EAST	3	3		1								
	SOUTH	16	38	3	19								
	WEST	1	17	7	13								

Page	No:3

03/22/2022
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												/	.,
Intersection of : Fortune Dr & I	undy Av												
Traffix Node Number : 3531													
Permit No./Proposed Land Use/Description/Location		M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
NSJ LEGACY		3	7	0	1	6	2	0	0	0	0	0	1
NORTH SAN JOSE													
	TOTAL:	3	7	0	1	6	2	0	0	0	0	0	1
		LEFT	тн	RU R	IGHT								
	NORTH	1	6	5	2								
	EAST	0	(	)	1								
	SOUTH	3	5	7	0								
	WEST	0	(	)	0								

Tabana di ang Garangan ang sa												03/22	., 2022
Intersection of : Fortune Dr & Lund	dy Av												
Traffix Node Number : 3531													
Permit No./Proposed Land Use/Description/Location		M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
NSJ LEGACY		4	19	0	0	10	2	0	0	0	0	0	2
NORTH SAN JOSE													
	TOTAL:	4	19	0	0	10	2	0	0	0	0	0	2
		LEF.	т тн	RU R	IGHT								
	NORTH	0	1	0	2								

EAST

SOUTH

WEST

## AM PROJECT TRIPS

Traffix Node Number : 3663												
Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 Ebr	M06 WBL	M05 WBT	M04 WBR
NSJ LEGACY	6	1	2	0	0	0	10	17	35	10	11	1
NORTH SAN JOSE												
PDC03-108 OFF (3-16680) Retail/Commercial BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFI BERRYESSA FLEA MKT (OFFICE)	0	0	0	0	0	0	0	0	3	0	0	0
PDC03-108 RES (3-16680) Residential BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RESIDENTIAL)	13	0	0	0	0	0	0	0	7	0	0	0
PDC03-108 RET (3-16680) Retail/Commercial BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RETAIL)	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL:	19	1	2	0	0	0	10	17	45	10	11	1

	LEFT	THRU	RIGHT
NORTH	0	0	0
EAST	10	11	1
SOUTH	19	1	2
WEST	10	17	45

03/22/2022

## PM PROJECT TRIPS

M09 NBL	M08 Nbt	M07 NBR	M03 SBL	M02 Sbt	M01 SBR	M12 FBL	M11 FBT	M10 FBR	M06 WBL	M05 WBT	M04 WBF
8	0	11	0	0	0	0	24	11	34	20	1
-	-	0	0	0	0	0	0	1	0	0	0
		0	0	0	0	0	0	12	0	0	0
0	0	0	5	0	1	2	0	0	0	0	11
	NBL 8 3	NBL         NBT           8         0           3         0           6         0	NBL         NBT         NBR           8         0         11           3         0         0           6         0         0	NBL         NBT         NBR         SBL           8         0         11         0           3         0         0         0           6         0         0         0	NBL         NBT         NBR         SBL         SBT           8         0         11         0         0           3         0         0         0         0           6         0         0         0         0	NBL         NBT         NBR         SBL         SBT         SBR           8         0         11         0         0         0           3         0         0         0         0         0           6         0         0         0         0         0	NBL         NBT         NBR         SBL         SBT         SBR         EBL           8         0         11         0         0         0         0           3         0         0         0         0         0         0           6         0         0         0         0         0         0	NBL         NBT         NBR         SBL         SBT         SBR         EBL         EBT           8         0         11         0         0         0         0         24           3         0         0         0         0         0         0         0         0           6         0         0         0         0         0         0         0         0	NBL         NBT         NBR         SBL         SBT         SBR         EBL         EBT         EBR           8         0         11         0         0         0         0         24         11           3         0         0         0         0         0         0         1           6         0         0         0         0         0         0         12	NBL         NBT         NBR         SBL         SBT         SBR         EBL         EBT         EBR         WBL           8         0         11         0         0         0         0         24         11         34           3         0         0         0         0         0         0         1         0           6         0         0         0         0         0         12         0	NBL         NBT         NBR         SBL         SBT         SBR         EBL         EBT         EBR         WBL         WBT           8         0         11         0         0         0         0         24         11         34         20           3         0         0         0         0         0         0         11         34         20           6         0         0         0         0         0         0         11         0         0

	LEFT	THRU	RIGHT
NORTH	5	0	1
EAST	34	20	12
SOUTH	17	0	11
WEST	2	24	24

03/22/2022

AM PROJECT TRIPS											03/22	2022
Intersection of : Ringwood Av & Trade Zor	ne Bl											
Traffix Node Number : 3905												
Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 Ebr	M06 WBL	M05 WBT	M04 WBR
NSJ LEGACY	0	0	0	0	0	0	0	37	28	3	26	0
NORTH SAN JOSE												
тота	L: 0	0	0	0	0	0	0	37	28	3	26	0
	LEF	г тн	RU R	IGHT								
NO	ORTH 0	(	)	0								
EA	<b>\ST</b> 3	2	6	0								
so	<b>0</b> 0	(	)	0								

WEST 0 37 28

PM PROJECT TRIPS												03/22	2/2022
Intersection of : Ringwood Av & T:	rade Zone B	1											
Traffix Node Number : 3905													
Permit No./Proposed Land Use/Description/Location		M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
NSJ LEGACY		0	0	0	0	0	0	0	30	7	5	72	0
NORTH SAN JOSE													
	TOTAL:	0	0	0	0	0	0	0	30	7	5	72	0
		LEFT	TH	RU R	IGHT								
	NORTH	0	C	)	0								
	EAST	5	7	2	0								
	SOUTH	0	C	)	0								
	WEST	0	3	0	7								

#### AM PROJECT TRIPS

03/22/2022

												./2022
Intersection of : S Main St & Old Oaklar	nd Rd & Mon <sup>-</sup>	taque	Ex									
Fraffix Node Number : 5801												
Permit No./Proposed Land Jse/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
C15-054 (3-14457) Dffice/Industrial 1657 ALVISO-MILPITAS ROAD 237 INDUSTRIAL CENTER/ CILKER	0	0	0	0	0	6	1	3	0	0	18	0
H14-011 (3-18810) Retail/Commercial NW CORNER OF SR 237 AND N. FIRST STREET HOMEWOOD SUITES HOTEL	0	0	0	0	0	0	0	0	0	0	0	0
H14-020 (3-04341) Office/Industrial 750 RIDDER PARK DRIVE SUPERMICRO	0	0	0	0	0	0	0	0	0	2	0	0
NSJ LEGACY	34	29	4	11	13	19	20	144	27	9	133	5

NORTH SAN JOSE												
PD13-012 (3-09684) Office/Industrial NW CORNER OF SR237 AND N. FIRST STREET SOUTH BAY	0	0	0	0	0	6	2	5	0	0	19	0
PD13-039 (3-18698) Office/Industrial NW CORNER OF NORTHECH PKWY AND DISK DR TRAMMEL CROW (R&D)												
PD14-007 (3-18698) Office/Industrial NW CORNER OF NORTECH PKWY AND DISK DR TRAMMEL CROW (MFG.)	0	0	0	0	0	3	0	1	0	0	9	0

## AM PROJECT TRIPS

AM PROJECT TRIPS											03/22	2/2022
Intersection of : S Main St & Old Oakland R	d & Mont	aque	Ex									
Traffix Node Number : 5801												
Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
PDC03-108 OFF (3-16680) Retail/Commercial BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFI BERRYESSA FLEA MKT (OFFICE)	0	1	0	2	4	0	0	1	0	0	0	0
PDC03-108 RES (3-16680) Residential BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RESIDENTIAL)	0			4	7	0	0	3	0	0	5	7
PDC03-108 RET (3-16680) Retail/Commercial BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RETAIL)				0	0	0	0	0	0	0	0	0
TOTAL:	34	43	4	17	24	34	23	157	27	11	184	12
	LEFT	ч тн	RU	RIGHT								
NORTH	<b>I</b> 17	2	4	34								
EAST	11		34	12								
SOUTE	01	_	3	4								
WEST	23	15	57	27								

#### PM PROJECT TRIPS

03/	22.	/20	22

Intersection of : S Main St & Old Oakland Rd & Montague Ex

# Traffix Node Number : 5801

Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
C15-054 (3-14457) Office/Industrial 1657 ALVISO-MILPITAS ROAD 237 INDUSTRIAL CENTER/ CILKER	0	0	0	0	0	1	7	20	0	0	3	0
H14-011 (3-18810) Retail/Commercial NW CORNER OF SR 237 AND N. FIRST STREET HOMEWOOD SUITES HOTEL	0	0	0	0	0	0	0	0	0	0	0	0
H14-020 (3-04341) Office/Industrial 750 RIDDER PARK DRIVE SUPERMICRO	0	0	1	0	0	0	0	0	0	1	0	0
NSJ LEGACY	25	49	21	10	25	13	39	169	23	28	180	22
NORTH SAN JOSE												
PD13-012 (3-09684) Office/Industrial NW CORNER OF SR237 AND N. FIRST STREET SOUTH BAY	0	0	0	0	0	1	6	19	0	0	2	0
PD13-039 (3-18698) Office/Industrial NW CORNER OF NORTHECH PKWY AND DISK DR TRAMMEL CROW (R&D)												
PD14-007 (3-18698) Office/Industrial NW CORNER OF NORTECH PKWY AND DISK DR TRAMMEL CROW (MFG.)	0	0	0	0	0	0	2	8	0	0	1	0

## PM PROJECT TRIPS

PM PROJECT TRIPS											03/22	2/2022
Intersection of : S Main St & Old Oakland Ro	l & Monta	aque	Ex									
Traffix Node Number : 5801												
Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR		M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
PDC03-108 OFF (3-16680) Retail/Commercial BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFI BERRYESSA FLEA MKT (OFFICE)	0	3	0	0	1	0	0	0	0	0	1	2
PDC03-108 RES (3-16680) Residential BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RESIDENTIAL)	0	7	0	7	13	0	0	5	0	0	3	3
PDC03-108 RET (3-16680) Retail/Commercial BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RETAIL)	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL:	25	59	22	17	39	15	54	221	23	29	190	27
	LEFT	ТН	IRU	RIGHT								
NORTH	17	3	9	15								
EAST	29		90	27								
SOUTH	25	-	9	22								
WEST	54	22	21	23								

#### AM PROJECT TRIPS

03/22/2022

Intersection of : McCandless Dr & Montaque Ex / Trade Zone Bl & W Montaque Ex

## Traffix Node Number : 5802

Permit No./Proposed Land _Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
C15-054 (3-14457) Office/Industrial 1657 ALVISO-MILPITAS ROAD 237 INDUSTRIAL CENTER/ CILKER	6	0	0	0	0	0	0	2	1	0	12	0
H14-011 (3-18810) Retail/Commercial NW CORNER OF SR 237 AND N. FIRST STREET HOMEWOOD SUITES HOTEL	0	0	0	0	0	0	0	0	0	0	0	0
H14-020 (3-04341) Office/Industrial 750 RIDDER PARK DRIVE SUPERMICRO	0	0	0	0	0	0	0	0	0	0	2	0
NSJ LEGACY	22	0	8	0	1	0	15	69	65	14	105	2
NORTH SAN JOSE												
PD13-012 (3-09684) Office/Industrial NW CORNER OF SR237 AND N. FIRST STREET SOUTH BAY	6	0	0	0	0	0	0	3	2	0	13	0
PD13-039 (3-18698) Office/Industrial NW CORNER OF NORTHECH PKWY AND DISK DR TRAMMEL CROW (R&D)												
PD14-007 (3-18698) Office/Industrial NW CORNER OF NORTECH PKWY AND DISK DR TRAMMEL CROW (MFG.)	3	0	0	0	0	0	0	0	0	0	6	0

#### AM PROJECT TRIPS

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AM PROJECT TRIPS											03/22	2/2022
Intersection of : McCandless Dr & Montague	Ex / Tra	ade Zo	ne Bl	. & W Mc	ontaqu	e Ex						
Traffix Node Number : 5802												
Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR		M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
PDC03-108 OFF (3-16680) Retail/Commercial BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFI BERRYESSA FLEA MKT (OFFICE)	0	0	0	0	0	0	0	0	3	0	0	0
PDC03-108 RES (3-16680) Residential BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RESIDENTIAL)	13	0		0	0	0	0	0	7	0	0	0
PDC03-108 RET (3-16680) Retail/Commercial BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RETAIL)				0	0	0	0	0	0	0	0	0
TOTAL:	50	0	8	0	1	0	15	74	78	14	138	2
	LEF'	т тн	IRU	RIGHT								
NORTH	<b>I</b> 0		1	0								
EAST	14	1	38	2								
SOUTH	<b>I</b> 50		0	8								
WEST	15	7	4	78								

#### PM PROJECT TRIPS

03/22/2022

Intersection of : McCandless Dr & Montague Ex / Trade Zone Bl & W Montague Ex

## Traffix Node Number : 5802

Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
C15-054 (3-14457) Office/Industrial 1657 ALVISO-MILPITAS ROAD 237 INDUSTRIAL CENTER/ CILKER	1	0	0	0	0	0	0	13	7	0	2	0
H14-011 (3-18810) Retail/Commercial NW CORNER OF SR 237 AND N. FIRST STREET HOMEWOOD SUITES HOTEL	0	0	0	0	0	0	0	0	0	0	0	0
H14-020 (3-04341) Office/Industrial 750 RIDDER PARK DRIVE SUPERMICRO	0	0	0	0	0	0	0	1	0	0	1	0
NSJ LEGACY	66	8	14	5	10	8	1	96	59	15	109	3
NORTH SAN JOSE												
PD13-012 (3-09684) Office/Industrial NW CORNER OF SR237 AND N. FIRST STREET SOUTH BAY	1	0	0	0	0	0	0	12	6	0	1	0
PD13-039 (3-18698) Office/Industrial NW CORNER OF NORTHECH PKWY AND DISK DR TRAMMEL CROW (R&D)												
PD14-007 (3-18698) Office/Industrial NW CORNER OF NORTECH PKWY AND DISK DR TRAMMEL CROW (MFG.)	0	0	0	0	0	0	0	5	2	0	0	0

# PM PROJECT TRIPS

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PM PROJECT TRIPS											03/22	2/2022
Intersection of : McCandless Dr & Montaque E	x / Tra	de Zo	ne B	l & W Mo	ontaque	e Ex						
Traffix Node Number : 5802												
Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBE		M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 Ebr	M06 WBL	M05 WBT	M04 WBR
PDC03-108 OFF (3-16680) Retail/Commercial BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFI BERRYESSA FLEA MKT (OFFICE)	3	0	0	0	0	0	0	0	1	0	0	0
PDC03-108 RES (3-16680) Residential BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RESIDENTIAL)				0	0	0	0	0	12	0	0	0
PDC03-108 RET (3-16680) Retail/Commercial BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RETAIL)				0	0	0	0	0	0	0	0	0
TOTAL:	79	15	14	5	10	8	1	127	87	15	113	3
	LEFT	тн	IRU	RIGHT								
NORTH	5	1	.0	8								
EAST	15	1	13	3								
SOUTH	79	1	.5	14								
WEST	1	1:	27	87								

# Milpitas Approved Projectst Near Project Site

						AM Pea	k Hour					PM Pea	k Hour		
		Da	ily		S	plit		Trip			S	plit		Trip	
Land Use	Size	Rate	Trip	Rate	In	Out	In	Out	Total	Rate	In	Out	In	Out	Total
720 Montague Expressway															
#822 - Strip Retail Plaza (<40k)	5,630 Square Feet	54.450	307	2.360	60%	40%	8	5	13	6.590	50%	50%	19	18	37
#221 - Multifamily Housing (Mid-Rise)	216 Dwelling Units	4.750	1,026	0.320	56%	44%	39	30	69	0.290	43%	57%	27	36	63
1256 Piper Drive															
#822 - Strip Retail Plaza (<40k)	2,937 Square Feet	54.450	160	2.360	60%	40%	4	3	7	6.590	50%	50%	10	9	19
#220 - Multifamily Housing (Low-Rise)	98 Dwelling Units	4.720	463	0.380	29%	71%	11	26	37	0.610	60%	40%	36	24	60
#222 - Multifamily Housing (High-Rise)	210 Dwelling Units	3.960	832	0.230	33%	67%	16	32	48	0.260	57%	43%	31	24	55
Total Approved Trips			2,788				78	96	174				123	111	234

# Appendix D Volume Summary

					Mo	ovemen	ts						
_	No	rth Appr	oach	Ea	East Approach			ith Appr	oach	We	West Approach		
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Q-sumt-	500	050	455	74	0744	400	4 4 7	205	057	400	057	050	6404
Counts	588	258	155	71	2744	102	147	325	357	162	957	258	6124
Factored Counts - 1% Annual Growth	625	274	165	76	2913	109	157	345	379	172	1016	274	6505
Milpitas BART Project Trips	-1	-4	0	0	-15	2	8	-15	-17	0	172	0	130
Existing Conditions	624	270	165	76	2898	111	165	330	362	172	1188	274	6635
Approved Project Trips													
San Jose Approved Project Trips	34	24	17	12	184	11	4	43	34	27	157	23	570
Milpitas Approved Project Trips	0	0	0	0	48	0	0	0	0	0	39	0	87
Total Approved Project Trips	34	24	17	12	232	11	4	43	34	27	196	23	657
Background Conditions	658	294	182	88	3130	122	169	373	396	199	1384	297	7292
Proposed Project Trips	0	0	4	2	18	2	5	0	0	0	38	0	69
Existing Credit	0	0	-2	0	-3	0	-2	Ō	0	0	-16	0	-23
Net Project Trips	0	0	2	2	15	2	3	0	0	0	22	0	46
Background Plus Project Conditions	658	294	184	90	3145	124	172	373	396	199	1406	297	7338

Intersection Number: Traffix Node Number: Intersection Name: Peak Hour:

Count Date:

2 5802 Trade Zon

5802 Trade Zone Boulevard/McCandless Drive and Montague Expressway \* AM 9/17/19

					Mo	ovement	S						
	North Approach			Ea	East Approach			th App	roach	West Approach			_
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Counts	330	67	30	25	1721	68	77	25	816	478	603	26	4266
Factored Counts - 1% Annual Growth	340	70	31	26	1774	71	80	26	841	493	622	27	4401
Milpitas BART Project Trips	-1	-6	0	1	4	-5	1	-5	-17	-6	188	-2	152
Existing Conditions	339	64	31	27	1778	66	81	21	824	487	810	25	4553
Approved Project Trips													
San Jose Approved Project Trips	0	1	0	2	138	14	8	0	50	78	74	15	380
Milpitas Approved Project Trips	0	0	0	0	48	0	0	0	0	0	39	0	87
Total Approved Project Trips	0	1	0	2	186	14	8	0	50	78	113	15	467
Background Conditions	339	65	31	29	1964	80	89	21	874	565	923	40	5020
Proposed Project Trips	0	0	0	0	0	20	8	0	21	46	0	0	95
Existing Credit	0	0	0	0	0	-9	-2	0	-4	-20	0	0	-35
Net Project Trips	0	0	0	0	0	11	6	0	17	26	0	0	60
Background Plus Project Conditions	339	65	31	29	1964	91	95	21	891	591	923	40	5080

Intersection Number:	3
Traffix Node Number:	3905
Intersection Name:	Ringwood Avenue and Trade Zone Boulevard
Peak Hour:	AM
Count Date:	9/17/19

					М	ovements	S						
_	North Approach			Eas	East Approach			th Appi	roach	Wes	_		
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Counts	78	6	5	0	748	214	30	1	155	333	345	7	1922
Factored Counts - 1% Annual Growth	81	7	6	0	771	221	31	2	160	344	356	8	1987
Milpitas BART Project Trips	0	0	0	0	-21	0	0	0	0	0	-17	0	-38
Existing Conditions	81	7	6	0	750	221	31	2	160	344	339	8	1949
Approved Project Trips													
San Jose Approved Project Trips	0	0	0	0	26	3	0	0	0	28	37	0	94
Milpitas Approved Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Project Trips	0	0	0	0	26	3	0	0	0	28	37	0	94
Background Conditions	81	7	6	0	776	224	31	2	160	372	376	8	2043
Proposed Project Trips	0	0	0	0	14	0	27	0	15	2	64	0	122
Existing Credit	0	0	0	0	-1	-3	-1	0	-5	-14	-14	0	-38
Net Project Trips	0	0	0	0	13	-3	26	0	10	-12	50	0	84
Background Plus Project Conditions	81	7	6	0	789	221	57	2	170	360	426	8	2127

Intersection Number: Traffix Node Number:	4 3663
Intersection Name:	Lundy Avenue and Trade Zone Boulevard
Peak Hour:	AM
Count Date:	9/13/18

					М	ovement	s						
_	No	rth Appr	oach	East Approach			Sou	th App	roach	Wes			
Scenario:	RT	TH	LT	RT	ŤĤ	LT	RT	TH	LT	RT	TH	LT	Total
Counts	3	7	4	31	771	730	135	11	87	209	181	10	2179
Factored Counts - 1% Annual Growth	4	8	5	33	803	760	141	12	91	218	189	11	2275
Milpitas BART Project Trips	0	0	0	0	-21	0	0	0	0	0	-17	0	-38
Existing Conditions	4	8	5	33	782	760	141	12	91	218	172	11	2237
Approved Project Trips													
San Jose Approved Project Trips	0	0	0	1	11	10	2	1	19	45	17	10	116
Milpitas Approved Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Project Trips	0	0	0	1	11	10	2	1	19	45	17	10	116
Background Conditions	4	8	5	34	793	770	143	13	110	263	189	21	2353
Proposed Project Trips	0	0	0	0	0	23	1	0	0	15	12	14	65
Existing Credit	0	0	0	0	-8	-3	0	0	-1	-2	-2	-1	-17
Net Project Trips	0	0	0	0	-8	20	1	0	-1	13	10	13	48
Background Plus Project Conditions	4	8	5	34	785	790	144	13	109	276	199	34	2401

Intersection Number:	5
Traffix Node Number:	3381
Intersection Name:	Capitol Avenue and Trade Zone Boulevard/Cropley Avenue
Peak Hour:	AM
Count Date:	1/23/18

					М	ovement	s						
	No	rth Appro	bach	Eas	st Appro	bach	Sou	th Appr	oach	Wes	st Appro	bach	
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Counts	18	195	29	254	701	276	127	809	864	149	102	32	3556
Factored Counts - 1% Annual Growth	19	203	31	265	730	288	133	842	900	156	107	34	3708
Milpitas BART Project Trips	0	3	0	8	-3	1	0	5	-7	0	0	1	8
Existing Conditions	19	206	31	273	727	289	133	847	893	156	107	35	3716
Approved Project Trips													
San Jose Approved Project Trips	0	4	0	2	10	2	4	24	29	20	19	4	118
Milpitas Approved Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Project Trips	0	4	0	2	10	2	4	24	29	20	19	4	118
Background Conditions	19	210	31	275	737	291	137	871	922	176	126	39	3834
Proposed Project Trips	0	0	0	0	5	0	0	0	19	9	2	2	37
Existing Credit	0	0	0	0	-2	0	0	0	-8	-2	0	0	-12
Net Project Trips	0	0	0	0	3	0	0	0	11	7	2	2	25
Background Plus Project Conditions	19	210	31	275	740	291	137	871	933	183	128	41	3859

Intersection Number:	6
Traffix Node Number:	3531
Intersection Name:	Lundy Avenue and Fortune Drive
Peak Hour:	AM
Count Date:	9/17/19

					М	ovement	S						
_	No	rth Appr	oach	Eas	East Approach			uth Appr	oach	Wes			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Counts	294	593	215	28	11	3	9	203	59	7	20	0	1442
Factored Counts - 1% Annual Growth	303	611	222	29	12	4	10	210	61	8	21	0	1491
Milpitas BART Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Conditions	303	611	222	29	12	4	10	210	61	8	21	0	1491
Approved Project Trips													
San Jose Approved Project Trips	2	6	1	1	0	0	0	7	3	0	0	0	20
Milpitas Approved Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Project Trips	2	6	1	1	0	0	0	7	3	0	0	0	20
Background Conditions	305	617	223	30	12	4	10	217	64	8	21	0	1511
Proposed Project Trips	37	2	0	0	0	0	0	0	3	0	0	1	43
Existing Credit	-4	0	0	0	0	0	0	-1	-1	0	0	0	-6
Net Project Trips	33	2	0	0	0	0	0	-1	2	0	0	1	37
Background Plus Project Conditions	338	619	223	30	12	4	10	216	66	8	21	1	1548

Intersection Number:	7
Traffix Node Number:	5803
Intersection Name:	Capitol Avenue/Great Mall Parkway and Montague Expressway *
Peak Hour:	AM
Count Date:	5/23/19

	Movements												
	No	orth Appro	oach	Eas	East Approach			th Appr	oach	Wes			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Counts	59	132	342	829	1975	49	123	602	164	74	581	156	5086
Factored Counts - 1% Annual Growth	61	136	353	855	2035	51	127	621	169	77	599	161	5245
Milpitas BART Project Trips	0	9	13	-4	-22	-47	-115	-7	22	80	109	0	39
Existing Conditions	61	145	366	851	2013	4	12	614	191	157	708	161	5284
Approved Project Trips													
San Jose Approved Project Trips	0	0	0	0	154	0	0	0	0	0	82	0	236
Milpitas Approved Project Trips	0	0	0	0	48	0	0	0	0	0	39	0	87
Total Approved Project Trips	0	0	0	0	202	0	0	0	0	0	121	0	323
Background Conditions	61	145	366	851	2215	4	12	614	191	157	829	161	5607
Proposed Project Trips	1	0	0	0	19	0	2	0	0	0	7	0	29
Existing Credit	-1	0	0	0	-8	0	0	0	0	0	-1	0	-10
Net Project Trips	0	0	0	0	11	0	2	0	0	0	6	0	19
Background Plus Project Conditions	61	145	366	851	2226	4	14	614	191	157	835	161	5626

Intersection Number:	8
Traffix Node Number:	5804
Intersection Name:	Milpitas Boulevard and Montague Expressway *
Peak Hour:	AM
Count Date:	9/1/16

	Movements													
	Nor	th Appr	oach	Eas	East Approach			th Appr	oach	We	bach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total	
Counts	230	0	74	152	2794	0	0	0	0	0	760	217	4227	
Factored Counts - 1% Annual Growth	245	0	79	162	2966	0	0	0	0	0	807	231	4490	
Milpitas BART Project Trips	-41	51	-2	-2	-230	296	156	107	5	10	-5	-108	237	
Existing Conditions	204	51	77	160	2736	296	156	107	5	10	802	123	4727	
Approved Project Trips														
San Jose Approved Project Trips	0	0	0	0	154	0	0	0	0	0	82	0	236	
Milpitas Approved Project Trips	0	0	0	0	39	0	0	0	0	0	48	0	87	
Total Approved Project Trips	0	0	0	0	193	0	0	0	0	0	130	0	323	
Background Conditions	204	51	77	160	2929	296	156	107	5	10	932	123	5050	
Proposed Project Trips	5	0	0	0	14	0	0	0	0	0	7	2	28	
Existing Credit	-2	0	0	0	-6	0	0	0	0	0	-1	0	-9	
Net Project Trips	3	0	0	0	8	0	0	0	0	0	6	2	19	
Background Plus Project Conditions	207	51	77	160	2937	296	156	107	5	10	938	125	5069	

Intersection Number:	9
Traffix Node Number:	9999
Intersection Name:	Ringwood Avenue and Fortune Drive
Peak Hour:	AM
Count Date:	1/1/22
Traffix Node Number: Intersection Name: Peak Hour:	9999 Ringwood Avenue and Fortune Drive AM

	Movements												
-	No	orth Appro	oach	Eas	East Approach			th Appro	oach	Wes			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Tota
Counts	10	552	10	75	10	103	14	113	10	5	5	5	912
Factored Counts - 1% Annual Growth	10	552	10	76	10	103	14	113	10	5	5	5	913
Milpitas BART Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Conditions	10	552	10	76	10	103	14	113	10	5	5	5	913
Approved Project Trips													
San Jose Approved Project Trips	0	31	0	0	0	0	0	0	0	0	0	0	31
Milpitas Approved Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Project Trips	0	31	0	0	0	0	0	0	0	0	0	0	31
Background Conditions	10	583	10	76	10	103	14	113	10	5	5	5	944
Proposed Project Trips	0	0	0	39	0	0	0	1	0	0	0	0	40
Existing Credit	0	0	-7	-4	0	0	0	0	0	0	0	0	-11
Net Project Trips	0	0	-7	35	0	0	0	1	0	0	0	0	29
Background Plus Project Conditions	10	583	3	111	10	103	14	114	10	5	5	5	973

	Movements												
-	No	rth Appr	oach	Eas	st Appro	ach	Sou	th Appr	roach	We			
Scenario:	RT	TH	LT	RT	ŤĤ	LT	RT	TH	LT	RT	ΤĤ	LT	Total
Counts	252	508	204	145	1011	239	253	298	213	479	2586	281	6469
Factored Counts - 1% Annual Growth	263	529	213	143	1053	239	264	311	213	499	2692	293	6739
Milpitas BART Project Trips	0	-9	1	0	132	6	15	0	-4	-8	13	0	146
Existing Conditions	263	520	214	151	1185	255	279	311	218	491	2705	293	6885
Approved Project Trips													
San Jose Approved Project Trips	15	39	17	27	190	29	22	59	25	23	221	54	721
Milpitas Approved Project Trips	0	0	0	0	56	0	0	0	0	0	62	0	118
Total Approved Project Trips	15	39	17	27	246	29	22	59	25	23	283	54	839
Background Conditions	278	559	231	178	1431	284	301	370	243	514	2988	347	7724
Proposed Project Trips	0	0	2	4	38	5	2	0	0	0	16	0	67
Existing Credit	0	0	-1	-3	-30	-4	-1	0	0	0	-8	0	-47
Net Project Trips	0	0	1	1	8	1	1	0	0	0	8	0	20
Background Plus Project Conditions	278	559	232	179	1439	285	302	370	243	514	2996	347	7744

Intersection Number: Traffix Node Number: Intersection Name: Peak Hour:

Count Date:

2 5802 Trade Zone Boulevard/McCandless Drive and Montague Expressway \* PM 11/8/18

	Movements													
_	No	rth Appro	bach	Ea	East Approach			th Appr	roach	West Approach				
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total	
Counts	78	124	31	71	828	202	165	71	528	1216	1715	82	5111	
Factored Counts - 1% Annual Growth	82	130	33	74	862	211	172	74	550	1266	1785	86	5325	
Milpitas BART Project Trips	-2	-2	0	0	154	1	-3	-2	-13	-10	38	-1	160	
Existing Conditions	80	128	33	74	1016	212	169	72	537	1256	1823	85	5485	
Approved Project Trips														
San Jose Approved Project Trips	8	10	5	3	113	15	14	15	79	87	127	1	477	
Milpitas Approved Project Trips	0	0	0	0	56	0	0	0	0	0	62	0	118	
Total Approved Project Trips	8	10	5	3	169	15	14	15	79	87	189	1	595	
Background Conditions	88	138	38	77	1185	227	183	87	616	1343	2012	86	6080	
Proposed Project Trips	0	0	0	0	0	9	16	0	46	20	0	0	91	
Existing Credit	0	0	0	0	0	-4	-14	0	-37	-10	0	0	-65	
Net Project Trips	0	0	0	0	0	5	2	0	9	10	0	0	26	
Background Plus Project Conditions	88	138	38	77	1185	232	185	87	625	1353	2012	86	6106	

Intersection Number:	3
Traffix Node Number:	3905
Intersection Name:	Ringwood Avenue and Trade Zone Boulevard
Peak Hour:	PM
Count Date:	9/17/19

	Movements												
-	No	rth Appr	oach	Eas	st Appro	ach	Sou	th Appi	roach	West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Counts	14	1	4	7	440	60	123	1	323	337	1181	34	2525
Factored Counts - 1% Annual Growth	15	2	5	8	454	62	127	2	333	348	1217	36	2609
Milpitas BART Project Trips	0	0	0	0	-18	0	0	0	0	0	-11	0	-29
Existing Conditions	15	2	5	8	436	62	127	2	333	348	1206	36	2580
Approved Project Trips													
San Jose Approved Project Trips	0	0	0	0	72	5	0	0	0	7	30	0	114
Milpitas Approved Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Project Trips	0	0	0	0	72	5	0	0	0	7	30	0	114
Background Conditions	15	2	5	8	508	67	127	2	333	355	1236	36	2694
Proposed Project Trips	0	0	0	0	31	0	12	0	32	2	27	0	104
Existing Credit	0	0	0	0	-7	-1	-10	0	-44	-7	-7	0	-76
Net Project Trips	0	0	0	0	24	-1	2	0	-12	-5	20	0	28
Background Plus Project Conditions	15	2	5	8	532	66	129	2	321	350	1256	36	2722

Intersection Number: Traffix Node Number:	4 3663
Intersection Name:	Lundy Avenue and Trade Zone Boulevard
Peak Hour:	PM
Count Date:	9/13/18

					M	ovements	S						
	North Approach			Eas	st Appro	bach	Sou	th Appi	roach	Wes			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Counts	21	9	31	13	179	216	477	3	234	358	825	8	2374
Factored Counts - 1% Annual Growth	22	10	33	14	187	225	497	4	244	373	859	9	2477
Milpitas BART Project Trips	0	0	0	0	-18	0	0	0	0	0	-11	0	-29
Existing Conditions	22	10	33	14	169	225	497	4	244	373	848	9	2448
Approved Project Trips													
San Jose Approved Project Trips	1	0	5	12	20	34	11	0	17	24	24	2	150
Milpitas Approved Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Project Trips	1	0	5	12	20	34	11	0	17	24	24	2	150
Background Conditions	23	10	38	26	189	259	508	4	261	397	872	11	2598
Proposed Project Trips	0	0	0	0	0	10	1	0	0	35	27	31	104
Existing Credit	0	0	0	0	-4	-1	0	0	0	-20	-20	-7	-52
Net Project Trips	0	0	0	0	-4	9	1	0	0	15	7	24	52
Background Plus Project Conditions	23	10	38	26	185	268	509	4	261	412	879	35	2650

Intersection Number:	5
Traffix Node Number:	3381
Intersection Name:	Capitol Avenue and Trade Zone Boulevard/Cropley Avenue
Peak Hour:	PM
Count Date:	1/23/18

					М	ovement	s						
_	North Approach			Eas	East Approach			th Appr	oach	Wes	bach		
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Counts	23	1481	135	71	183	241	121	256	149	641	500	32	3833
Factored Counts - 1% Annual Growth	24	1542	141	74	191	251	126	267	156	668	521	34	3995
Milpitas BART Project Trips	1	16	5	1	0	1	2	9	-1	-3	-2	0	29
Existing Conditions	25	1558	146	75	191	252	128	276	155	665	519	34	4024
Approved Project Trips													
San Jose Approved Project Trips	1	33	4	1	3	3	19	38	16	13	17	1	149
Milpitas Approved Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Project Trips	1	33	4	1	3	3	19	38	16	13	17	1	149
Background Conditions	26	1591	150	76	194	255	147	314	171	678	536	35	4173
Proposed Project Trips	0	0	0	0	2	0	0	0	8	19	5	4	38
Existing Credit	0	0	0	0	-1	0	0	0	-4	-15	-4	-2	-26
Net Project Trips	0	0	0	0	1	0	0	0	4	4	1	2	12
Background Plus Project Conditions	26	1591	150	76	195	255	147	314	175	682	537	37	4185

Intersection Number:	6
Traffix Node Number:	3531
Intersection Name:	Lundy Avenue and Fortune Drive
Peak Hour:	PM
Count Date:	9/17/19

					М	ovement	s						
_	No	rth Appro	oach	Eas	t Appro	bach	Sou	uth Appr	oach	Wes	st Appro	bach	
Scenario:	RT	TH	LT	RT	ŤĤ	LT	RT	TH	LT	RT	ΤH	LT	Total
Counts	20	541	25	246	16	19	4	473	23	61	8	66	1502
Factored Counts - 1% Annual Growth	21	558	26	254	17	20	5	488	24	63	9	68	1553
Milpitas BART Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Conditions	21	558	26	254	17	20	5	488	24	63	9	68	1553
Approved Project Trips													
San Jose Approved Project Trips	2	10	0	2	0	0	0	19	4	0	0	0	37
Milpitas Approved Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Project Trips	2	10	0	2	0	0	0	19	4	0	0	0	37
Background Conditions	23	568	26	256	17	20	5	507	28	63	9	68	1590
Proposed Project Trips	40	5	0	0	0	0	0	0	2	0	0	1	48
Existing Credit	-19	-2	0	0	0	0	0	0	0	-1	0	0	-22
Net Project Trips	21	3	0	0	0	0	0	0	2	-1	0	1	26
Background Plus Project Conditions	44	571	26	256	17	20	5	507	30	62	9	69	1616

Intersection Number:	7
Traffix Node Number:	5803
Intersection Name:	Capitol Avenue/Great Mall Parkway and Montague Expressway *
Peak Hour:	PM
Count Date:	11/8/18

Background Plus Project Conditions	69	1319	634	397	1159	49	18	275	237	341	1761	185	6444
		Ũ	Ū	Ũ	-	U	0	Ū	0	0		0	0
Net Project Trips	1	0	0	0	4	0	3	0	0	0	1	0	- 20
Existing Credit	0	0	0	0	-4	0	-1	0	0	0	-14	-1	-20
Proposed Project Trips	1	0	0	0	8	0	4	0	0	0	15	1	29
Background Conditions	68	1319	634	397	1155	49	15	275	237	341	1760	185	6435
Total Approved Project Trips	0	0	0	0	187	0	0	0	0	0	208	0	395
Milpitas Approved Project Trips	0	0	0	0	56	0	0	0	0	0	62	0	118
San Jose Approved Project Trips	0	0	0	0	131	0	0	0	0	0	146	0	277
Approved Project Trips													
Existing Conditions	68	1319	634	397	968	49	15	275	237	341	1552	185	6040
Milpitas BART Project Trips	0	-15	3	-3	-3	-276	-158	21	158	17	17	0	-239
Factored Counts - 1% Annual Growth	68	1334	631	400	971	325	173	254	79	324	1535	185	6279
Counts	65	1281	606	384	933	312	166	244	75	311	1475	177	6029
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
	No	orth Appro	bach	Eas	st Appro	ach	Sou	uth Appr	oach	We	st Appro	bach	
					M	ovemen	ts						

Intersection Number:	8
Traffix Node Number:	5804
Intersection Name:	Milpitas Boulevard and Montague Expressway *
Peak Hour:	PM
Count Date:	11/8/18

					Mo	ovements	S						
_	No	rth Appr	oach	East Approach			Sou	th Appr	oach	We	ach		
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Counts	671	0	333	97	1078	9	0	0	0	0	1976	258	4422
Factored Counts - 1% Annual Growth	699	0	347	101	1122	10	0	0	0	0	2057	269	4605
Milpitas BART Project Trips	-77	76	-6	-1	-182	192	195	63	10	10	16	-55	241
Existing Conditions	622	76	341	100	940	202	195	63	10	10	2073	214	4846
Approved Project Trips													
San Jose Approved Project Trips	0	0	0	0	131	0	0	0	0	0	146	0	277
Milpitas Approved Project Trips	0	0	0	0	62	0	0	0	0	0	56	0	118
Total Approved Project Trips	0	0	0	0	193	0	0	0	0	0	202	0	395
Background Conditions	622	76	341	100	1133	202	195	63	10	10	2275	214	5241
Proposed Project Trips	2	0	0	0	6	0	0	0	0	0	14	5	27
Existing Credit	-1	0	0	0	-3	0	0	0	0	0	-11	-4	-19
Net Project Trips	1	0	0	0	3	0	0	0	0	0	3	1	8
Background Plus Project Conditions	623	76	341	100	1136	202	195	63	10	10	2278	215	5249

Intersection Number:	9
Traffix Node Number:	9999
Intersection Name:	Ringwood Avenue and Fortune Drive
Peak Hour:	PM
Count Date:	1/1/22

					М	ovement	S						
—	North Approach			East Approach			Sou	th Appro	oach	Wes			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Tota
Counts	10	552	10	44	5	10	75	393	5	10	10	10	1134
Factored Counts - 1% Annual Growth	10	552	10	45	5	10	75	393	5	10	10	10	1135
Milpitas BART Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Conditions	10	552	10	45	5	10	75	393	5	10	10	10	1135
Approved Project Trips													
San Jose Approved Project Trips	0	12	0	0	0	0	0	0	0	0	0	0	12
Milpitas Approved Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Project Trips	0	12	0	0	0	0	0	0	0	0	0	0	12
Background Conditions	10	564	10	45	5	10	75	393	5	10	10	10	1147
Proposed Project Trips	0	0	0	41	0	0	0	0	0	0	0	0	41
Existing Credit	0	0	-4	-36	0	0	0	0	0	0	0	0	-40
Net Project Trips	0	0	-4	5	0	0	0	0	0	0	0	0	1
Background Plus Project Conditions	10	564	6	50	5	10	75	393	5	10	10	10	1148

# **Appendix E** Intersection Level of Service Calculations

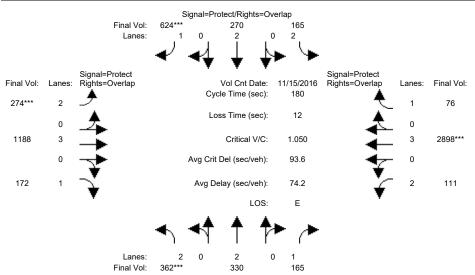
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Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Existing AM

# Intersection #5801: MONTAGUE EXPWY/MAIN ST

COMPARE



Signal=Protect/Rights=Overlap

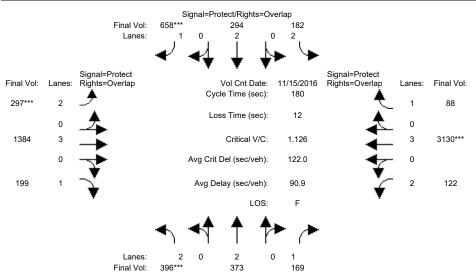
Approach: Movement:	L ·	- T ·	- R	L -	- т	– R	L ·	- т	– R	L -	- т	– R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:									4.0			
Volume Module												
	362		165	165	270					111	2898	76
Growth Adj:				1.00			1.00				1.00	
Initial Bse:				165			274				2898	76
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	362	330	165	165	270	624	274	1188	172	111	2898	76
User 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
PHF 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
PHF Volume:		330	165	165	270	624	274	1188	172	111	2898	76
Reduct Vol:			0	0	0	0	0	0	-	0	0	0
Reduced Vol:			165	165					172		2898	76
PCE Adj:	1.00	1.00	1.00		1.00			1.00			1.00	
MLF Adj:			1.00		1.00				1.00		1.00	
FinalVolume:				165						111		76
Saturation F												
	1900		1900	1000	1900	1900	1000	1900	1900	1000	1900	1900
Adjustment:			0.92		1.00			1.00			1.00	0.92
Lanes:			1.00		2.00			3.00			3.00	1.00
Final Sat.:	3150	3800	1750		3800			5700			5700	1750
Capacity Ana	lysis	Modul	e:						1	1		
Vol/Sat:				0.05	0.07	0.36	0.09	0.21	0.10	0.04	0.51	0.04
Crit Moves:	****					* * * *	* * * *				****	
Green Time:		41.1	57.2	24.8	46.2	61.1	14.9	86.0	105.7	16.1	87.2	112.0
Volume/Cap:	1.05	0.38	0.30	0.38	0.28	1.05	1.05	0.44	0.17	0.40	1.05	0.07
Delay/Veh: 1	142.3	59.0	46.6	71.2	53.7	110.1	152.0	31.1	17.1	78.3	78.5	13.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh: 1						110.1	152.0	31.1	17.1	78.3	78.5	13.5
LOS by Move:	F	E	D	E	D	F	F			E	E	В
HCM2kAvgQ:				5					4	3	60	2
Note: Queue i	report	ted is	the n	umber	of ca	ars per	r lane					

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Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Background AM

# Intersection #5801: MONTAGUE EXPWY/MAIN ST



Signal=Protect/Rights=Overlap

Approach: North Bo Movement: L - T	- R L	- T - R	L — Т	– R	L – T	– R
Min. Green: 7 10		10 10			7 10	
	4.0 4.0					
Volume Module: >> Count				1 - 0	111 0000	
Dabe VOI: 502 550	165 165		274 1188			
Growth Adj: 1.00 1.00		1.00 1.00			1.00 1.00	
	165 165				111 2898	
	0 0				0 0	-
		24 34			11 232	
	169 182				122 3130	
User Adj: 1.00 1.00		1.00 1.00			1.00 1.00	
PHF Adj: 1.00 1.00 PHF Volume: 396 373	1.00 1.00 169 182	1.00 1.00 294 658			1.00 1.00	
					122 3130	
		0 0	• •	-	0 0	0
	169 182				122 3130	
PCE Adj: 1.00 1.00		1.00 1.00			1.00 1.00	
5		1.00 1.00			1.00 1.00	
FinalVolume: 396 373		294 658			122 3130	
Saturation Flow Module:						
Sat/Lane: 1900 1900		1900 1900	1900 1900	1900	1900 1900	1900
		1.00 0.92			0.83 1.00	
		2.00 1.00			2.00 3.00	
Final Sat.: 3150 3800		3800 1750			3150 5700	
Capacity Analysis Modul			1 1	1	1	I
Vol/Sat: 0.13 0.10		0.08 0.38	0.09 0.24	0.11	0.04 0.55	0.05
Crit Moves: ****	0.10 0.00	****		0.11		
	55.2 24.1	45.0 60.1	15.1 88.7	108.8	14.2 87.8	111.9
Volume/Cap: 1.13 0.43		0.31 1.13			0.49 1.13	
Delay/Veh: 166.5 59.9		55.0 136.9			81.0 108	
		1.00 1.00			1.00 1.00	
AdjDel/Veh: 166.5 59.9		55.0 136.9			81.0 108	
LOS by Move: F E			F C		F F	
HCM2kAvgQ: 19 9	7 6				4 71	
Note: Queue reported is						

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Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + Project AM Intersection #5801: MONTAGUE EXPWY/MAIN ST Signal=Protect/Rights=Overlap 658\*\*\* Final Vol. 294 184 Lanes 2 ٥ Signal=Protect Rights=Overlap Signal=Protect 11/15/2016 Rights=Overlap Lanes: Final Vol: Final Vol: Lanes: Vol Cnt Date: Cycle Time (sec): 180 297\*\*\* 2 1 89 12 Loss Time (sec): 0 1406 Critical V/C: 1.129 3 3144\*\*\* Avg Crit Del (sec/veh): 122.9 0 199 Avg Delay (sec/veh): 914 2 124 LOS: 2 Lanes: 0 Final Vol: 396\* 373 172 Signal=Protect/Rights=Overlap Approach: North Bound South Bound East Bound West Bound L - T - R L - T - R L - T - R Movement: L – T – R 7 10 10 7 10 10 7 10 10 10 7 Min. Green: 10 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 Y+R: 4.0 4.0 4.0 4.0 Volume Module: >> Count Date: 15 Nov 2016 << 7:45-8:45 76 Base Vol: 362 330 165 165 270 624 274 1188 172 111 2898 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 165 270 Initial Bse: 362 330 165 624 274 1188 172 111 2898 76 3 0 2 0 0 0 22 2 14 1 Added Vol: 0 0 PasserByVol: 34 43 4 17 24 34 23 196 27 11 232 12 Initial Fut: 396 373 172 184 294 658 297 1406 199 124 3144 89 User Adi: PHF Adj: 1.00 1.00 1.00 1.00 PHF Volume: 396 373 172 184 294 658 297 1406 199 124 3144 89 0 0 0 0 0 0 0 0 0 0 Reduct Vol: 0 0 658 Reduced Vol: 396 373 184 294 297 1406 172 199 124 3144 89 1.00 1.00 1.00 1.00 1.00 1.00 1.00 PCE Adi: 1.00 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 FinalVolume: 396 373 172 184 294 658 297 1406 199 124 3144 89 Saturation Flow Module: Adjustment: 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92 2.00 2.00 1.00 2.00 2.00 1.00 2.00 3.00 1.00 2.00 3.00 1.00 Lanes: Final Sat.: 3150 3800 1750 3150 3800 1750 3150 5700 1750 3150 5700 1750 Capacity Analysis Module: Vol/Sat: 0.13 0.10 0.10 0.06 0.08 0.38 0.09 0.25 0.11 0.04 0.55 0.05 Crit Moves: \*\*\*\* \* \* \* \* \* \* \* \* \*\*\*\* Green Time: 20.1 40.7 54.9 24.2 44.9 60.0 15.0 88.8 108.9 14.2 88.0 112.2 Volume/Cap: 1.13 0.43 0.32 0.43 0.31 1.13 1.13 0.50 0.19 0.50 1.13 0.08 Delay/Veh: 167.6 60.1 48.5 72.3 55.1 138.0 177.0 30.8 15.9 81.1 109 13.5 1.00 1.00 1.00 1.00 1.00 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 AdjDel/Veh: 167.6 60.1 48.5 72.3 55.1 138.0 177.0 30.8 15.9 81.1 109 13.5 LOS by Move: F E D E E F F С В F F В 6 19 HCM2kAvqQ: 9 8 6 52 15 17 5 4 71 2

Note: Queue reported is the number of cars per lane.

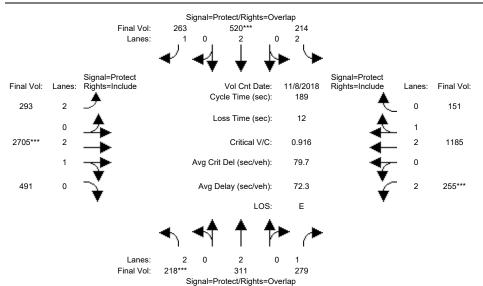
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Level Of Service Computation Report

2000 HCM Operations (Future Volume Alternative) Existing PM

Intersection #5801: MONTAGUE EXPWY/MAIN ST

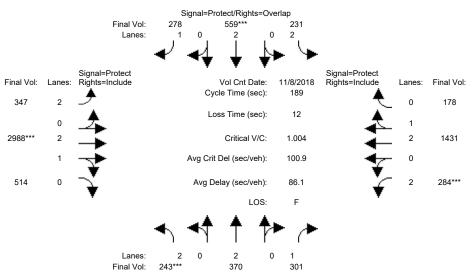


Approach: North Bound South Bound East Bound West Bound L - T - R L - T - R L - T - RMovement: L – T – R -----||-----||------|| 16 28 28 113 13 24 24 23 113 Min. Green: 12 102 102 5.8 Y+R: 6.0 5.7 5.7 6.2 5.5 5.5 5.6 5.8 6.0 5.8 5.8 Volume Module: >> Count Date: 8 Nov 2018 << 5:15 - 6:15 PM 214 520 255 1185 Base Vol: 218 311 279 263 293 2705 491 151 1.00 1.00 1.00 1.00 1.00 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 293 2705 Initial Bse: 218 311 279 214 520 263 491 255 1185 151 0 0 0 0 0 0 0 0 0 0 0 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 PasserBvVol: Initial Fut: 218 311 279 214 520 263 293 2705 491 255 1185 151 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 User Adi: PHF Adj: 1.00 1.00 1.00 1.00 214 520 491 255 1185 PHF Volume: 218 311 279 263 293 2705 151 0 0 0 0 0 0 0 Reduct Vol: 0 0 0 0 0 263 Reduced Vol: 218 311 214 520 293 2705 491 255 1185 279 151 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 PCE Adi: 1.00 1.00 1.00 1.00 1.00 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 FinalVolume: 218 311 279 214 520 263 293 2705 491 255 1185 1.51 -----||-----||------||-------|| Saturation Flow Module: 1900 1900 1900 1900 Adjustment: 0.83 1.00 0.92 0.83 1.00 0.92 0.83 0.99 0.95 0.83 0.99 0.95 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.52 0.48 2.00 2.65 0.35 Lanes: Final Sat.: 3150 3800 1750 3150 3800 1750 3150 4739 860 3150 4966 633 Capacity Analysis Module: Vol/Sat: 0.07 0.08 0.16 0.07 0.14 0.15 0.09 0.57 0.57 0.08 0.24 0.24 Crit Moves: \*\*\*\* \* \* \* \* \* \* \* \* \* \* \* \* Green Time: 14.3 25.5 42.2 17.0 28.2 53.0 24.7 118 117.8 16.7 110 109.7 Volume/Cap: 0.92 0.61 0.71 0.76 0.92 0.54 0.71 0.92 0.92 0.92 0.41 0.41 94.9 98.9 Delay/Veh: 123.1 79.1 73.9 58.8 92.3 70.1 70.1 123.7 42.1 42.1 1.00 1.00 1.00 1.00 1.00 1.00 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 AdjDel/Veh: 123.1 79.1 73.9 94.9 98.9 58.8 92.3 70.1 70.1 123.7 42.1 42.1 LOS by Move: F E E F F E F E E F D D 17 18 9 HCM2kAvqQ: 10 9 14 11 63 63 10 22 22 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background PM

# Intersection #5801: MONTAGUE EXPWY/MAIN ST



Signal=Protect/Rights=Overlap

Approach: Movement:	L ·	- T ·	– R	L ·	- т	– R	Ea L -	- Т	– R	L ·	- т	– R
Min. Green: Y+R:	13 6.0	24 5.7	24 5.7	16 6.2	28 5.5	28 5.5	23 5.6	113 5.8	113 5.8	12 6.0	102 5.8	102 5.8
Volume Module										0.5.5	1105	1 - 1
	218	<u> </u>	215	214	520	200		2705			1185	151
Growth Adj: Initial Bse:		1.00 311	1.00 279	214	1.00 520	1.00 263		1.00 2705	1.00 491		1.00 1185	1.00 151
	218		279	214	520 0	263	293		491	255	1185	151
			22	17		15	54	0 283		29	-	27
PasserByVol: Initial Fut:			301	231		278		2988			246 1431	27 178
	1.00		1.00		1.00	1.00		1.00			1.00	1.00
PHF Adj:			1.00		1.00	1.00		1.00			1.00	1.00
PHF Volume:	243	370	301	231	559	278		2988	514		1431	178
Reduct Vol:	243	370	0	231		270	0			204	1431	1/0
Reduced Vol:			301	231	559	278	-	2988		-	1431	178
PCE Adj:			1.00		1.00	1.00		1.00			1.00	
MLF Adj:			1.00		1.00	1.00		1.00			1.00	1.00
FinalVolume:			301			278		2988			1431	178
Saturation F							1 1			1 1		I
		1900		1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:			0.92		1.00	0.92		0.99			0.99	0.95
Lanes:			1.00		2.00	1.00		2.54			2.66	0.34
Final Sat.:			1750		3800	1750			822		4980	619
Capacity Ana	lysis	Module	e:									
Vol/Sat:	0.08	0.10	0.17	0.07	0.15	0.16	0.11	0.63	0.63	0.09	0.29	0.29
Crit Moves:	* * * *				* * * *			****		* * * *		
Green Time:	14.5	25.5	42.4	17.0	28.0	52.7	24.7	118	117.6	16.9	110	109.8
Volume/Cap:	1.01	0.72	0.77	0.82	0.99	0.57	0.84	1.01	1.01	1.01	0.49	0.49
Delay/Veh: 1	146.6	83.3	77.4	100.9	116	60.0	102.6	91.5	91.5	146.7	45.0	45.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh: 1	146.6	83.3	77.4	100.9	116	60.0	102.6	91.5	91.5	146.7	45.0	45.0
LOS by Move:	F	F	Ε	F	F	E	F	F	F	F	D	D
HCM2kAvgQ:	12	11	19	10	20	15	14	75	75	12	27	27
Note: Queue	repor	ted is	the r	number	of ca	rs pe	r lane	•				

San Jose, CA

Hexagon Transportation Consultants Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + Project PM Intersection #5801: MONTAGUE EXPWY/MAIN ST Signal=Protect/Rights=Overlap Final Vol: 278 559\*\*\* 232 Lanes: ٥ 2 Signal=Protect Rights=Include Signal=Protect Rights=Include Lanes: Final Vol: Final Vol: Lanes: Vol Cnt Date: 11/8/2018 Cycle Time (sec): 189 179 347 2 0 12 Loss Time (sec): 0 1 2996\*\*\* Critical V/C: 1.005 2 1439 Avg Crit Del (sec/veh): 1014 0 285\*\*\* 514 Avg Delay (sec/veh): 864 2 LOS: 2 Lanes: 0 0 Final Vol: 243\* 370 302 Signal=Protect/Rights=Overlap Approach: North Bound South Bound East Bound West Bound L - T - R L - T - R L - T - RMovement: L – T – R -----||-----||------|| 16 28 28 113 13 24 24 23 113 Min. Green: 12 102 102 5.8 Y+R: 6.0 5.7 5.7 6.2 5.5 5.5 5.6 5.8 6.0 5.8 5.8 Volume Module: >> Count Date: 8 Nov 2018 << 5:15 - 6:15 PM 214 520 Base Vol: 218 311 279 263 293 2705 491 255 1185 151 1.00 1.00 1.00 1.00 1.00 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Initial Bse: 218 311 214 520 255 1185 279 263 293 2705 491 151 1 0 0 0 0 8 0 1 8 1 Added Vol: 1 0 PasserByVol: 25 59 22 17 39 15 54 283 23 29 246 27 Initial Fut: 243 370 302 232 559 278 347 2996 285 1439 514 179 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 User Adi: 1.00 1.00 1.00 1.00 1.00 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 PHF Volume: 243 370 232 559 302 278 347 2996 514 285 1439 179 0 0 0 0 0 0 0 0 Reduct Vol: 0 0 0 0 278 Reduced Vol: 243 370 232 559 347 2996 285 1439 302 514 179 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 PCE Adi: 1.00 1.00 1.00 1.00 1.00 1.00 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 FinalVolume: 243 370 302 232 559 278 347 2996 514 285 1439 179 -----||-----||------||-------|| Saturation Flow Module: 1900 1900 1900 1900 Adjustment: 0.83 1.00 0.92 0.83 1.00 0.92 0.83 0.99 0.95 0.83 0.99 0.95 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.54 0.46 2.00 2.66 0.34 Lanes: Final Sat.: 3150 3800 1750 3150 3800 1750 3150 4779 820 3150 4980 619 Capacity Analysis Module: Vol/Sat: 0.08 0.10 0.17 0.07 0.15 0.16 0.11 0.63 0.63 0.09 0.29 0.29 Crit Moves: \*\*\*\* \* \* \* \* \* \* \* \* \* \* \* \* Green Time: 14.5 25.5 42.4 17.0 28.0 52.8 24.8 118 117.6 17.0 110 109.8 Volume/Cap: 1.01 0.72 0.77 0.82 0.99 0.57 0.84 1.01 1.01 1.01 0.50 0.50 77.6 101.5 116 Delay/Veh: 147.2 83.4 60.0 102.6 92.1 92.1 147.2 45.0 45.0 1.00 1.00 1.00 1.00 1.00 1.00 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 AdjDel/Veh: 147.2 83.4 77.6 101.5 116 60.0 102.6 92.1 92.1 147.2 45.0 45.0 LOS by Move: F F E F F E F F F F D D 20 11 19 HCM2kAvqQ: 12 10 15 14 75 75 12 27 27

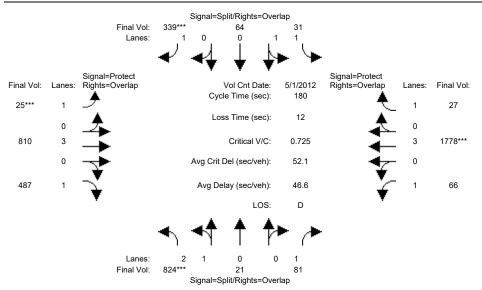
Note: Queue reported is the number of cars per lane.

San Jose, CA Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Existing AM

# Intersection #5802: MONTAGUE EXPWY/TRADE ZONE BLVD



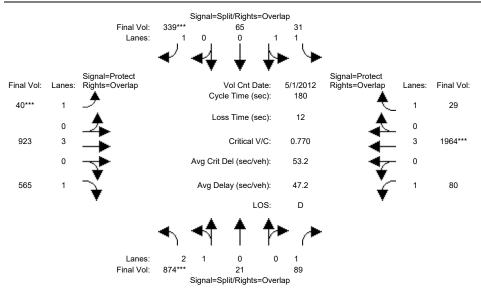
Approach: North Bc Movement: L - T 	– R L	- T - R	L - T -	R L -	T – R
Min. Green: 10 10 Y+R: 4.0 4.0	10 10 4.0 4.0	0 10 10 0 4.0 4.0	7 10 4.0 4.0	10 7 4.0 4.0	10 10 4.0 4.0
Volume Module: >> Count					
		64 339		487 66 1	778 27
Growth Adj: 1.00 1.00		1.00 1.00		1.00 1.00 1	
Initial Bse: 824 21	81 31		25 810	487 66 1	
Added Vol: 0 0	0 0			0 0	0 0
	0 0		0 0	0 0	0 0
–	81 31	. 64 339	25 810	487 66 1	778 27
User 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
PHF 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
PHF Volume: 824 21	81 31	. 64 339	25 810	487 66 1	.778 27
Reduct Vol: 0 0	0 0	0 0	0 0	0 0	0 0
Reduced Vol: 824 21	81 31	. 64 339	25 810	487 66 1	.778 27
	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00 1	.00 1.00
MLF Adj: 1.00 1.00		1.00 1.00		1.00 1.00 1	.00 1.00
FinalVolume: 824 21		. 64 339	25 810		
Saturation Flow Module:					
Sat/Lane: 1900 1900		1900 1900		1900 1900 1	
		2 1.00 0.92		0.92 0.92 1	
		1.00 1.00		1.00 1.00 3	
Final Sat.: 4826 123		) 1900 1750		1750 1750 5	
Capacity Analysis Modul					
Vol/Sat: 0.17 0.17		2 0.03 0.19	0.01 0.14	0.28 0.04 0	.31 0.02
Crit Moves: ****	0.05 0.02	****	****		***
0110 110 000.	61.6 39.1	. 39.1 46.1	7.0 67.3 1	10 5 18 4 7	8.8 117.9
Volume/Cap: 0.71 0.71		8 0.16 0.76		0.45 $0.37$ (	
Delay/Veh: 64.8 64.8		2 57.2 69.0		18.9 76.6 4	
		1.00 1.00		1.00 1.00 1	
5		2 57.2 69.0		18.9 76.6 4	
LOS by Move: E E	D E		F D		D B
HCM2kAvgQ: 16 16	3 1		1 10	15 4	
Note: Queue reported is			lane.		

San Jose, CA Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Background AM

# Intersection #5802: MONTAGUE EXPWY/TRADE ZONE BLVD



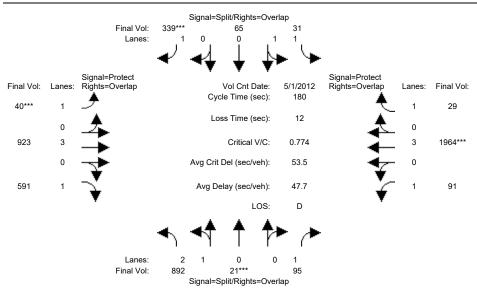
Movement: L -	rth Bound - T - R	L – T	– R	L – T	- R	L – T	– R
Min. Green: 10 Y+R: 4.0	$\begin{array}{ccc} & & & & & \\ & & & 10 & & 10 \\ & & 4 \cdot 0 & & 4 \cdot 0 \end{array}$	10 10 4.0 4.0	10	7 10 4.0 4.0	10	7 10 4.0 4.0	10
Volume Module: >>					I	I	I
Base Vol: 824	21 81	31 64		25 810	487	66 1778	27
Growth Adj: 1.00		1.00 1.00		1.00 1.00		1.00 1.00	
Initial Bse: 824	21 81	31 64	339	25 810	487	66 1778	27
Added Vol: 0	0 0	0 0	0	0 0	0	0 0	0
PasserByVol: 50	0 8	0 1	0	15 113	78	14 186	2
Initial Fut: 874	21 89	31 65	339	40 923	565	80 1964	29
User 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
PHF Adj: 1.00		1.00 1.00	1.00	1.00 1.00		1.00 1.00	
PHF Volume: 874	21 89	31 65	339	40 923		80 1964	
Reduct Vol: 0	0 0	0 0	0	0 0	-	0 0	-
Reduced Vol: 874	21 89	31 65		40 923		80 1964	
PCE Adj: 1.00		1.00 1.00		1.00 1.00		1.00 1.00	
MLF Adj: 1.00		1.00 1.00		1.00 1.00		1.00 1.00	
FinalVolume: 874	21 89	31 65		40 923		80 1964	
Saturation Flow Mo							
Sat/Lane: 1900		1900 1900		1900 1900		1900 1900	
Adjustment: 0.87		0.92 1.00		0.92 1.00		0.92 1.00	
Lanes: 2.94		1.00 1.00		1.00 3.00		1.00 3.00	
Final Sat.: 4833		1750 1900		1750 5700		1750 5700	
Capacity Analysis							
Vol/Sat: 0.18		0.02 0.03	0.19	0.02 0.16	0.32	0.05 0.34	0.02
Crit Moves: ****	0.10 0.03	0.02 0.03	****	****	0.52	****	
Green Time: 42.8	42.8 62.3	36.6 36.6	43.6	7.0 69.1	111 9	19.5 81.6	
Volume/Cap: 0.76		0.09 0.17	0.80	0.59 0.42		0.42 0.76	
Delay/Veh: 66.8		58.1 59.2	74.3	97.8 40.9		76.5 42.4	
User DelAdj: 1.00		1.00 1.00	1.00	1.00 1.00		1.00 1.00	
AdjDel/Veh: 66.8		58.1 59.2		97.8 40.9		76.5 42.4	
LOS by Move: E	E D	E E		F I		E D	
HCM2kAvqO: 18	18 3	1 3		2 12		4 29	
Note: Queue report	ed is the n	umber of c	ars per	lane.			

San Jose, CA Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Background + Project AM

Intersection #5802: MONTAGUE EXPWY/TRADE ZONE BLVD



Approach: North Movement: L -	F-RL	- T - R	L – T	- R I	- T - 1	R
Min. Green: 10 2 Y+R: 4.0 4	10 10 10 .0 4.0 4.0	10 10 4.0 4.0	7 10 4.0 4.0	10 4.0 4	7 10 1 .0 4.0 4	10 .0
Volume Module: >> Cou						
	21 81 31			487	66 1778	27
Growth Adj: 1.00 1.0		1.00 1.00			00 1.00 1.0	
Initial Bse: 824			25 810	487	66 1778	27
Added Vol: 18	0 6 0	0 0	0 0	26	11 0	0
PasserByVol: 50	0 8 0		15 113	78	14 186	2
	21 95 31	65 339	40 923	591	91 1964 2	29
User Adj: 1.00 1.0	00 1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.	00 1.00 1.0	00
PHF Adj: 1.00 1.0	0 1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.	00 1.00 1.0	00
	21 95 31	65 339	40 923	591	91 1964 2	29
Reduct Vol: 0	0 0 0	0 0	0 0	0	0 0	0
Reduced Vol: 892	21 95 31	65 339	40 923	591	91 1964 2	29
PCE Adj: 1.00 1.0		1.00 1.00	1.00 1.00	1.00 1.	00 1.00 1.0	00
MLF Adj: 1.00 1.0	0 1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.	00 1.00 1.0	00
FinalVolume: 892 2			40 923			29
Saturation Flow Modul						
Sat/Lane: 1900 190		1900 1900	1900 1900		00 1900 190	
Adjustment: 0.87 0.9		1.00 0.92	0.92 1.00		92 1.00 0.9	
Lanes: 2.94 0.0		1.00 1.00	1.00 3.00		00 3.00 1.0	
Final Sat.: 4835 11		1900 1750	1750 5700		50 5700 17	
Capacity Analysis Moo		0.03 0.19	0.02 0.16	0.24 0	05 0.34 0.0	0.0
Vol/Sat: 0.18 0.1		0.03 0.19	U.UZ U.I6 ****	0.34 0.	05 0.34 0.0	UΖ
Crit Moves: *** Green Time: 43.4 43		36.5 43.5	7.0 66.7	110 1 01	.4 81.1 117	C
Volume/Cap: 0.76 0.7		0.17 0.80	0.59 0.44		44 0.76 0.0	
Delay/Veh: 66.5 66		59.4 74.8	97.8 42.7		.2 42.9 11	
User DelAdj: 1.00 1.0		1.00 1.00	97.8 42.7		00 1.00 1.0	
AdjDel/Veh: 66.5 66		59.4 74.8	97.8 42.7		.2 42.9 11	
LOS by Move: E			97.842.7 F D		E D	.0 В
HCM2kAvqQ: 18			2 12	20	5 29	1
Note: Queue reported				20	5 25	-

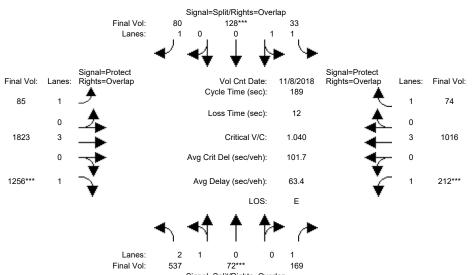
Traffix 8.0.0715

San Jose, CA Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Existing PM

# Intersection #5802: MONTAGUE EXPWY/TRADE ZONE BLVD



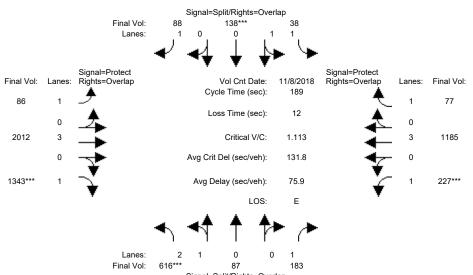
Signal=Split/Rights=Overlap

						und					est Bo	
Movement:											- T	
Min. Green:		30				 14					109	
Y+R:	5.3				5.4			5.8			5.8	5.8
Volume Module										1 1		I
Base Vol:	537	72	169	33	128	80		1823		212	1016	74
Growth 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
Initial Bse:	537	72	169	33	128	80	85	1823	1256	212	1016	74
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	537	72	169	33	128	80	85	1823	1256	212	1016	74
User 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
PHF 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
PHF Volume:	537	72	169	33	128	80	85	1823	1256	212	1016	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	537	72	169	33	128	80	85	1823	1256	212	1016	74
PCE 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
MLF 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
FinalVolume:			169	33		80		1823	1256		1016	74
Saturation F	low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.67	0.95	0.92	1.38	0.50	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:			1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:			1750		950	1750		5700			5700	1750
Capacity Ana	-											
Vol/Sat:			0.10	0.01	0.13	0.05	0.05	0.32			0.18	0.04
					* * * *				* * * *			
Green Time:			53.0		24.1	39.0			131.0			132.1
Volume/Cap:			0.34		1.06	0.22		0.60			0.31	0.06
Delay/Veh:			54.6	72.9	171	62.7	92.5	39.1	82.7	143.2	28.4	14.8
User DelAdj:			1.00		1.00	1.00		1.00			1.00	1.00
AdjDel/Veh:			54.6	72.9	171	62.7	92.5	39.1	82.7	143.2	28.4	14.8
LOS by Move:	F	F	D	Ε		E	F	D	F	F	С	В
HCM2kAvgQ:		19	8	2	11	4	5		83	16	13	2
Note: Queue	report	ted is	the n	umber	of ca	rs per	lane	•				

San Jose, CA Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background PM

# Intersection #5802: MONTAGUE EXPWY/TRADE ZONE BLVD



Signal=Split/Rights=Overlap

						und					est Bo	
Movement:											- T	
Min. Green:		30				 14					109	-
Y+R:	5.3				5.4	5.4		5.8			5.8	5.8
Volume Module												
Base Vol:	537	72	169	33	128	80	85	1823	1256	212	1016	74
Growth 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
Initial Bse:	537	72	169	33	128	80	85	1823	1256	212	1016	74
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	79	15	14	5	10	8	1	189	87	15	169	3
Initial Fut:	616	87	183	38	138	88	86	2012	1343	227	1185	77
User 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
PHF 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
	616	87	183	38	138	88	86	2012	1343	227	1185	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	616	87	183	38	138	88	86	2012	1343	227	1185	77
PCE 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
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
FinalVolume:		87	183	38	138	88		2012	1343		1185	77
Saturation F												
Sat/Lane:			1900		1900	1900		1900			1900	1900
Adjustment:			0.92		0.50	0.92		1.00			1.00	0.92
Lanes:			1.00	1.00		1.00		3.00			3.00	1.00
Final Sat.:			1750	2625		1750		5700			5700	1750
Capacity Anal	-			0 01	0 1 5	0 0 5	0 05	0 05	0 77	0 1 0	0 01	0 0 4
Vol/Sat:	U.18 ****	0.18	0.10	0.01	0.15 ****	0.05	0.05	0.35	0.77		0.21	0.04
0110 110 000.		20.0	F 0 0	04 5		20.0	14 0	1 0 1			100	1 2 0 0
	30.0		53.0		24.5	39.3			131.0			132.2
· 1	1.12		0.37		1.12	0.24		0.66			0.36	0.06
Delay/Veh: 1			55.1	72.7	190	62.7				163.2		
User DelAdj:			1.00	1.00		1.00			1.00		1.00	
AdjDel/Veh: 1			55.1	72.7		62.7				163.2		14.8
LOS by Move:			E	E		E	F	D	F	F	С	B
HCM2kAvgQ:		25	9	, 2	12	4	5		95	18	16	2
Note: Queue	report	ted is	the n	umber	ot ca	rs per	⊥ane	•				

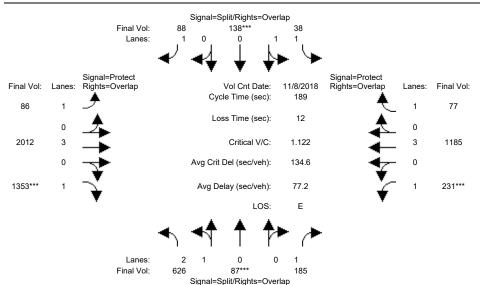
San Jose, CA

Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Background + Project PM

Intersection #5802: MONTAGUE EXPWY/TRADE ZONE BLVD



Approach: North Bound South Bound East Bound West Bound  $L - T - R \quad L - T - R$ L – T – R Movement: L – T – R -----||-----||------|| 14 14 14 30 30 30 15 101 101 23 109 109 Min. Green: Y+R: 5.3 5.3 5.3 5.4 5.4 5.4 4.9 5.8 5.8 4.6 5.8 5.8 Volume Module: >> Count Date: 8 Nov 2018 << 5:00 - 6:00 PM Base Vol: 537 72 169 33 128 80 85 1823 1256 212 1016 74 Growth 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 33 128 212 1016 Initial Bse: 537 72 169 80 85 1823 1256 74 10 0 2 0 0 0 0 0 10 4 0 0 Added Vol: 79 15 14 5 10 8 1 189 87 15 169 3 PasserBvVol: Initial Fut: 626 87 185 38 138 88 86 2012 1353 231 1185 77 1.00 1.00 1.00 User Adi: PHF Adj: 1.00 1.00 1.00 38 138 231 1185 PHF Volume: 626 87 185 88 86 2012 1353 77 0 0 0 0 0 0 0 0 0 0 0 Reduct Vol: 0 Reduced Vol: 626 87 185 38 138 88 86 2012 1353 77 231 1185 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 PCE Adi: 1.00 1.00 1.00 1.00 1.00 1.00 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 FinalVolume: 626 87 185 38 138 88 86 2012 1353 231 1185 77 Saturation Flow Module: Adjustment: 0.67 0.95 0.92 1.38 0.50 0.92 0.92 1.00 0.92 0.92 1.00 0.92 2.73 0.27 1.00 1.00 1.00 1.00 3.00 1.00 3.00 1.00 3.00 1.00 Lanes: Final Sat.: 3472 482 1750 2625 950 1750 1750 5700 1750 1750 5700 1750 Capacity Analysis Module: Vol/Sat: 0.18 0.18 0.11 0.01 0.15 0.05 0.05 0.35 0.77 0.13 0.21 0.04 \*\*\*\* \* \* \* \* Crit Moves: \* \* \* \* \* \* \* \* Green Time: 30.2 30.2 53.2 24.4 24.4 39.2 14.8 101 131.2 23.0 108 132.0 Volume/Cap: 1.13 1.13 0.38 0.11 1.13 0.24 0.63 0.66 1.11 1.08 0.37 0.06 72.8 193 Delay/Veh: 155.5 156 55.0 62.9 93.3 41.3 110.1 169.1 29.7 14.9 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 User DelAdj: 1.00 1.00 1.00 1.00 AdjDel/Veh: 155.5 156 55.0 72.8 193 62.9 93.3 41.3 110.1 169.1 29.7 14.9 LOS by Move: F F Ε E F E F D F F С В 12 20 9 2 5 5 97

Note: Queue reported is the number of cars per lane.

25

HCM2kAvqQ:

30

18

16

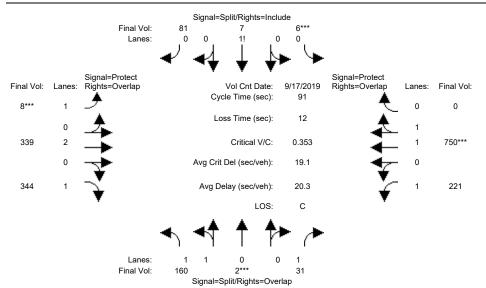
2

San Jose, CA Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Existing AM

# Intersection #3905: RINGWOOD AVE/TRADE ZONE BLVD



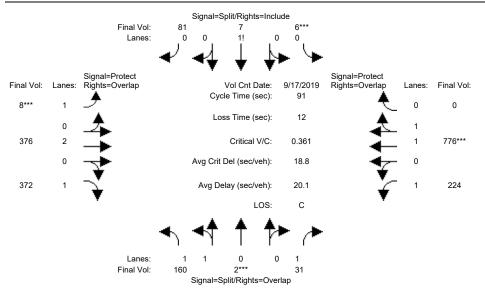
Approach: Movement:	L ·	- T ·	- R	L ·	- т	ound - R	L -	- т	– R	L -	т	– R
		10						10		7		-
Y+R:		4.0	4.0			4.0			4.0		4.0	4.0
Volume Module												
	160	2	31	6			8		344	221	750	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	160	2	31	6	7	81	8	339	344	221	750	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	160	2	31	6	7	81	8	339	344	221	750	0
User 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
PHF 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
PHF Volume:	160	2	31	6	7	81	8	339	344	221	750	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	160	2	31	6	7	81	8	339	344	221	750	0
PCE 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
MLF Adj:	1.00		1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00
FinalVolume:		2		6		81		339		221	750	0
Saturation Fl				1000	1000	1000	1000	1000	1000	1000	1000	1000
Sat/Lane:				1900		1900		1900	1900	1900 0.92		1900
2			0.92 1.00		0.92 0.07	0.92 0.87		1.00 2.00	0.92 1.00	1.00		0.92 0.00
Lanes: Final Sat.:			1750	112		1508		2.00	1750	1750		0.00
Final Sat.:												0
Capacity Anal				I		1	1		I	I		I
Vol/Sat:	-		0.02	0.05	0.05	0.05	0.00	0.09	0.20	0.13	0.20	0.00
				****			****				****	
Green Time:			36.1	12.8	12.8	12.8	7.0	30.1	41.0	25.2	48.3	0.0
		0.38	0.04		0.38	0.38		0.27	0.44	0.46		0.00
Delay/Veh:			16.9		36.5	36.5		22.5	17.5	27.9	12.7	0.0
User DelAdj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:			16.9		36.5	36.5		22.5	17.5	27.9		0.0
LOS by Move:			В	D	D	D	D	С	В	С	В	A
HCM2kAvgQ:	3		1	3	3	3	0	3	7	6	6	0
Note: Queue r	report	ted is	the n	umber	of ca	irs per	lane	•				

San Jose, CA Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Background AM

# Intersection #3905: RINGWOOD AVE/TRADE ZONE BLVD



Approach: Movement:	L -	Bound T – R	L	- т	– R	L ·	- т	– R	L -	- т	– R
Min. Green:	10	10 10	10	10	10	7	10	10	7	10	10
Y+R:		4.0		4.0	4.0		4.0			4.0	4.0
Volume Modul											
Base Vol:	160	2 31		ср 201 7	81	8	339	344	221	750	0
Growth Adj:	1.00 1.			1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:	160	2 31	6	7	81	8	339	344	221	750	0
Added Vol:	0	0 0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0 0	0	0	0	0	37	28	3	26	0
Initial Fut:	160	2 31	6	7	81	8	376	372	224	776	0
User 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
PHF Adj:				1.00	1.00		1.00	1.00	1.00		1.00
PHF Volume:	160	2 31		7	81	8	376	372	224	776	0
	0	0 0		0	0	0	0	0	0	0	0
Reduced Vol:		2 31		7	81	8	376	372	224	776	0
PCE Adj:				1.00	1.00		1.00	1.00	1.00		1.00
MLF Adj:				1.00	1.00		1.00	1.00	1.00		1.00
FinalVolume:		2 31			81		376	372	224	776	0
Saturation F	1										
Sat/Lane:		900 1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
	0.93 0.			0.92	0.92		1.00	0.92	0.92		0.92
Lanes:	1.98 0.			0.07	0.87		2.00	1.00	1.00		0.00
Final Sat.:		44 1750		130	1508		3800	1750	1750		0
Capacity Ana	lysis Mc	dule:									
Vol/Sat:				0.05	0.05		0.10	0.21	0.13		0.00
		* * *	* * * *			* * * *				* * * *	
Green Time:	10.6 10			12.5	12.5		31.6	42.2	24.2		0.0
· · · ·	0.39 0.			0.39	0.39		0.28	0.46	0.48		0.00
Delay/Veh:				36.8	36.8		21.6	17.0	28.9		0.0
User DelAdj:				1.00	1.00		1.00	1.00	1.00		1.00
AdjDel/Veh: LOS by Move:		7.8 17.7 D B		36.8 D	36.8 D	39.1 D	21.6 C	17.0 В	28.9 C	12.5 B	0.0 A
HCM2kAvqQ:	Д З	р в 3 1			л Д	0	-	в 7	6	в 7	A 0
Note: Queue			-	-	-	Ŭ	-	/	0	/	U
More. Queue	reported	LTS CHE	number	OT CC	TP DET	тапе	•				

\_San Jose, CA

Hexagon Transportation Consultants Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + Project AM Intersection #3905: RINGWOOD AVE/TRADE ZONE BLVD Signal=Split/Rights=Include 6\*\*\* Final Vol: 81 7 Lanes: 11 Ο Λ Signal=Protect Rights=Overlap Signal=Protect Rights=Overlap Lanes: Final Vol: Final Vol: Lanes: Vol Cnt Date: 9/17/2019 Cycle Time (sec): 91 8\*\*\* 0 0 12 Loss Time (sec): 1 426 Critical V/C: 0.369 1 789\*\*\* 0 Avg Crit Del (sec/veh): 191 0 360 Avg Delay (sec/veh): 20.3 1 222 С LOS: 0 Lanes: n Final Vol: 171 2 57 Signal=Split/Rights=Overlap Approach: North Bound South Bound East Bound West Bound L - T - R L - T - R L - T - RMovement: L – T – R 10 10 10 7 10 10 10 10 10 10 7 Min. Green: 10 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 Y+R: 4.0 4.0 4.0 4.0 Volume Module: >> Count Date: 17 Sep 2019 << 7:45-8:45 AM 221 750 Base Vol: 160 2 31 6 7 81 8 339 344 0 1.00 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 6 7 221 750 Initial Bse: 160 2 31 81 8 339 344 0 -12 0 26 0 0 0 0 50 -2 0 Added Vol: 11 13 PasserByVol: 0 0 0 0 0 0 0 37 28 3 26 0 Initial Fut: 171 57 7 81 222 789 2 6 8 426 360 0 1.00 1.00 1.00 User Adi: PHF Adj: 1.00 1.00 1.00 1.00 81 PHF Volume: 171 2 57 6 7 222 789 0 8 426 360 0 0 0 0 0 0 0 0 0 0 Reduct Vol: 0 0 57 8 426 Reduced Vol: 171 2 6 7 360 222 789 81 0 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 PCE Adi: 1.00 1.00 1.00 1.00 1.00 1.00 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 0 FinalVolume: 171 2 57 6 7 81 8 426 360 222 789 Saturation Flow Module: Adjustment: 0.93 0.95 0.92 0.92 0.92 0.92 0.92 1.00 0.92 0.92 0.97 0.92 Lanes: 1.98 0.02 1.00 0.06 0.07 0.87 1.00 2.00 1.00 1.00 2.00 0.00 Final Sat.: 3509 41 1750 112 130 1508 1750 3800 1750 1750 3700 0 Capacity Analysis Module: Vol/Sat: 0.05 0.05 0.03 0.05 0.05 0.05 0.00 0.11 0.21 0.13 0.21 0.00 Crit Moves: \*\*\*\* \* \* \* \* \* \* \* \* \* \* \* \* Green Time: 11.1 11.1 36.0 12.3 12.3 12.3 7.0 30.8 41.9 24.9 48.6 0.0 Volume/Cap: 0.40 0.40 0.08 0.40 0.40 0.40 0.06 0.33 0.45 0.46 0.40 0.00 37.1 37.1 17.2 0.0 Delav/Veh: 37.5 37.5 37.1 39.1 22.6 17.1 28.2 12.7 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 AdjDel/Veh: 37.5 37.5 17.2 37.1 37.1 37.1 39.1 22.6 17.1 28.2 12.7 0.0 LOS by Move: D D В D D D D С В С В Α HCM2kAvqQ: 3 3 1 3 3 3 0 4 7 6 7 0

Note: Queue reported is the number of cars per lane.

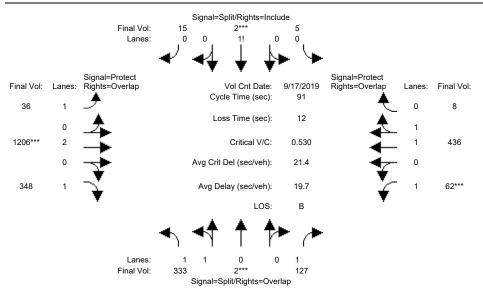
Traffix 8.0.0715

San Jose, CA Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Existing PM

# Intersection #3905: RINGWOOD AVE/TRADE ZONE BLVD

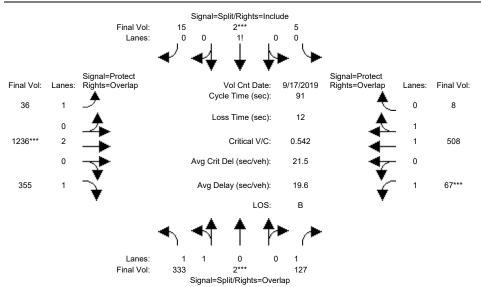


Approach: Movement:	L ·	- т -	- R	L ·	- т	– R	L ·	- т	– R	L -	- т	– R
		10							10	7		
Y+R:		4.0	4.0			4.0			4.0		4.0	
Volume Module												
	333	2	127	5					348	62	436	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	333	2	127	5	2	15	36	1206	348	62	436	8
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0		0	0	0	0	0	0	0
Initial Fut:	333	2	127	5	2	15	36	1206	348	62	436	8
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF 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
PHF Volume:	333	2	127	5	2	15	36	1206	348	62	436	8
Reduct Vol:		0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	333	2	127	5	2	15	36	1206	348	62	436	8
PCE 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
MLF 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
FinalVolume:								1206	348		436	8
Saturation F				1000	1000	1000	1000	1000	1000	1000	1 0 0 0	1000
		1900		1900		1900		1900	1900		1900	1900
Adjustment:			0.92		0.92	0.92		1.00	0.92		0.97	0.95
Lanes:			1.00		0.09	0.68		2.00	1.00		1.96	0.04
Final Sat.:			1750	398		1193		3800	1750		3633	67
Capacity Ana				1		1	1		I	I		I
Vol/Sat:	-			0.01	0.01	0.01	0.02	0.32	0.20	0.04	0.12	0.12
Crit Moves:		* * * *			* * * *			* * * *		* * * *		
Green Time:				10.0	10.0	10.0	21.4	47.8	62.0	7.0	33.4	43.4
Volume/Cap:			0.31		0.11	0.11		0.60	0.29		0.33	0.25
Delay/Veh:			29.3	36.8	36.8	36.8	27.3	15.6	5.9	42.7	20.9	14.2
User DelAdj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:					36.8	36.8		15.6	5.9		20.9	14.2
LOS by Move:			С	D	D	D	С	В	A		С	В
-	6		3	1	1	1	1	11	4	2	5	4
Note: Queue :	report	ted is	the n	umber	of ca	ars per	lane	•				

San Jose, CA Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background PM

Intersection #3905: RINGWOOD AVE/TRADE ZONE BLVD



Movement:	L – Т	– R L	- T - R	East Bour L - T -	R L	- T - R
Min. Green: Y+R:	10 10 4.0 4.0	10 10 4.0 4.0	10 10 10 4.0 4.0	7 10 4.0 4.0	10 4.0 4.	7 10 10 0 4.0 4.0
Volume Module Base Vol: Growth Adj: Initial Bse: Added Vol: PasserByVol: Initial Fut: User Adj: PHF Adj: PHF Volume:	e: >> Count 333 2 1.00 1.00 333 2 0 0 0 0 333 2 1.00 1.00 1.00 1.00 333 2 0 0	Date: 17 S 127 S 1.00 1.00 127 S 0 0 127 S 1.00 1.00 1.00 1.00 127 S 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Sep 2019 << 9 5 2 15 0 1.00 1.00 5 2 15 0 0 0 5 2 15 0 1.00 1.00 0 1.00 1.00 5 2 15	5:00-6:00 PM 36 1206 1.00 1.00 2 36 1206 0 0 0 30 36 1236 1.00 1.00 2 1.00 1.00 2 36 1236	348 6 1.00 1.0 348 6 0 7 355 6 1.00 1.0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
PCE Adj: MLF Adj: FinalVolume:	1.00 1.00 1.00 1.00 333 2	1.00 1.00 1.00 1.00 127 5	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1.00 1.00 1 1.00 1.00 1 36 1236	1.00 1.0 1.00 1.0 355 6	0 1.00 1.00 0 1.00 1.00 7 508 8
Saturation Fi Sat/Lane: Adjustment: Lanes: Final Sat.:	low Module: 1900 1900 0.93 0.95 1.99 0.01 3529 21	1900 1900 0.92 0.92 1.00 0.23 1750 398	0 1900 1900 2 0.92 0.92 3 0.09 0.68 3 159 1193	0.92 1.00 (	1900 190 0.92 0.9 1.00 1.0 1750 175	0 1900 1900 2 0.97 0.95 0 1.97 0.03 0 3643 57
Capacity Anal Vol/Sat: Crit Moves: Green Time: Volume/Cap: Delay/Veh: User DelAdj: AdjDel/Veh: LOS by Move: HCM2kAvgQ: Note: Queue D	lysis Modul 0.09 0.09 **** 13.9 13.9 0.62 0.62 38.2 38.2 1.00 1.00 38.2 38.2 D D 6 6	e: 0.07 0.01 20.9 10.0 0.32 0.11 29.5 36.8 1.00 1.00 29.5 36.8 C I 3 1	1       0.01       0.01         ****       10.0       10.0         1       0.11       0.11         3       36.8       36.8         0       1.00       1.00         3       36.8       36.8         0       D       D         0       D       D         1       1       1	0.02 0.33 ( **** 19.6 48.1 ( 0.10 0.62 ( 28.7 15.6 1.00 1.00 2 28.7 15.6 C B 1 12	0.20 0.0 *** 62.0 7. 0.30 0.5 5.9 43. 1.00 1.0 5.9 43. A	4 0.14 0.14

COMPARE

San Jose, CA Hexagon Transportation Consultants Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + Project PM Intersection #3905: RINGWOOD AVE/TRADE ZONE BLVD Signal=Split/Rights=Include Final Vol: 15 2\*\*\* 5 11 Lanes: Ο Λ Λ Signal=Protect Rights=Overlap Signal=Protect Rights=Overlap 9/17/2019 Final Vol: Lanes: Vol Cnt Date: Lanes: Final Vol: Cycle Time (sec): 91 36 0 8 Loss Time (sec): 12 0 1 1256\*\*\* Critical V/C: 0.543 1 532 0 Avg Crit Del (sec/veh): 212 0 66\*\*\* 350 Avg Delay (sec/veh): 194 LOS: в 0 Lanes: n Final Vol: 321 2 129 Signal=Split/Rights=Overlap Approach: North Bound South Bound East Bound West Bound L - T - R L - T - R L - T - RMovement: L – T – R 10 10 10 7 10 10 10 10 10 10 7 10 Min. Green: 4.0 4.0 4.0 4.0 4.0 4.0 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 \_\_\_\_\_ Volume Module: >> Count Date: 17 Sep 2019 << 5:00-6:00 PM 5 2 15 62 436 Base Vol: 333 2 127 36 1206 348 8 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 127 5 2 62 436 Initial Bse: 333 2 15 36 1206 348 8 24 -12 0 2 0 0 0 0 20 -5 -1 0 Added Vol: PasserByVol: 0 0 0 0 0 0 0 30 7 5 72 0 Initial Fut: 321 129 5 2 15 36 1256 350 66 532 2 8 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 PHF Adj: 1.00 5 2 15 129 8 PHF Volume: 321 2 36 1256 350 66 532 0 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 129 Reduced Vol: 321 2 5 2 15 36 1256 350 66 532 8 PCE 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 MLF Adj:

FinalVolume:	321 2	2 129	5	2	15	36	1256	350	66	532	8
Saturation Fl	Low Module	:									
Sat/Lane:	1900 1900	1900	1900 1	900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93 0.95	0.92	0.92 0	).92	0.92	0.92	1.00	0.92	0.92	0.97	0.95
Lanes:	1.99 0.01	1.00	0.23 0	0.09	0.68	1.00	2.00	1.00	1.00	1.97	0.03
Final Sat.:	3528 22	1750	398	159	1193	1750	3800	1750	1750	3645	55
Capacity Anal	Lysis Modu	le:									
Vol/Sat:	0.09 0.09	0.07	0.01 0	0.01	0.01	0.02	0.33	0.20	0.04	0.15	0.15
Crit Moves:	* * * *		*	* * * *			* * * *		* * * *		
Green Time:	13.4 13.4	20.4	10.0 1	L0.0	10.0	19.2	48.6	62.0	7.0	36.4	46.4
Volume/Cap:	0.62 0.62	0.33	0.11 0	).11	0.11	0.10	0.62	0.29	0.49	0.36	0.29
Delay/Veh:	38.7 38.7	30.1	36.8 3	36.8	36.8	29.0	15.3	5.9	43.1	19.3	12.9
User DelAdj:	1.00 1.00	1.00	1.00 1	L.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	38.7 38.7	30.1	36.8 3	36.8	36.8	29.0	15.3	5.9	43.1	19.3	12.9
LOS by Move:	DI	) C	D	D	D	С	В	A	D	В	В
HCM2kAvgQ:	6 6	5 3	1	1	1	1	12	4	3	5	4
Note: Queue r	reported i	s the n	umber c	of car	rs per	lane.					

COMPARE

San Jose, CA

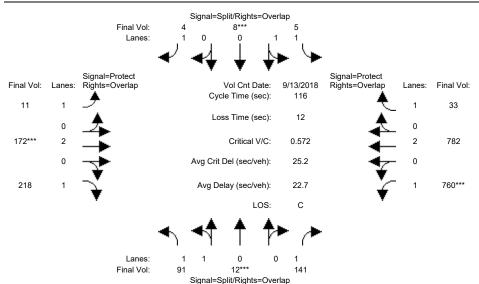
Hexagon Transportation Consultants Level Of Service Computation Report

2000 HCM Operations (Future Volume Alternative)

Existing AM

#### Intersection #3663: LUNDY AVE/TRADE ZONE BLVD

COMPARE



Approach: North Bound South Bound East Bound West Bound  $L - T - R \qquad L - T - R \qquad L - T - R$ Movement: L – T – R 10 10 10 7 10 10 10 10 10 10 7 Min. Green: 10 4.0 4.0 4.0 4.0 4.0 4.0 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 Volume Module: >> Count Date: 13 Sep 2018 << 11 172 760 782 Base Vol: 91 12 141 5 8 4 218 33 1.00 1.00 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 5 8 11 172 218 Initial Bse: 91 12 141 4 760 782 33 0 0 0 0 0 0 0 0 0 0 0 0 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 PasserBvVol: Initial Fut: 91 5 8 11 172 218 760 782 12 141 4 33 1.00 1.00 1.00 User Adi: PHF 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 PHF Volume: 91 12 4 760 782 141 5 8 11 172 218 33 0 0 0 0 0 0 0 0 0 0 Reduct Vol: 0 0 760 782 5 8 4 Reduced Vol: 91 12 141 11 172 218 33 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 PCE Adi: MLF Adj: 1.00 1.00 1.00 1.00 91 12 141 5 8 4 11 172 218 760 782 FinalVolume: 33 -----||-----||------||-------|| Saturation Flow Module: Adjustment: 0.93 0.95 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 1.77 0.23 1.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 Lanes: Final Sat.: 3136 414 1750 1750 1900 1750 1750 3800 1750 1750 3800 1750 Capacity Analysis Module: Vol/Sat: 0.03 0.03 0.08 0.00 0.00 0.00 0.01 0.05 0.12 0.43 0.21 0.02 \* \* \* \* \* \* \* \* \*\*\*\* Crit Moves: \* \* \* \* Green Time: 10.0 10.0 84.0 10.0 10.0 29.0 19.0 10.0 20.0 74.0 65.0 75.0 Volume/Cap: 0.34 0.34 0.11 0.03 0.05 0.01 0.04 0.53 0.72 0.68 0.37 0.03 Delav/Veh: 50.5 50.5 4.8 48.6 48.7 32.7 40.8 52.3 53.7 15.2 14.3 7.4 1.00 1.00 1.00 1.00 1.00 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 AdjDel/Veh: 50.5 50.5 4.8 48.6 48.7 32.7 40.8 52.3 53.7 15.2 14.3 7.4 LOS by Move: D D A D D С D D D В В Α 0 HCM2kAvqQ: 2 2 2 0 0 0 4 9 18 7 0 Note: Queue reported is the number of cars per lane.

San Jose, CA Hexagon Transportation Consultants Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background AM Intersection #3663: LUNDY AVE/TRADE ZONE BLVD Signal=Split/Rights=Overlap Final Vol: Λ 8\*\*\* Lanes: 0 Signal=Protect Rights=Overlap Signal=Protect Rights=Overlap Final Vol: Lanes: Lanes: Final Vol: Vol Cnt Date: 9/13/2018 Cycle Time (sec): 116 21 1 34 12 Loss Time (sec): 0 189\*\*\* Critical V/C: 0.590 2 793 0 Avg Crit Del (sec/veh): 264 0 770\*\*\* 263 Avg Delay (sec/veh): 25.7 1 С LOS: 0 Lanes: 13\*\*\* Final Vol: 110 143 Signal=Split/Rights=Overlap Approach: North Bound South Bound East Bound West Bound L - T - R L - T - R L - T - RMovement: L – T – R 10 10 10 7 10 10 10 10 10 7 10 Min. Green: 10 4.0 4.0 4.0 4.0 4.0 4.0 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 Volume Module: >> Count Date: 13 Sep 2018 << 760 782 Base Vol: 91 12 141 58 4 11 172 218 33 Growth 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 5 8 Initial Bse: 91 12 141 4 11 172 218 760 782 33 0 0 0 0 0 0 0 0 0 0 Added Vol: 0 0 PasserByVol: 19 1 2 0 0 0 10 17 45 10 11 1 13 5 21 189 770 793 Initial Fut: 110 143 8 4 263 34 1.00 1.00 1.00 1.00 User Adi: 1.00 1.00 1.00 1.00 1.00 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 PHF Volume: 110 13 143 5 8 4 21 189 263 770 793 34 0 0 0 0 0 0 0 0 0 0 0 0 Reduct Vol: 21 189 770 793 Reduced Vol: 110 143 5 8 4 13 263 34 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 PCE Adi: 1.00 1.00 1.00 1.00 1.00 1.00 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 FinalVolume: 110 13 143 5 8 4 21 189 263 770 793 34 -----||-----||------||-------|| Saturation Flow Module: Adjustment: 0.93 0.95 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 Lanes: Final Sat.: 3175 375 1750 1750 1900 1750 1750 3800 1750 1750 3800 1750 Capacity Analysis Module: Vol/Sat: 0.03 0.03 0.08 0.00 0.00 0.00 0.01 0.05 0.15 0.44 0.21 0.02 \*\*\*\* \* \* \* \* \*\*\*\* Crit Moves: \*\*\*\* Green Time: 10.0 10.0 84.0 10.0 10.0 28.8 18.8 10.0 20.0 74.0 65.2 75.2 Volume/Cap: 0.40 0.40 0.11 0.03 0.05 0.01 0.07 0.58 0.87 0.69 0.37 0.03 Delav/Veh: 51.0 51.0 4.8 48.6 48.7 32.8 41.3 53.5 69.8 15.4 14.2 7.3 1.00 1.00 1.00 1.00 1.00 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 AdjDel/Veh: 51.0 51.0 4.8 48.6 48.7 32.8 41.3 53.5 69.8 15.4 14.2 7.3

0 Note: Queue reported is the number of cars per lane.

A

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D D

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LOS by Move:

HCM2kAvgQ:

Traffix 8.0.0715

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В

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В

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						San Jose			UE			
							tion Consultar					
							nputation Rep ure Volume Ali					
					Back	ground + I	Project AM					
Intersection #3663	EUNDY	AVE/II	RADE ZU	NE BLVD								
			-	Split/Rights=0	Overlap							
	Final	Vol: nes:	4 1 0	8*** 0	1	5 1						
	20		أبأر	ľ	k.	Ì.						
		•	′ ◄¥	' ★ '	▞⋗	- 🌪						
Sig Final Vol: Lanes: Rig	gnal=Protect			Vol Cnt Dat	۔ م. ۵/۲	13/2018	Signal=Prote Rights=Over		nes: Final Vo			
	▲	þ	C	vol on bat		116	Nights=0ven	<b>Å</b>		1.		
34 1						10		~	1 34			
0	<u>*</u>		L	oss Time (seo	;):	12		<u>.</u>	0			
199*** 2	5			Critical V/	C: (	0.606			2 786			
0 —	5		Ava Cr	it Del (sec/veł	Ŋ.	27.0			0			
	¥		/ trg Oi		.y.	21.0		Ý	0			
276 1	Ž –		Avg [	Delay (sec/veł	ı):	27.3		<u>`</u>	1 791***			
	•			LO	S:	С		•				
		•	∖ ◄¶	· 🕇 '	≁	1						
			· ·	1	1							
	La Final	nes: Vol: 10	1 1 9***	0 13	0	1 144						
				Split/Rights=0	Overlap							
Approach:	Nor	th Bo	und	Sout	h Bc	und	E	ast Bo	hund	τω7 e	est Bo	hund
Movement:		T		L -				- T		L ·	- Т	– R
							-					
Min. Green:	10	10	10	10	10	1(	) 7	10	10	7	10	10
Y+R:	4.0	4.0	4.0		4.0	4.0	0 4.0	4.0	4.0	4.0	4.0	4.0
TT-low Madel	1			1			-					
Volume Modul Base Vol:	e: >> 91	Lount 12	Date: 141	13 Sep 5	201		4 11	172	218	760	782	33
Growth Adj:	1.00		1.00	1.00 1		1.00		1.00	1.00	1.00		1.00
Initial Bse:	91	12	141	5	.00		4 11	172	218	760	782	33
Added Vol:	-1	0	1	0	0		) 13	10	13	21	-7	0
PasserByVol:	19	1	2	0	0	(	) 10	17	45	10	11	1
Initial Fut:	109	13	144	5	8	4	4 34	199	276	791	786	34

Movement:	_		- R	_	- т	- R	_	- Т	– R 	L -	- T	- R
		10					7			7		
Y+R:		4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module	e: >>	Count	Date:	13 Se	ep 201	8 <<						
Base Vol:	91	12	141	5	8	4	11	172	218	760	782	33
Growth 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
Initial Bse:			141	5		4			218	760	782	33
Added Vol:			1	-	0	0	13		13	21	-7	0
PasserByVol:	19	1	2	0	0	0	10	17	45	10	11	1
Initial Fut:	109	13	144	5	8	4	34	199	276	791	786	34
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF 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
PHF Volume:			144	5		4	34	199	276	791	786	34
Reduct Vol:	0	0	0	0	-		0	0	0	0	0	0
Reduced Vol:			144		8				276		786	34
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:			144		8	4		199			786	34
Saturation F												
				1900				1900			1900	
Adjustment:					1.00			1.00			1.00	
Lanes:			1.00		1.00			2.00			2.00	
Final Sat.:					1900			3800			3800	
Capacity Ana												
Vol/Sat:					0.00	0.00	0.02	0.05			0.21	0.02
0110 110 000.	****				****			****		****		
		10.0			10.0			10.0			65.0	
Volume/Cap:					0.05			0.61			0.37	
Delay/Veh:			4.8		48.7			54.4			14.2	7.4
User DelAdj:					1.00			1.00			1.00	
AdjDel/Veh:					48.7			54.4			14.2	7.4
LOS by Move:				D		С				В	В	A
HCM2kAvgQ:			_	0	-	-	1	-	14		7	0
Note: Onene	renor	ted is	the n	umber	of ca	ars per	lane					

Note: Queue reported is the number of cars per lane.

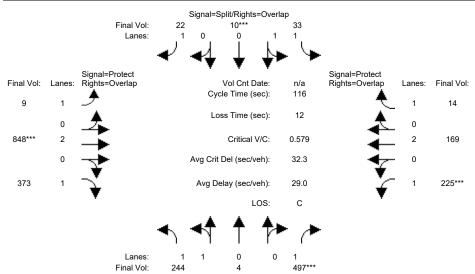
COMPARE

San Jose, CA Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing PM

Intersection #3663: LUNDY AVE/TRADE ZONE BLVD

COMPARE



Signal=Split/Rights=Overlap

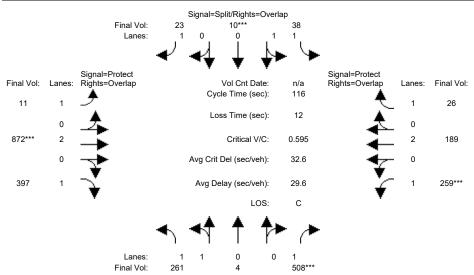
Approach:	North Bound			Soi	ith Bc	ound	Ea	ast Bc	und	West Bound			
Movement:	L ·	- T -	- R	L ·	- T	- R	L ·	- T	- R	L -	- T		
Min. Green:						10							
Y+R:						4.0						4.0	
Volume Module:										I			
Base Vol:	244	4	497	33	10	22	9	848	373	225	169	14	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	244	4	497	33	10	22	9		373	225	169	14	
Added Vol:	0		0	0		0	0		0	0	0	0	
PasserByVol:				0		0	0		0	0	0	0	
Initial Fut:				33		22	9		373	225	169	14	
User Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00	
PHF Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00	
PHF Volume:		4	497	33	10	22	9		373	225	169	14	
Reduct Vol:				0		0	0	-	0	0	0	0	
Reduced Vol:				33	10		9		373	225	169	14	
PCE Adj:	1.00	1.00			1.00	1.00		1.00	1.00		1.00	1.00	
MLF Adj:			1.00	1.00		1.00		1.00			1.00	1.00	
FinalVolume:				33					373		169	14	
Saturation F													
		1900		1900	1 9 0 0	1900	1 9 0 0	1900	1900	1 9 0 0	1900	1900	
Adjustment:			0.92		0.95	0.92		1.00	0.92		1.00	0.92	
Lanes:			1.00		0.46	1.00		2.00	1.00		2.00	1.00	
Final Sat.:					826	1750		3800	1750		3800	1750	
Capacity Ana	lysis	Modul	e:										
Vol/Sat:	0.07	0.07	0.28	0.01	0.01	0.01		0.22		0.13	0.04	0.01	
Crit Moves:			* * * *		* * * *			* * * *		* * * *			
Green Time:	28.8	28.8	52.6	10.0	10.0	36.8	26.8	41.4	70.2	23.8	38.3	48.3	
Volume/Cap:	0.28	0.28	0.63	0.14	0.14	0.04	0.02	0.63	0.35	0.63	0.13	0.02	
Delay/Veh:	35.4	35.4	25.8	49.2	49.2	27.4	34.5	31.8	11.7	45.5	27.2	19.9	
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00	
AdjDel/Veh:					49.2	27.4		31.8	11.7		27.2	19.9	
LOS by Move:				D		С	С		В		С	В	
HCM2kAvgQ:				1	_	1	0		7	8	2	0	
Note: Queue	repor	ted is	the n	umber	of ca	rs per	lane	•					

San Jose, CA Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background PM

### Intersection #3663: LUNDY AVE/TRADE ZONE BLVD

COMPARE



Signal=Split/Rights=Overlap

Approach: Movement:		rth Boi - T		d South Bound R L - T - R				ast Bo - T		West Bound L - T - R		
	10		10	1	10	10		10	10	7	10	10
Y+R:	4.0		4.0		4.0	4.0		4.0		4.0		4.0
Volume Module	e:											
Base Vol:	244	4	497	33	10	22	9	848	373	225	169	14
Growth 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
Initial Bse:	244	4	497	33	10	22	9	848	373	225	169	14
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	17	0	11	5	0	1	2	24	24	34	20	12
Initial Fut:	261	4	508	38	10	23	11	872	397	259	189	26
User 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
PHF 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
PHF Volume:	261	4	508	38	10	23	11	872	397	259	189	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	261		508	38	10	23	11		397	259	189	26
PCE Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
MLF Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
FinalVolume:				38	10	23		872	397	259	189	26
Saturation F												
Sat/Lane:		1900	1900		1900	1900		1900	1900		1900	1900
2	0.93		0.92		0.95	0.92		1.00	0.92		1.00	0.92
	1.97		1.00		0.41	1.00		2.00	1.00		2.00	1.00
Final Sat.:			1750		740	1750		3800	1750		3800	1750
Capacity Ana	-											
Vol/Sat:	0.0/	0.07	0.29 ****	0.01	0.01 ****	0.01	0.01	0.23 ****	0.23	U.15 ****	0.05	0.01
Crit Moves:				10.0		0.0 1	0.0 1		6 7 0			
	25.7		52.5		10.0	38.1		41.5	67.2		40.2	50.2
· 1	0.34		0.64		0.16	0.04		0.64	0.39		0.14	0.03
Delay/Veh:		38.2	26.3		49.3	26.5		32.1	13.5		26.1	19.0
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:			26.3		49.3	26.5		32.1	13.5		26.1	19.0
LOS by Move:			C	D		C	C	C	B		C	B
j£•	4			1	1	1	0		8	9	2	1
Note: Queue	report	ted is	the n	umper	oi ca	rs per	⊥ane	•				

San Jose, CA

Hexagon Transportation Consultants Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + Project PM Intersection #3663: LUNDY AVE/TRADE ZONE BLVD Signal=Split/Rights=Overlap Final Vol: 23 10\*\*\* 38 Lanes: 0 Signal=Protect Rights=Overlap Signal=Protect Lanes: Final Vol: Final Vol: Lanes: Vol Cnt Date: n/a Rights=Overlap Cycle Time (sec): 116 35 1 26 12 Loss Time (sec): 0 0 879\*\*\* Critical V/C: 0.598 2 185 0 Avg Crit Del (sec/veh): 32.6 0 268\*\*\* 412 Avg Delay (sec/veh): 297 1 С LOS: Lanes: 0 n Final Vol: 261 4 509\*\* Signal=Split/Rights=Overlap Approach: North Bound South Bound East Bound West Bound L - T - R L - T - R L - T - RMovement: L – T – R 10 7 10 10 10 10 10 10 10 7 10 10 Min. Green: 4.0 4.0 4.0 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 Volume Module: 497 33 10 22 9 848 373 225 169 Base Vol: 244 4 14 Growth 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 33 10 Initial Bse: 244 4 497 22 9 848 373 225 169 14 1 24 7 0 0 0 0 9 -4 0 Added Vol: 0 15 PasserByVol: 17 0 11 5 0 1 2 24 24 34 20 12 509 38 10 23 35 879 Initial Fut: 261 4 412 268 185 26 1.00 1.00 1.00 User Adi: 1.00 PHF Adj: 1.00 1.00 1.00 1.00 23 35 879 268 185 PHF Volume: 261 4 509 38 10 412 26 0 0 0 0 0 0 0 0 0 Reduct Vol: 0 0 0 Reduced Vol: 261 4 509 38 10 23 35 879 412 268 185 26 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 PCE Adi: 1.00 1.00 1.00 1.00 1.00 1.00 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 4 509 38 10 23 35 879 412 268 185 FinalVolume: 261 26 Saturation Flow Module: Adjustment: 0.93 0.95 0.92 0.93 0.95 0.92 0.92 1.00 0.92 0.92 1.00 0.92 1.97 0.03 1.00 1.59 0.41 1.00 1.00 2.00 1.00 1.00 2.00 1.00 Lanes: Final Sat.: 3496 54 1750 2810 740 1750 1750 3800 1750 1750 3800 1750 Capacity Analysis Module: Vol/Sat: 0.07 0.07 0.29 0.01 0.01 0.01 0.02 0.23 0.24 0.15 0.05 0.01 \* \* \* \* \* \* \* \* \*\*\*\* Crit Moves: \*\*\*\* Green Time: 24.8 24.8 52.4 10.0 10.0 38.5 28.5 41.6 66.4 27.6 40.7 50.7 Volume/Cap: 0.35 0.35 0.64 0.16 0.16 0.04 0.08 0.64 0.41 0.64 0.14 0.03 26.5 33.8 32.1 Delav/Veh: 39.0 39.0 49.3 49.3 26.3 14.1 43.3 25.7 18.7 1.00 1.00 1.00 1.00 1.00 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 AdjDel/Veh: 39.0 39.0 26.5 49.3 49.3 26.3 33.8 32.1 14.1 43.3 25.7 18.7 LOS by Move: D D С D D С С С В D С В 15 4 HCM2kAvqQ: 4 1 1 1 1 14 9 9 2 1

Note: Queue reported is the number of cars per lane.

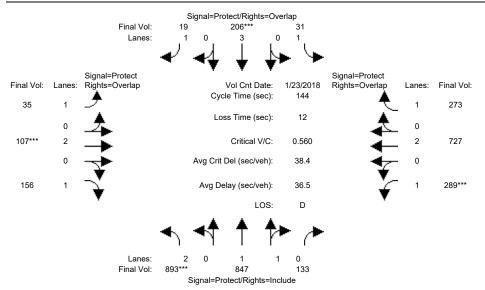
COMPARE

### Wed May 11 08:18:38 2022

### 1849 FORTUNE DRIVE AND 2400 RINGWOOD AVENUE San Jose, CA

Hexagon Transportation Consultants

### Intersection #3381: CAPITOL AVE/TRADE ZONE BLVD



Approach: North Bo Movement: L - T		outh Bound - T - R				
Min. Green: 7 10		/ 10 10	7 10		7 10	
Y+R: 4.0 4.0	4.0 4.0	4.0 4.0			4.0 4.0	
Volume Module: >> Count	Date: 23 3	Jan 2018 <<				
Base Vol: 893 847	133 31	206 19	35 107	156	289 727	273
Growth 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
Initial Bse: 893 847	133 31	206 19	35 107	156	289 727	273
Added Vol: 0 0	0 0	0 0	0 0	0	0 0	0
PasserByVol: 0 0	0 0	) 0 0	0 0	0	0 0	0
Initial Fut: 893 847	133 31	206 19	35 107	156	289 727	273
User 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
PHF 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
PHF Volume: 893 847	133 31		35 107	156	289 727	273
Reduct Vol: 0 0	0 0		0 0	0	0 0	0
Reduced Vol: 893 847	133 31		35 107	156	289 727	273
PCE Adj: 1.00 1.00		) 1.00 1.00	1.00 1.00	1.00	1.00 1.00	1.00
MLF Adj: 1.00 1.00		) 1.00 1.00	1.00 1.00	1.00	1.00 1.00	1.00
FinalVolume: 893 847		206 19	35 107		289 727	273
Saturation Flow Module						
Sat/Lane: 1900 1900		) 1900 1900	1900 1900	1900	1900 1900	1900
Adjustment: 0.83 0.98		2 1.00 0.92	0.92 1.00	0.92	0.92 1.00	0.92
Lanes: 2.00 1.72		) 3.00 1.00	1.00 2.00	1.00	1.00 2.00	1.00
Final Sat.: 3150 3197		) 5700 1750	1750 3800	1750	1750 3800	1750
Capacity Analysis Modul Vol/Sat: 0.28 0.26		2 0.04 0.01	0.02 0.03	0.09	0.17 0.19	0.16
	0.26 0.02	2 U.U4 U.U1 ****	U.UZ U.U3 ****	0.09	0.17 0.19 ****	0.10
Crit Moves: **** Green Time: 70.8 68.2		5 10.0 20.4	10.4 10.0	80.8	41.2 40.8	53.4
Volume/Cap: 0.58 0.56		0.52 0.08	0.28 0.41	0.16	0.58 0.67	0.42
Delay/Veh: 26.5 27.5		3 65.9 53.8	64.5 65.2	15.3	45.6 47.4	34.2
User DelAdj: 1.00 1.00		) 1.00 1.00	1.00 1.00	1.00	1.00 1.00	1.00
AdjDel/Veh: 26.5 27.5		3 65.9 53.8	64.5 65.2	15.3	45.6 47.4	34.2
LOS by Move: C C	27.5 01.0 C E			13.3 B	43.0 47.4 D D	54.2 C
HCM2kAvgQ: 17 16	16 1		2 2	3	12 15	10
Note: Queue reported is				0	±= ±0	± •

### 1849 FORTUNE DRIVE AND 2400 RINGWOOD AVENUE San Jose, CA

$\begin{array}{c c c c c c c c c c c c c c c c c c c $
Background AM         Intersection #3381: CAPITOL AVE/TRADE ZONE BLDD         Signal=Protect Rights=Overlap         Signal=Protect Rights=Foreid Rights=Overlap         Signal=Protect Rights=Foreid Rights=F
$\begin{array}{c c c c c c c c c c c c c c c c c c c $
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Then Vol: Lanes: Right=Overlap Vol Cnt Date: 122018 Right=Overlap Lanes: Final Vol: Cycle Time (sec): 14 1 275 0 1 275 1 273 1 201 1 201 1 275 0 1 201 1 20
Then Vol: Lanes: Right=Overlap Vol Cnt Date: 122018 Right=Overlap Lanes: Final Vol: Cycle Time (sec): 14 1 275 0 1 275 1 273 1 201 1 201 1 275 0 1 201 1 20
The Work Lanes: Rights-Overlap Vol Cut Date: 1222018 Rights-Overlap Lanes: Final Vol: Cycle Time (sec): 12 0 126''' 2 0 126''' 2 126''' 2 0 126''' 2 126''' 2 126''' 2 126''' 2 126''' 2 126''' 2 127'' 2 126''' 2 127'' 2 127''' 2 127''' 2 127''' 2 127''''''''''''''''''''''''''''''''''''
<pre>39 1 1 275 Loss Time (sec): 12 0 126"** 2 0 1 1 0 10 The (sec)***: 176 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</pre>
$\begin{array}{cccccccccccccccccccccccccccccccccccc$
$\begin{array}{c c c c c c c c c c c c c c c c c c c $
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Los: D Lane: 2 0 1 1 0 Final Viz: 2227 $\frac{1}{97}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ Signal-Protect/Rights-Include Approach: North Bound South Bound East Bound Vest Bound forvement: L - T - R L - T - R   L - T   L - T   R   L - T
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $
Final Vot:       922***       971       137         Appproach:       North Bound       South Bound       East Bound       West Bound         forwement:       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       0 <th< td=""></th<>
Final Vot:       922***       971       137         Appproach:       North Bound       South Bound       East Bound       West Bound         forwement:       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       0 <th< td=""></th<>
Final Vot:       922***       971       137         Appproach:       North Bound       South Bound       East Bound       West Bound         forwement:       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       0 <th< td=""></th<>
Signal=Protect/Rights=Include         East         Bound         L         I         T         C         R         L         -         T         -         R         L         -         T         -         R         L         -         T         -         R         L         -         T         -         R         L         -         T         -         R         L         -         T         -         R         L         -         T         -         R         L         -         T         -         R         L         -         T         -         R         L         -         T         -         R         L         -         T         -         R         L         -         T         -         R         L         -         T         R         R         L         -         T         R         L         -         T         R         R         L         -         T         R         L         -         T         R         L         -         T         R         L         C         T         C         T         C         T         C         T         C         T
And       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       R       L       -       T       R       L       -       T       R       L       -       T       R       L       -       T       R       L       -       T       R       L       -       T       R       L       -       T       R       L       -       T       R       L       -       T       R       L       -       T       R       L       C       T       I       I       I       I       I       I
And       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       -       R       L       -       T       R       L       -       T       R       L       -       T       R       L       -       T       R       L       -       T       R       L       -       T       R       L       -       T       R       L       -       T       R       L       -       T       R       L       -       T       R       L       -       T       R       L       C       T       I       I       I       I       I       I
din. Green:       7       10       10       10       10       10       10       10       10       10       10       10       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100<
X+R:       4.0       1.00
Jolume Module: >> Count Date: 23 Jan 2018 <
Wolume Module: >> Count Date: 23 Jan 2018 <         Base Vol:       893 847       133       31 206       19       35 107       156       289 727       273         Browth Adj:       1.00       0
Browth Adj:       1.00       0 <td< td=""></td<>
Enitial Bse:       893       847       133       31       206       19       35       107       156       289       727       273         Added Vol:       0
Added Vol:       0 <th0< th=""> <th0<< td=""></th0<<></th0<>
PasserByVol:       29       24       4       0       4       0       4       19       20       2       10       2         Initial Fut:       922       871       137       31       210       19       39       126       176       291       737       275         Jser Adj:       1.00       1.
Jser Adj:       1.00       0
PHF Adj:       1.00       0       1.00
PHF Volume:       922       871       137       31       210       19       39       126       176       291       737       275         Reduct Vol:       0
Reduct Vol:       0 <td< td=""></td<>
Reduced Vol:       922       871       137       31       210       19       39       126       176       291       737       275         PCE Adj:       1.00 <td< td=""></td<>
PCE Adj:       1.00
FinalVolume:       922       871       137       31       210       19       39       126       176       291       737       275         Gaturation Flow Module:
Gaturation Flow Module:         Saturation Flow Module:         Sat/Lane:       1900 1900 1900 1900 1900 1900 1900 1900
Saturation Flow Module:         Sat/Lane:       1900
Sat/Lane:       1900       150       1750       3800
Adjustment:       0.83       0.98       0.95       0.92       1.00       0.92       0.92       1.00       1.00
Janes:       2.00 1.72 0.28 1.00 3.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00         Final Sat.:       3150 3197 503 1750 5700 1750 1750 3800 1750 1750 3800 1750         Capacity Analysis Module:       701/Sat:       0.29 0.27 0.27 0.02 0.04 0.01 0.02 0.03 0.10 0.17 0.19 0.16         Crit Moves:       ****       ****
Capacity Analysis Module: Vol/Sat: 0.29 0.27 0.27 0.02 0.04 0.01 0.02 0.03 0.10 0.17 0.19 0.16 Crit Moves: **** ****
Capacity Analysis Module:         Yol/Sat:       0.29       0.27       0.02       0.04       0.01       0.02       0.03       0.10       0.17       0.19       0.16         Crit Moves:       ****       ****       ****       ****       ****
Vol/Sat:         0.29         0.27         0.27         0.02         0.04         0.01         0.02         0.03         0.10         0.17         0.19         0.16           Crit Moves:         ****         ****
Crit Moves: **** **** ****
Green Time: 71.4 69.1 69.1 12.3 10.0 20.1 10.1 10.0 81.4 40.6 40.4 52.8
Tolume/Cap:         0.59         0.57         0.21         0.53         0.08         0.32         0.48         0.18         0.59         0.69         0.43
Delay/Veh: 26.5 27.2 27.2 62.0 66.1 54.0 65.1 65.8 15.2 46.4 48.1 34.8 Jser DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
AdjDel/Veh: 26.5 27.2 27.2 62.0 66.1 54.0 65.1 65.8 15.2 46.4 48.1 34.8
LOS by Move: C C C E E D E E B D D C
HCM2kAvgQ: 17 16 16 1 3 1 2 3 4 12 15 10

Note: Queue reported is the number of cars per lane.

2000 HCM Operations (Future Volume Alternative) Background + Project AM Intersection #3381: CAPITOL AVE/TRADE ZONE BLVD Signal=Protect/Rights=Overlap Final Vol. 19 210\*\*\* 31 Lanes: 3 ٥ Λ Signal=Protect Rights=Overlap Signal=Protect Rights=Overlap Final Vol: Lanes: Lanes: Final Vol: Vol Cnt Date: 1/23/2018 Cycle Time (sec): 144 41 1 275 12 Loss Time (sec): 0 0 128\*\*\* Critical V/C: 0.581 2 740 0 Avg Crit Del (sec/veh): 38.8 0 291\*\*\* 183 Avg Delay (sec/veh): 36.7 1 LOS: D 1 Lanes: 2 0 0 Final Vol: 933\* 871 137 Signal=Protect/Rights=Include Approach: North Bound South Bound East Bound West Bound L - T - R L - T - R L - T - R Movement: L – T – R 7 10 10 7 10 10 7 10 10 10 7 10 Min. Green: 4.0 4.0 4.0 4.0 4.0 4.0 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 Volume Module: >> Count Date: 23 Jan 2018 << 893 847 35 107 289 727 Base Vol: 133 31 206 19 156 273 Growth 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 19 Initial Bse: 893 847 133 31 206 35 107 156 289 727 273 0 7 0 0 0 0 2 2 0 3 0 Added Vol: 11 PasserByVol: 29 24 4 0 4 0 4 19 20 2 10 2 Initial Fut: 933 871 137 31 210 19 41 128 291 740 183 275 User Adi: PHF Adj: 1.00 1.00 1.00 1.00 19 PHF Volume: 933 871 137 31 210 41 128 183 291 740 275 0 0 0 0 0 0 0 0 Reduct Vol: 0 0 0 0 Reduced Vol: 933 871 137 31 210 19 41 128 291 740 183 275 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 PCE Adi: 1.00 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 FinalVolume: 933 871 137 31 210 19 41 128 183 291 740 275 -----||-----||------||-------|| Saturation Flow Module: Adjustment: 0.83 0.98 0.95 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 2.00 1.72 0.28 1.00 3.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 Lanes: Final Sat.: 3150 3197 503 1750 5700 1750 1750 3800 1750 1750 3800 1750 Capacity Analysis Module: Vol/Sat: 0.30 0.27 0.27 0.02 0.04 0.01 0.02 0.03 0.10 0.17 0.19 0.16 Crit Moves: \*\*\*\* \* \* \* \* \*\*\*\* \*\*\*\* Green Time: 71.7 69.4 69.4 12.4 10.0 20.0 10.0 10.0 81.7 40.3 40.2 52.6 Volume/Cap: 0.59 0.57 0.57 0.21 0.53 0.08 0.34 0.49 0.18 0.59 0.70 0.43 26.4 27.0 27.0 61.9 66.1 Delav/Veh: 54.1 65.4 65.9 15.1 46.8 48.5 34.9 1.00 1.00 1.00 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 AdjDel/Veh: 26.4 27.0 27.0 61.9 66.1 54.1 65.4 65.9 15.1 46.8 48.5 34.9 LOS by Move: C C С E E D E E В D D С 16 16 17 HCM2kAvqQ: 1 3 1 2 3 4 12 15 10

Note: Queue reported is the number of cars per lane.

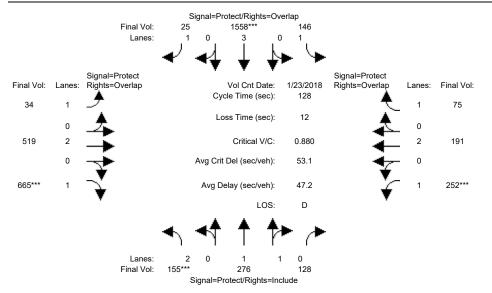
### Wed May 11 08:19:02 2022

### 1849 FORTUNE DRIVE AND 2400 RINGWOOD AVENUE San Jose, CA

Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing PM

### Intersection #3381: CAPITOL AVE/TRADE ZONE BLVD

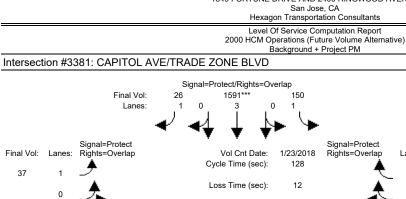


	- R L	- T - R	L – T	– R	West Bound L - T - R		
Min. Green: 7 10 Y+R: 4.0 4.0	10 7 4.0 4.0	10 10 4.0 4.0	7 10 4.0 4.0	10 4.0	10 10 4.0 4.0	7 4.0	
Volume Module: >> Count							
Base Vol: 155 276		1558 25	34 519	665	252 191	75	
Growth Adj: 1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00		1.00 1.00	1.00	
Initial Bse: 155 276	128 146	1558 25	34 519	665	252 191	75	
Added Vol: 0 0	0 0	0 0	0 0	0	0 0	0	
PasserByVol: 0 0	0 0	0 0	0 0	0	0 0	0	
Initial Fut: 155 276	128 146	1558 25	34 519	665	252 191	75	
User 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	
PHF 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	
PHF Volume: 155 276	128 146	1558 25	34 519	665	252 191	75	
Reduct Vol: 0 0	0 0	0 0	0 0	0	0 0	0	
Reduced Vol: 155 276	128 146	1558 25	34 519	665	252 191	75	
PCE 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	
MLF 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	
			34 519		252 191	75	
				·			
Saturation Flow Module:							
Sat/Lane: 1900 1900		1900 1900	1900 1900		1900 1900	1900	
Adjustment: 0.83 0.99		1.00 0.92	0.92 1.00		0.92 1.00	0.92	
Lanes: 2.00 1.35		3.00 1.00	1.00 2.00		1.00 2.00	1.00	
Final Sat.: 3150 2527		5700 1750	1750 3800		1750 3800	1750	
Capacity Analysis Modul							
Vol/Sat: 0.05 0.11		0.27 0.01	0.02 0.14	0.38 (	0.14 0.05	0.04	
Crit Moves: ****	0.11 0.00	****	0.02 0.14		****	0.01	
CIIC 110VCD.	26.6 20.3	39.8 67.9	28.1 47.3	54.5	20.9 40.2	60.5	
Volume/Cap: 0.88 0.53		0.88 0.03	0.09 0.37		$0.88 \ 0.16$	0.09	
Delay/Veh: 96.2 45.8		47.3 14.3	39.8 29.6		77.6 31.8	18.7	
User DelAdj: 1.00 1.00		1.00 1.00	1.00 1.00		1.00 1.00	1.00	
		47.3 14.3	39.8 29.6		77.6 31.8	18.7	
-	D D		D C		E C	B	
HCM2kAvqQ: 6 8	8 5		1 7	27	13 3	2	
Note: Queue reported is	the number	of cars per	lane.				

## 1849 FORTUNE DRIVE AND 2400 RINGWOOD AVENUE San Jose, CA Hexagon Transportation Consultants

				Hexagon T	ransportatio	n Consultan						
			2000 H	CM Operat E	ervice Comp tions (Future Background	Volume Alt						
Intersection #3381	: CAPITOL AVE	/TRADE Z	ONE BL	VD								
	Final Vol:	Signal=P 26	rotect/Righ 1591***	ts=Overla	p 150							
	Lanes:	1 0	3	0	1							
		المعرار										
		•••	•									
Sig Final Vol: Lanes: Rig	nal=Protect hts=Overlap		Vol Cnt [	Date: 1/2		ignal=Prote ights=Overl		nes: Final \	/ol:			
25 4	▶ Í	C	ycle Time (	sec):	128	-	ا	4 70				
35 1	<b>A</b>	L	oss Time (	sec):	12		<u> </u>	1 76				
0			,	,		-	- 4	0				
536 2	▶		Critical	V/C: 0	0.896		<b>–</b>	2 194				
0 —	►	Avg Cri	it Del (sec/	veh):	54.3		<b>⊢</b>	0				
678*** 1	Ť.	Avg [	Delay (sec/	veh):	48.1		2	1 255*	**			
	•		I	LOS:	D		•					
	-	. 📣	. ▲		*							
		1 1	l	r	(*							
	Lanes: Final Vol: 1	2 0 71***	1 314	1	0 147							
		-	Protect/Righ			-		,			,	
Approach: Movement:	North Bo L - T			ith Bc - T	und – P			ound - R	We L -	est Bc - m	und – R	
									_	-		
Min. Green:	7 10	10	7	10	10	7		10	10	10	7	
(+R:	4.0 4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
/olume Module						2.4	F 1 0	665	050	1 0 1	7.5	
Base Vol: Growth Adj:	155 276 1.00 1.00	128 1.00		1558 1.00	25 1.00	1 00	519 1.00	665 1.00	252 1.00	191	75 1.00	
Initial Bse:	155 276	128		1558	25	34	519	665	252	191	75	
Added Vol:	0 0	120	0	0	20	0	0	0000	202	0	0	
PasserByVol:	16 38	19	4	33	1	1	17	13	3	3	1	
nitial Fut:	171 314	147	150	1591	26	35	536	678	255	194	76	
Jser 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	
PHF Adj:	1.00 1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	171 314	147		1591	26	35	536	678	255	194	76	
Reduct Vol:	0 0	0	0	0	0	0	0	0	0	0	0	
educed Vol:	171 314	147		1591	26	35	536	678	255	194	76	
CE Adj:	1.00 1.00											
ILF Adj: 'inalVolume:	1.00 1.00				26	1.00 35				194	1.00 76	
aturation F			i.		I			I			I	
at/Lane:			1900	1900	1900	1900	1900	1900	1900	1900	1900	
djustment:								0.92	0.92	1.00	0.92	
	2.00 1.34				1.00							
'inal Sat.:					1750					3800		
Capacity Ana	lysis Modul	e:										
Vol/Sat:	0.05 0.12	0.12	0.09	0.28	0.01	0.02	0.14	0.39		0.05	0.04	
Crit Moves:	****	20 0	10 4	****	60 0	20 1	17 F	****		10 0	EQ C	
Green Time:			19.4			28.1				40.2		
Volume/Cap: Delay/Veh:					0.03 14.3					0.16 31.8		
Jser DelAdj:					14.3					1.00		
AdjDel/Veh:					14.3	39.9			80.9		19.2	
LOS by Move:		D	D	10.0 D	в	D	29.0 C	D	500.9 F	C	B	
ICM2kAvqQ:	7 9	9	6	21	0	1	7	28	14	3	2	

Note: Queue reported is the number of cars per lane.



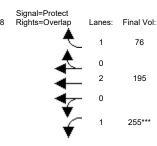
COMPARE

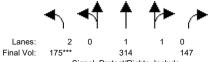
537

682\*\*\*

2

0





Avg Crit Del (sec/veh):

Avg Delay (sec/veh):

Signal=Protect/Rights=Include

Critical V/C:

LOS:

0.899

54.6

48.3

D

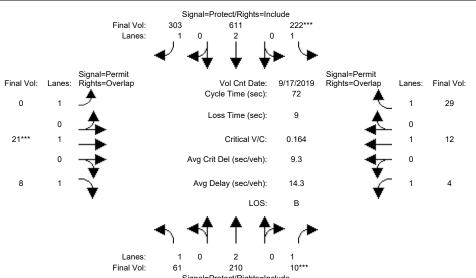
Approach:	No	rth Bou	ind	Soi	ith Bo	ound	Ea	ast Bc	und	We	est Bc	und
Movement:	L ·	- T -	- R	L -	- T	- R	L ·	- T	- R	L -	- Т	
Min. Green:		10							 10			
Y+R:		4.0				4.0					4.0	
1 · IX.	4.0 	4.0	1									
Volume Module							1		1	I		I
	155	276	128		1558		34	519	665	252	191	75
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	155	276	128	146	1558	25	34	519	665	252	191	75
Added Vol:		0	0	0	0	0	2		4	0	1	0
PasserByVol:	16	38	19	4	33	1	1	17	13	3	3	1
Initial Fut:	175	314	147	150	1591	26	37	537	682	255	195	76
User 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
PHF Adj:	1.00		1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Volume:		314	147	150	1591	26	37	537	682	255	195	76
Reduct Vol:			0	0	0	0	0	0	0	0	0	0
Reduced Vol:				150		26	37		682	255	195	76
PCE Adj:	1.00	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
MLF Adj:			1.00		1.00	1.00		1.00		1.00		1.00
FinalVolume:						26					195	76
Saturation Fi Sat/Lane:		1900		1900	1000	1900	1000	1900	1900	1000	1900	1900
Adjustment:			0.95	0.92		0.92		1.00	0.92		1.00	0.92
Lanes:			0.95	1.00		1.00		2.00	1.00		2.00	1.00
Final Sat.:					5700	1750		3800	1750	1750		1750
Fillar Sat												
Capacity Anal				I		I	1		1	I		I
Vol/Sat:	-			0.09	0.28	0.01	0.02	0.14	0.39	0.15	0.05	0.04
	****								****	****		
Green Time:	7.9	28.2	28.2	19.4	39.7	67.9	28.1	47.6	55.5	20.8	40.2	59.6
Volume/Cap:	0.90	0.56	0.56	0.56	0.90	0.03	0.10	0.38	0.90	0.90	0.16	0.09
Delay/Veh:	97.3	45.3	45.3	53.2	48.8	14.3	39.9	29.6	47.2	81.5	31.8	19.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	97.3	45.3	45.3	53.2	48.8	14.3	39.9	29.6	47.2	81.5	31.8	19.1
LOS by Move:				D	D	В	D		D	F	С	В
		9		6		0			28	14	3	2
Note: Queue	report	ted is	the n	umber	of ca	irs per	lane	•				

San Jose, CA Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Existing AM

### Intersection #3531: LUNDY AVE/FORTUNE DR



Movement:	L ·	- т	– R	L ·	- т	– R	L ·	- т	– R	West Bound L - T - R		
		10						10			10	
Y+R:		4.0	4.0			4.0				4.0		
Volume Module Base Vol:	e: >> 61		Date: 10	222			00-9		8	4	12	29
Growth Adj:			1.00		1.00	1.00		1.00		1.00 1		1.00
Initial Bse:			1.00	222		303	0.11	21	1.00	4	12	29
	0	210	01	222		0	0	21	0	4	12	29
PasserByVol:	-	-	0	0		0	0	0	0	0	0	0
Initial Fut:			10	222	611	-	0	21	8	4	12	29
User Adj:			1.00		1.00	1.00	-	1.00		1.00 1		1.00
PHF Adj:			1.00		1.00	1.00		1.00	1.00	1.00 1		1.00
PHF Volume:			10	222	611	303	0	21	8	4	12	29
Reduct Vol:	0	0	0		0	0	0	0	0	-	0	0
Reduced Vol:	61	210	10	222	611	303	0		8	4	-	29
PCE Adj:			1.00		1.00	1.00		1.00		1.00 1		1.00
MLF Adj:			1.00		1.00	1.00		1.00		1.00 1		1.00
FinalVolume:			10		611	303	0		8	4		29
Saturation Fi	low Me	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900 1	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92 1	L.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00 1	L.00	1.00
Final Sat.:			1750		3800	1750		1900	1750	1750 1		1750
Capacity Ana	-											
Vol/Sat:	0.03	0.06	0.01		0.16	0.17	0.00	0.01	0.00	0.00 0	0.01	0.02
Crit Moves:			* * * *	* * * *				* * * *				
	19.1		10.0		33.9		0.0		29.1	10.0 1		53.0
· +	0.13		0.04		0.34	0.37		0.08	0.01	0.02 0		0.02
Delay/Veh:			26.9	6.8		12.4		27.1	12.9	26.8 2		2.6
User DelAdj:			1.00		1.00	1.00		1.00	1.00	1.00 1		1.00
AdjDel/Veh:				6.8			0.0		12.9	26.8 2		2.6
LOS by Move:				A			A		В	С		A
- J~-	1	-	0	. 2	-	5	0	Ŭ	0	0	0	0
Note: Queue	repor	ted is	the n	umber	oi ca	irs per	⊥ane	•				

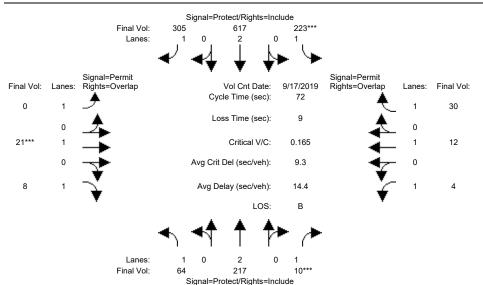
San Jose, CA

Hexagon Transportation Consultants

Level Of Service Computation Report

2000 HCM Operations (Future Volume Alternative) Background AM

### Intersection #3531: LUNDY AVE/FORTUNE DR



Approach: North Bound South Bound East Bound West Bound L - T - R L - T - R L - T - R L - T - RMovement: 7 10 10 7 10 10 10 10 10 10 10 10 Min. Green: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 Y+R: 4.0 4.0 4.0 Volume Module: >> Count Date: 17 Sep 2019 << 8:00-9:00 AM 61 210 303 8 4 Base Vol: 10 222 611 0 21 12 29 1.00 1.00 1.00 1.00 Initial Bse: 61 210 222 611 10 303 0 21 8 4 12 29 0 0 1 6 0 0 0 0 0 0 0 0 0 0 Added Vol: PasserByVol: 3 7 0 2 0 0 0 0 0 1 Initial Fut: 64 217 223 617 305 0 21 10 8 4 12 30 User Adi: PHF Adj: 1.00 1.00 1.00 0 21 PHF Volume: 64 217 4 12 10 223 617 305 8 30 0 0 0 0 0 0 0 0 0 0 0 Reduct Vol: 0 223 617 305 Reduced Vol: 64 217 10 0 21 8 4 12 30 PCE 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 1.00 1.00 1.00 1.00 1.00 1.00 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 64 217 10 223 617 305 0 21 8 4 12 FinalVolume: 30 -----||-----||------||-------|| Saturation Flow Module: Adjustment: 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 Lanes: Final Sat.: 1750 3800 1750 1750 3800 1750 1750 1900 1750 1900 1750 Capacity Analysis Module: Vol/Sat: 0.04 0.06 0.01 0.13 0.16 0.17 0.00 0.01 0.00 0.00 0.01 0.02 \* \* \* \* \* \* \* \* Crit Moves: \* \* \* \* Green Time: 19.0 10.0 10.0 43.0 34.0 34.0 0.0 10.0 29.0 10.0 10.0 53.0 Volume/Cap: 0.14 0.41 0.04 0.21 0.34 0.37 0.00 0.08 0.01 0.02 0.05 0.02 Delav/Veh: 20.4 28.8 26.9 6.8 12.1 12.4 0.0 27.1 12.9 26.8 26.9 2.6 1.00 1.00 1.00 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 AdjDel/Veh: 20.4 28.8 26.9 6.8 12.1 12.4 0.0 27.1 12.9 26.8 26.9 2.6 LOS by Move: C C HCM2kAvgQ: 1 3 C 0 A B 2 4 В A C В C C Α 4 5 0 0 0 0 0 0

Note: Queue reported is the number of cars per lane.

# 1849 FORTUNE DRIVE AND 2400 RINGWOOD AVENUE San Jose, CA Hexagon Transportation Consultants

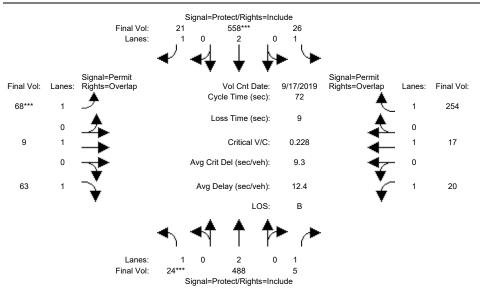
				CM Opera	ervice Computations (Future	Volume Alt					
Intersection #3531:	LUNDY AV	E/FORTUNE	DR		. <u></u>						
		Signal=	Protect/Rig	hts=Includ	e						
	Final Vol:	337***	619		223						
	Lanes:		2	0	1						
		<li>✓ &lt;1</li>		-44-	· 🔶						
Sia	nal=Permit		•	•	Si	gnal=Perm	it				
Final Vol: Lanes: Rig			Vol Cnt		'17/2019 Ri	ghts=Overl		es: Final V	/ol:		
1 1 1	L .	Ĺ	Cycle Time (	sec):	72		<b>€</b> 1	30			
	<b>k</b>		Loss Time (	sec):	9		<b>▲</b>				
0	┣					-	$\sim$				
21*** 1	▶		Critical	V/C:	0.276		<b>←</b> <sup>1</sup>	12			
0	•	Avg C	rit Del (sec/	veh):	11.4		• - ·	)			
	7						♥				
8 1	7	Avg	Delay (sec/	veh):	11.0		✓ <sup>1</sup>	4			
	•			LOS:	В		•				
		1		<b>A</b> .							
		<b>•</b> •	- T		1						
	Lanes:	1 0	2	0	1						
	Final Vol:	67***	2 216	U	10						
		Signal=	Protect/Rig	hts=Includ	е						
approach:	North	Bound	Soi	ith B	ound	Ea	ast Bo	und	W	est Bo	und
lovement:		Г – R		- Т			- T			- T	– R
Ain. Green:	7	10 10	7	10	10	10	10	10	10	10	10
(+R:		.0 4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
						1					
Volume Module				-						10	~ ~
Base Vol:		10 10	222	611	303	0	21	8	1 00	12	29
Frowth Adj:	1.00 1.0		1.00 222	1.00 611	1.00	1.00	1.00 21	1.00	1.00	1.00 12	1.00 29
Initial Bse: Added Vol:		10 10 -1 0	222	2	303 32	1	21	8 0	4	12	29 0
PasserByVol:		7 0	1	6	2	0	0	0	0	0	1
Initial Fut:		16 10	223	619	337	1	21	8	4	12	30
Jser Adj:	1.00 1.0			1.00	1.00		1.00	1.00		1.00	1.00
PHF Adj:	1.00 1.0			1.00	1.00		1.00	1.00	1.00	1.00	1.00
PHF Volume:		16 10	223	619	337	1	21	8	4	12	30
Reduct Vol:	0	0 0	0	0	0	0	0	0	0	0	0
Reduced Vol:	67 23	16 10	223	619	337	1	21	8	4	12	30
CE Adj:		00 1.00		1.00	1.00		1.00			1.00	1.00
1LF Adj:		00 1.00								1.00	
'inalVolume:			223	619	337	1		8	4		30
Saturation Fl Sat/Lane:			1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:							1.00			1.00	
-	1.00 2.0				1.00		1.00			1.00	1.00
Final Sat.:				3800			1900	1750		1900	
Capacity Anal											
Vol/Sat:		06 0.01	0.13	0.16		0.00	0.01	0.00	0.00	0.01	0.02
Crit Moves:					* * * *		* * * *				
	8.8 27			44.2	44.2		10.0	18.8		10.0	35.4
	0.31 0.3		0.36				0.08	0.02		0.05	0.03
Delay/Veh:				6.5	6.8		27.1	19.8		26.9	9.5
Jser DelAdj:			1.00				1.00	1.00		1.00	1.00
djDel/Veh:			17.7	6.5	6.8		27.1	19.8		26.9	9.5
LOS by Move: HCM2kAvqQ:	2	в в 2 0	В 4	A 3		C 0	C 0	В 0	C 0	C 0	A 0
ICMZKAVGŲ: Jote: Oueue i							-	U	U	U	U

Note: Queue reported is the number of cars per lane.

San Jose, CA Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing PM

### Intersection #3531: LUNDY AVE/FORTUNE DR

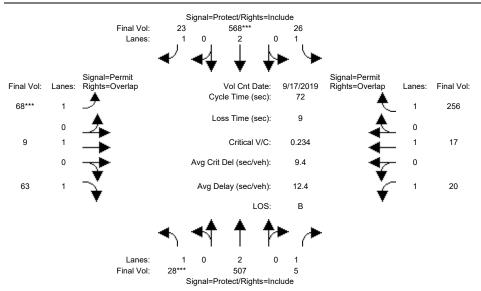


Approach: Movement:	L -	T – R	L	- Т	– R	L ·	- T	– R	L -	– R	
 Min. Green:		10 10			10				10		
Y+R:	4.0 4		4.0	4.0	4.0	4.0	4.0	4.0		4.0	
 Volume Module											
Base Vol:		.88 5		558	21			63	20	17	254
Growth Adj:				1.00	1.00		1.00		1.00		1.00
Initial Bse:		88 5	26	558	21	68	9	63	20	17	254
Added Vol:	0	0 0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0 0	0	0	0	0	0	0	0	0	0
Initial Fut:		.88 5	26	558	21	68	9	63	20	17	254
User 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
PHF 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
PHF Volume:	24 4	88 5	26	558	21	68	9	63	20	17	254
Reduct Vol:	0	0 0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24 4	88 5	26	558	21	68	9	63	20	17	254
PCE Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00 1.			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:				558				63	20		254
 Saturation Fl											
		11e: 000 1900	1000	1900	1900	1000	1900	1900	1000	1900	1900
Adjustment:				1.00	0.92		1.00	0.92		1.00	0.92
2	1.00 2.			2.00	1.00		1.00		1.00		1.00
Final Sat.:				3800	1750		1900	1750	1750		1750
Capacity Anal			11		I	1		I	I		I
Vol/Sat:	-		0.01	0.15	0.01	0.04	0.00	0.04	0.01	0.01	0.15
Crit Moves:				****		****					
Green Time:		.2 30.2	21.1	44.3	44.3	11.7	11.7	18.7	11.7	11.7	32.8
Volume/Cap:				0.24	0.02	0.24	0.03	0.14	0.07	0.05	0.32
Delay/Veh:	30.1 14	.1 12.2	18.3	6.3	5.4	26.7	25.4	20.6	25.6	25.5	12.7
User DelAdj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	30.1 14			6.3	5.4	26.7	25.4	20.6	25.6	25.5	12.7
LOS by Move:	С	B E		A	A	С	С	С	С	С	В
HCM2kAvgQ:	1	4 C	0	3	0	2	0	1	0	0	4
Note: Queue r	reported	l is the	number	of ca	ars per	lane					

San Jose, CA Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background PM

### Intersection #3531: LUNDY AVE/FORTUNE DR



Movement:	L -	- т -	- R	L -	- т	– R	L ·	- т	– R	West Bound L - T - R		
Min. Green:	7 4.0	10 4.0	10 4.0	7 4.0	10 4.0	10 4.0	10 4.0	10 4.0	10 4.0	10 4.0	10 4.0	10 4.0
Volume Module:												
Base Vol:	24	488	5	26	558	21	68		63	20	17	254
Growth 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
Initial Bse:	24	488	5	26	558	21	68	9	63	20	17	254
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	4	19	0	0	10	2	0	0	0	0	0	2
Initial Fut:	28	507	5	26	568	23	68	9	63	20	17	256
User 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
PHF Adj: 1		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	28	507	5	26	568	23	68	9	63	20	17	256
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	28	507	5	26	568	23	68	9	63	20	17	256
PCE Adj: 1			1.00	1.00		1.00		1.00		1.00	1.00	1.00
MLF Adj: 1			1.00	1.00		1.00		1.00		1.00		1.00
FinalVolume:			5		568	23		9		20		256
-												
Saturation Flo			1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
		1900			1900	1900		1900	1900	1900		1900 0.92
Adjustment: 0			0.92 1.00	1.00	1.00	0.92 1.00		1.00	0.92 1.00	0.92		
Lanes: 1 Final Sat.: 1			1750		2.00	1750		1900	1750	1.00 1750		1.00 1750
-												- • • •
Capacity Analy				I		I	I		I	1		I
Vol/Sat: 0				0.01	0.15	0.01	0.04	0.00	0.04	0.01	0.01	0.15
- ,	***	0.10	0.00	0.01	****	0.01	****	0.00	0.01	0.01	0.01	0.10
	7.0	30.3	30.3	21.2	44.4	44.4	11.6	11.6	18.6	11.6	11.6	32.7
Volume/Cap: 0			0.01	0.05		0.02		0.03	0.14	0.07		0.32
-		14.1	12.1	18.2	6.3	5.4		25.5	20.7	25.8		12.8
User DelAdj: 1			1.00	1.00		1.00		1.00	1.00	1.00		1.00
AdjDel/Veh: 3			12.1	18.2		5.4		25.5	20.7	25.8		12.8
LOS by Move:		В		В	A	A	С	С	С	С	С	В
HCM2kAvgQ:		4	0	0	3	0	2	0	1	0	0	4
Note: Queue re	port	ed is	the nu	umber	of ca	ars per	lane	•				

San Jose, CA Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + Project PM Intersection #3531: LUNDY AVE/FORTUNE DR Signal=Protect/Rights=Include Final Vol. 44 571\*\*\* 26 Lanes: 2 ٥ Λ Signal=Permit Rights=Overlap Signal=Permit Rights=Overlap Lanes: Final Vol: Final Vol: Lanes: Vol Cnt Date: 9/17/2019 Cycle Time (sec): 72 69\*\*\* 1 256 Loss Time (sec): 9 0 9 Critical V/C: 0.236 1 17 Avg Crit Del (sec/veh): 95 0 62 Avg Delay (sec/veh): 124 1 20 LOS: в 2 Lanes: 0 n Final Vol: 29 507 Signal=Protect/Rights=Include Approach: North Bound South Bound East Bound West Bound L - T - R L - T - R L - T - RMovement: L – T – R 7 10 10 7 10 10 10 10 10 10 10 10 Min. Green: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 Y+R: 4.0 4.0 4.0 Volume Module: >> Count Date: 17 Sep 2019 << 4:45-5:45 PM 24 488 20 17 Base Vol: 5 26 558 21 68 9 63 254 Growth 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 5 26 558 Initial Bse: 24 488 21 68 9 63 20 17 254 0 0 0 0 3 21 1 0 0 0 Added Vol: 1 -1 4 19 0 0 10 2 0 0 0 0 0 2 PasserBvVol: Initial Fut: 29 507 5 26 571 44 69 20 17 9 62 256 User Adi: 1.00 1.00 1.00 PHF Adj: 1.00 PHF Volume: 29 507 44 5 26 571 69 9 62 20 17 256 0 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 29 507 5 26 571 44 69 9 20 17 62 256 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 MLF Adj: 1.00 1.00 1.00 1.00 29 507 5 26 571 44 69 9 62 20 17 FinalVolume: 2.56 -----||-----||------||-------|| Saturation Flow Module: Adjustment: 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 Lanes: Final Sat.: 1750 3800 1750 1750 3800 1750 1750 1900 1750 1900 1750 Capacity Analysis Module: Vol/Sat: 0.02 0.13 0.00 0.01 0.15 0.03 0.04 0.00 0.04 0.01 0.01 0.15 Crit Moves: \*\*\*\* \* \* \* \* \* \* \* \* Green Time: 7.0 30.2 30.2 21.1 44.4 44.4 11.6 11.6 18.6 11.6 11.6 32.8 Volume/Cap: 0.17 0.32 0.01 0.05 0.24 0.04 0.24 0.03 0.14 0.07 0.06 0.32 Delav/Veh: 30.3 14.1 12.2 18.3 6.3 5.5 26.8 25.5 20.6 25.7 25.6 12.7 1.00 1.00 1.00 1.00 1.00 1.00 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 AdjDel/Veh: 30.3 14.1 12.2 18.3 6.3 5.5 26.8 25.5 20.6 25.7 25.6 12.7 LOS by Move: C B B 0 В A A C C С С С В 4 0 HCM2kAvqQ: 1 3 0 2 0 1 0 0 4

Note: Queue reported is the number of cars per lane.

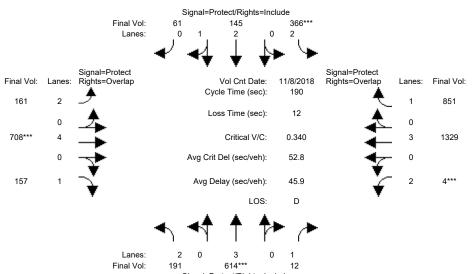
San Jose, CA Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Existing AM

Intersection #5803: MONTAGUE EXPWY/CAPITOL AVE

COMPARE



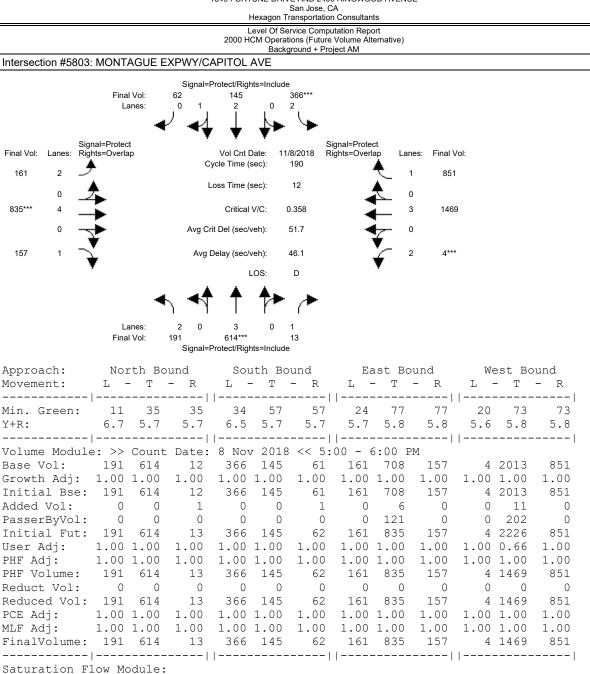
Approach: Movement:	L ·	- T ·	- R	L ·	- Т	– R	L ·	- т	und - R	L ·	- т	– R
Min. Green: Y+R:	11	35 5.7	35	34		57 5.7	24	77	77	20	73 5.8	1
Volume Module	e: >>	Count	Date:	8 Nov	z 2018	<< 5:	00 – (	6:00 P	M			, i
Base Vol:	191	614	12	366	145	61	161	708	157	4	2013	851
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	191	614	12	366	145	61	161	708	157	4	2013	851
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	191	614	12	366	145	61	161	708	157	4	2013	851
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.66	1.00
PHF 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
	191	614	12	366	145	61	161	708	157	4	1329	851
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	191	614	12	366	145	61	161	708	157	4	1329	851
PCE 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
MLF 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
FinalVolume:			12	366	145	61		708	157		1329	851
Saturation F												
			1900		1900	1900		1900	1900		1900	1900
Adjustment:			0.92		1.00	0.95		1.00	0.92		1.00	0.92
	2.00		1.00		2.08	0.92		4.00	1.00		3.00	1.00
Final Sat.:			1750		3940	1657		7600	1750		5700	1750
Capacity Ana	-											
Vol/Sat:			0.01		0.04	0.04	0.05	0.09	0.09	0.00 ****	0.23	0.49
				****				****				
Green Time:			39.0		67.4	67.4		77.0	90.6			115.0
Volume/Cap:			0.03		0.10	0.10		0.23	0.19		0.61	0.80
Delay/Veh: 1			60.5		41.1	41.1		33.0	23.0		43.3	20.7
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh: 1					41.1	41.1		33.0	23.0		43.3	20.7
LOS by Move:			E	E	D	D	E	С	С	E		С
<i>J</i> ~	7		1	. 11	3	3	5		4	0	17	30
Note: Queue :	report	ted is	the n	umber	ot ca	rs per	⊥ane	•				

## 1849 FORTUNE DRIVE AND 2400 RINGWOOD AVENUE San Jose, CA Hexagon Transportation Consultants

			Hexa	San Jose, gon Transportat				
				Operations (Futu	putation Report re Volume Alterna	tive)		
Intersection #5803	: MONTAGUI	E EXPWY/C	APITOL AVE	Backgroun	d AM			
	Final Vol:	Signal= 61	Protect/Rights=Ir 145	1000 366***				
	Lanes:	0 1	2	0 2				
		∢ ∢		* *				
Sig	nal=Protect				Signal=Protect			
Final Vol: Lanes: Rig			Vol Cnt Date:	11/8/2018	Rights=Overlap	Lanes: Final \	/ol:	
161 2 🔔	•	(	Cycle Time (sec):	190	•	1 851	1	
,	▲		Loss Time (sec):	12	<b>▲</b> `			
0 829*** 4	≁		Critical V/C:	0.357		- <sup>0</sup> 3 146	2	
629 4	•		Chucar V/C.	0.357	-	_ 3 140.	2	
0	∽	Avg C	crit Del (sec/veh):	51.8	- 1	- 0		
157 1		Ava	Delay (sec/veh):	46.1	•	_ 2 4***	*	
	*	5			•			
			LOS:	D				
		▲ ◀	▶ ♠ ♠	* *				
		1 1	l I ľ	- (*				
	Lanes:	2 0	3	0 1				
	Final Vol:	191 Signal=	614*** Protect/Rights=Ir	12 nclude				
		· ·	-					
Approach: Movement:	North L - T			Bound T – R		: Bound T - R	West B L - T	
movement:						T - R		
Min. Green:		5 35	•	57 57		77 77	20 73	73
Y+R:	6.7 5.			.7 5.7		5.8 5.8	5.6 5.8	5.8
	1		1					
Volume Modul								0.54
Base Vol: Growth Adj:	191 61 1.00 1.0		366 1 1.00 1.	45 61 00 1.00		708 157 .00 1.00	4 2013 1.00 1.00	851 1.00
Initial Bse:	191 61			45 1.00		708 157	4 2013	851
Added Vol:	0	0 0	0	0 0		0 0	0 0	0
PasserByVol:	0	0 0	0	0 0	0 1	L21 0	0 202	0
Initial Fut:	191 61			45 61		329 157	4 2215	851
User Adj:	1.00 1.0		1.00 1.			.00 1.00	1.00 0.66	1.00
PHF Adj:	1.00 1.0		1.00 1. 366 1	00 1.00 45 61		.00 1.00 329 157	1.00 1.00 4 1462	1.00 851
PHF Volume: Reduct Vol:	191 61 0	0 0	0	40 01 0 0		0 0	4 1402 0 0	0
Reduced Vol:	191 61			45 61		329 157	4 1462	851
PCE Adj:			1.00 1.				1.00 1.00	1.00
MLF Adj:							1.00 1.00	1.00
FinalVolume:						329 157		
Saturation F Sat/Lane:			1900 19	00 1900	1900 19	900 1900	1900 1900	1900
Adjustment:								
Lanes:								
Final Sat.:	3150 570	0 1750	3150 39	40 1657	3150 76	500 1750	3150 5700	1750
Capacity Ana			0 1 0 0	o	0 0	11 0 00	0 00 0 0 0	0.40
Vol/Sat:			0.12 0. ****	04 0.04		.11 0.09	0.00 0.26 ****	0.49
Crit Moves: Green Time:				1 67 1	24.0 77		20.0 73.0	115 0
Volume/Cap:							0.01 0.67	
Delay/Veh:							76.2 44.9	
User DelAdj:			1.00 1.				1.00 1.00	
AdjDel/Veh:	111.6 67.	7 60.5					76.2 44.9	
LOS by Move:	F	E E	E	D D		C C	E D	
	7 1	0 1	1 1	2 2	F	C 1	0 20	20

Note: Queue reported is the number of cars per lane.

HCM2kAvgQ: 7 10 1 11 3 3 5 6 4 0 20 30



PHF	Volume:	191	614	13	366	145	62	161	835	157	4	1469	851
Red	luct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Red	luced Vol:	191	614	13	366	145	62	161	835	157	4	1469	851
PCE	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
MLF	'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
Fin	alVolume:	191	614	13	366	145	62	161	835	157	4	1469	851
Sat	uration F	low Mc	dule:										
Sat	/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj	ustment:	0.83	1.00	0.92	0.83	1.00	0.95	0.83	1.00	0.92	0.83	1.00	0.92
Lan	nes:	2.00	3.00	1.00	2.00	2.07	0.93	2.00	4.00	1.00	2.00	3.00	1.00
Fin	al Sat.:	3150	5700	1750	3150	3921	1676	3150	7600	1750	3150	5700	1750
		1		1	1		1	I		1	1		
										1	1		
Cap	acity Ana	lysis	Modul	e: '						1	1		I
Cap		lysis	Modul 0.11	e: '	0.12				0.11	0.09	0.00	0.26	
Cap Vol	acity Ana	lysis	Modul	e: '									
Cap Vol Cri	oacity Ana /Sat:	lysis 0.06	Module 0.11 ****	e: '	0.12	0.04		0.05	0.11	0.09	0.00	0.26	
Cap Vol Cri Gre Vol	oacity Ana /Sat: t Moves: een Time: .ume/Cap:	lysis 0.06 13.6 0.85	Module 0.11 **** 39.0 0.53	e: 0.01	0.12 **** 42.0	0.04	0.04	0.05	0.11 **** 77.0	0.09	0.00 **** 20.0	0.26	0.49
Cap Vol Cri Gre Vol Del	Acity Ana /Sat: t Moves: een Time: .ume/Cap: .ay/Veh:	lysis 0.06 13.6 0.85 111.6	Module 0.11 **** 39.0 0.53 67.7	e: 0.01 39.0	0.12 **** 42.0 0.53	0.04 67.4 0.10	0.04 67.4 0.10	0.05 24.0 0.40	0.11 **** 77.0 0.27	0.09 90.6	0.00 **** 20.0 0.01	0.26 73.0	0.49
Cap Vol Cri Gre Vol Del	oacity Ana /Sat: t Moves: een Time: .ume/Cap:	lysis 0.06 13.6 0.85 111.6	Module 0.11 **** 39.0 0.53 67.7	e: 0.01 39.0 0.04	0.12 **** 42.0 0.53 65.9	0.04 67.4 0.10 41.1	0.04 67.4 0.10	0.05 24.0 0.40 77.1	0.11 **** 77.0 0.27	0.09 90.6 0.19	0.00 **** 20.0 0.01 76.2	0.26 73.0 0.67	0.49 115.0 0.80
Cap Vol Cri Gre Vol Del Use Adj	Acity Ana /Sat: .t Moves: een Time: .ume/Cap: .ay/Veh: er DelAdj: Del/Veh:	lysis 0.06 13.6 0.85 111.6 1.00 111.6	Module 0.11 **** 39.0 0.53 67.7 1.00 67.7	e: 0.01 39.0 0.04 60.5 1.00 60.5	0.12 **** 42.0 0.53 65.9 1.00 65.9	0.04 67.4 0.10 41.1 1.00 41.1	0.04 67.4 0.10 41.1 1.00	0.05 24.0 0.40 77.1 1.00	0.11 **** 77.0 0.27 33.6 1.00	0.09 90.6 0.19 23.0	0.00 **** 20.0 0.01 76.2 1.00	0.26 73.0 0.67 45.0	0.49 115.0 0.80 20.7 1.00
Cap Vol Cri Gre Vol Del Use Adj LOS	Anacity Ana /Sat: t Moves: een Time: .ume/Cap: .ay/Veh: er DelAdj: .Del/Veh: 5 by Move:	lysis 0.06 13.6 0.85 111.6 1.00 111.6 F	Module 0.11 **** 39.0 0.53 67.7 1.00 67.7 E	e: 0.01 39.0 0.04 60.5 1.00 60.5 E	0.12 **** 42.0 0.53 65.9 1.00 65.9 E	0.04 67.4 0.10 41.1 1.00 41.1 D	0.04 67.4 0.10 41.1 1.00 41.1 D	0.05 24.0 0.40 77.1 1.00 77.1 E	0.11 **** 77.0 0.27 33.6 1.00 33.6 C	0.09 90.6 0.19 23.0 1.00	0.00 **** 20.0 0.01 76.2 1.00 76.2 E	0.26 73.0 0.67 45.0 1.00 45.0 D	0.49 115.0 0.80 20.7 1.00 20.7 C
Cap Vol Cri Gre Vol Del Use Adj LOS HCM	Acity Ana /Sat: .t Moves: een Time: .ume/Cap: .ay/Veh: er DelAdj: Del/Veh:	lysis 0.06 13.6 0.85 111.6 1.00 111.6 F 7	Module 0.11 **** 39.0 0.53 67.7 1.00 67.7 E 10	e: 0.01 39.0 0.04 60.5 1.00 60.5 E 1	0.12 **** 42.0 0.53 65.9 1.00 65.9 E 11	0.04 67.4 0.10 41.1 1.00 41.1 D 3	0.04 67.4 0.10 41.1 1.00 41.1 D 3	0.05 24.0 0.40 77.1 1.00 77.1 E 5	0.11 **** 77.0 0.27 33.6 1.00 33.6 C 6	0.09 90.6 0.19 23.0 1.00 23.0	0.00 **** 20.0 0.01 76.2 1.00 76.2	0.26 73.0 0.67 45.0 1.00 45.0	0.49 115.0 0.80 20.7 1.00 20.7

COMPARE

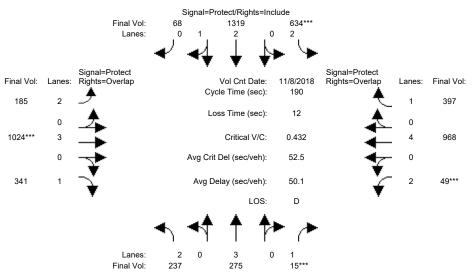
San Jose, CA Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Existing PM

Intersection #5803: MONTAGUE EXPWY/CAPITOL AVE

COMPARE



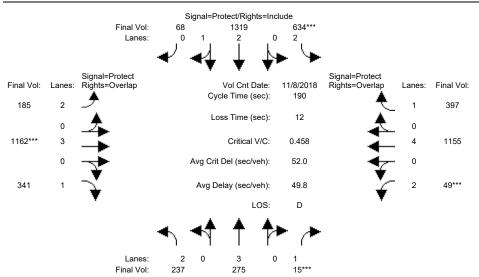
Approach: Movement:	L – Т	– R L	– T –	R L	- т -	R	L – Т	– R
Min. Green: Y+R:	11 35 6.7 5.7	35 3 5.7 6.	4 57 5 5.7	57 2 5.7 5.	4 77 7 5.8	77 5.8	20 73 5.6 5.8	73 5.8
PasserByVol: Initial Fut: User Adj: PHF Adj: PHF Volume: Reduct Vol:	e: >> Count 237 275 1.00 1.00 237 275 0 0 237 275 1.00 1.00 1.00 1.00 237 275 0 0	Date: 8 N 15 63 1.00 1.0 15 63 0 15 63 1.00 1.0 1.00 1.0	ov     2018       4     1319       0     1.00       4     1319       0     0       0     0       4     1319       0     0       1.00     1.00       2     1.00       1.00     1.00       4     1319	<< 5:00 - 68 18 1.00 1.0 68 18 0 68 18 1.00 1.0 1.00 1.0	6:00 PN 5 1552 0 1.00 5 1552 0 0 0 0 5 1552 0 0.66 0 1.00 5 1024	1 341 1.00 1 341 0 0 341 1.00 1		397 1.00 397 0 0 397 1.00 1.00 397 0
Reduced Vol: PCE Adj: MLF Adj: FinalVolume:	1.00 1.00 1.00 1.00 237 275	1.00 1.0 1.00 1.0 15 63	0 1.00 1 4 1319	1.00 1.0 1.00 1.0 68 18	5 1024 0 1.00 0 1.00 5 1024	1.00 1 341	49 968 .00 1.00 .00 1.00 49 968	1.00 397
Saturation F Sat/Lane: Adjustment: Lanes: Final Sat.:	1900 1900 0.83 1.00 2.00 3.00 3150 5700	19001900.920.81.002.01750315	3 0.98 ( 0 2.85 ( 0 5325	0.95 0.8 0.15 2.0 275 315	0 1900 3 1.00 0 3.00 0 5700	0.92 0 1.00 2 1750 3	.900 1900 0.83 1.00 2.00 4.00 3150 7600	0.92 1.00 1750
Capacity Ana Vol/Sat: Crit Moves: Green Time: Volume/Cap: Delay/Veh: User DelAdj: AdjDel/Veh: LOS by Move: HCM2kAvgQ: Note: Queue	0.08 0.05 16.2 35.0 0.88 0.26 112.5 66.6 1.00 1.00 112.5 66.6 F E 9 4	0.01 0.2 **** *** 35.0 46. 0.05 0.8 63.8 76. 1.00 1.0 63.8 76. E 1 2	* 0 64.8 0 3 0.73 0 0 56.3 5 0 1.00 5 0 56.3 5 E E 3 24	64.8 24. 0.73 0.4 56.3 77. 1.00 1.0 56.3 77. E 24	6 11	* 93.2 2 0.40 0 24.2 7 1.00 1	0.02 0.13 **** 20.0 73.0 0.15 0.33 7.5 37.7 .00 1.00 7.5 37.7 E D 1 8	119.0 0.36 8.9 1.00 8.9

San Jose, CA Hexagon Transportation Consultants

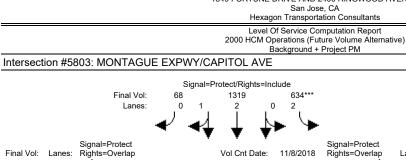
Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background PM

### Intersection #5803: MONTAGUE EXPWY/CAPITOL AVE

COMPARE



Approach: Movement:									und - R		est Bo - T	
		35				57					73	
Y+R:		5.7							5.8		5.8	
Volume Module										1		
Base Vol:	237	275	15	634	1319	68	185	1552	341	49	968	397
Growth 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
Initial Bse:	237	275	15	634	1319	68	185	1552	341	49	968	397
Added Vol:		0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0		0			0	208	0	0	187	0
Initial Fut:			15	634	1319	68	185	1760	341	49	1155	397
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.66	1.00	1.00	1.00	1.00
PHF 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
PHF Volume:	237	275	15	634	1319	68	185	1162	341	49	1155	397
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:			15	634		68			341		1155	397
PCE 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
MLF Adj:			1.00			1.00		1.00			1.00	
FinalVolume:									341		1155	397
Saturation F												
		1900		1900		1900		1900			1900	
Adjustment:			0.92		0.98	0.95		1.00	0.92		1.00	0.92
Lanes:			1.00		2.85	0.15		3.00			4.00	1.00
Final Sat.:			1750			275		5700	1750		7600	1750
	1											
Capacity Ana												
Vol/Sat:	0.08	0.05	0.01			0.25	0.06	0.20 ****	0.19	0.02 ****	0.15	0.23
Crit Moves:	1 6 0	0 5 0	****		<i></i>	<i>c</i>						110 0
Green Time:			35.0			64.8		77.0	93.2			119.0
Volume/Cap:			0.05		0.73	0.73		0.50	0.40		0.40	0.36
Delay/Veh:			63.8		56.3	56.3		37.7	24.2		38.8	8.9
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	
AdjDel/Veh:					56.3	56.3		37.7	24.2		38.8	8.9
LOS by Move:				E		E			C 1 0	E		A
HCM2kAvgQ:				23		24	6		10	1	10	6
Note: Queue :	repor	lea is	une n	unper	or ca	rs per	⊥ane	•				



COMPARE

185

1163\*\*\*

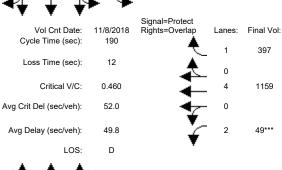
341

2

0

3

0



Lanes: 3 2 0 0 17\*\* Final Vol: 237 275 Signal=Protect/Rights=Include

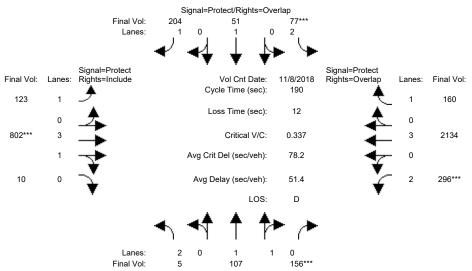
Approach:	No	rth Bou	und	Soi	uth Bo	und	Ea	ast Bc	ound	We		
Movement:	L.	- T -	- R	L ·	- T	- R	L ·	- T	- R	L -	- Т	
Min. Green:	11	35	 35	34	57	 57	24		77	20		73
Y+R:									5.8			
Volume Module	e: >>	Count	Date:	8 Nov	v 2018	<< 5:0	00 -	6:00 E	M			
Base Vol:	237	275	15	634	1319	68	185	1552		49	968	397
Growth Adj:	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	237		15	634		68			341	49	968	397
Added Vol:		0	2	0	0	0	0		0	0	4	0
PasserByVol:				0		0	0	208	0	0	187	0
Initial Fut:									341		1159	397
User Adj:			1.00		1.00	1.00		0.66	1.00		1.00	1.00
PHF Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Volume:			17	634	1319	68	185	1163	341	49	1159	397
Reduct Vol:			0	0	0	0	0	0	0	0	0	0
Reduced Vol:			17			68			341		1159	
PCE Adj:	1.00	1.00	1.00		1.00	1.00		1.00			1.00	
MLF Adj:						1.00		1.00			1.00	
FinalVolume:					1319				341		1159	
Saturation F				1	1 0 0 0	1 0 0 0	1	1 0 0 0	1 0 0 0	1	1 0 0 0	1 0 0 0
		1900		1900		1900		1900			1900	
Adjustment:			0.92		0.98	0.95		1.00	0.92		1.00	0.92
Lanes:			1.00			0.15		3.00	1.00		4.00	1.00
Final Sat.:			1750			275		5700	1750		7600	1750
Capacity Anal												
Vol/Sat:	-		e. 0.01	0 20	0 25	0.25	0 06	0.20	0.19	0 02	0.15	0.23
Crit Moves:		0.05	****		0.20	0.25		****		****	0.15	0.20
Green Time:			35.0			64.8		77.0	93.2		73 0	119.0
Volume/Cap:			0.05		0.73	0.73		0.50	0.40		0.40	0.36
Delay/Veh:			63.9		56.3	56.3		37.7	24.2		38.8	8.9
User DelAdj:					1.00	1.00		1.00	1.00		1.00	
AdjDel/Veh:					56.3	56.3		37.7			38.8	8.9
LOS by Move:				70.0 E		50.5 E			24.2 C		D D	0.5 A
HCM2kAvqQ:			1	2.3		24	6		10	1		6
Note: Queue :			-				-		τU	T	τU	0
note: guede	- CPOI	CCU 10			or ca	TO PCT	Tanc	•				

San Jose, CA Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Existing AM

Intersection #5804: MONTAGUE EXPWY/MILPITAS BLVD



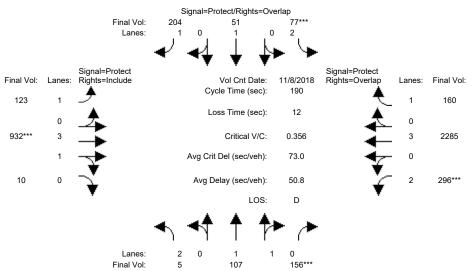
Approach: Movement:											est Bo - T	
-												
Min. Green:	7	10	10	7	10	10	42	139	139	8	97	97
		4.0				4.0				4.0	4.0	4.0
-												
Volume Module:												
Base Vol:	5	107	156	77	51	204	123	802	10	296	2736	160
Growth Adj: 1	.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	107	156	77	51	204	123	802	10		2736	160
Added Vol:	0	0	0	0		0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	107	156	77		204	123	802	10	296	2736	160
User Adj: 1			1.00		1.00	1.00	1.00	1.00	1.00	1.00	0.78	1.00
PHF Adj: 1			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	107	156	77	51	204	123	802	10	296	2134	160
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	107	156	77	51	204	123	802	10	296	2134	160
PCE 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
MLF Adj: 1			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:			156	77	51	204	123	802	10	296	2134	160
-												
Saturation Flo	w Mo	dule:										
Sat/Lane: 1	900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment: 0	.83	1.00	0.92	0.83	1.00	0.92	0.92	0.99	0.95	0.83	1.00	0.92
Lanes: 2	.00	1.00	1.00	2.00	1.00	1.00	1.00	3.95	0.05	2.00	3.00	1.00
Final Sat.: 3	150	1900	1750	3150	1900	1750	1750	7407	92	3150	5700	1750
-												
Capacity Analy	sis	Modul	e:									
Vol/Sat: 0	.00	0.06	0.09	0.02	0.03	0.12	0.07	0.11	0.11	0.09	0.37	0.09
Crit Moves:			* * * *	* * * *				* * * *		* * * *		
Green Time:	9.3	15.6	15.6	7.0	13.3	60.2	47.0	139	139.0	16.4	108	115.5
Volume/Cap: 0	.03	0.69	1.09	0.66	0.38	0.37	0.28	0.15	0.15	1.09	0.66	0.15
Delay/Veh: 8	6.2	90.0	170.3	103.9	86.3	50.6	60.1	13.6	13.6	166.6	38.0	22.8
User DelAdj: 1	.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh: 8	6.2	90.0	170.3	103.9	86.3	50.6	60.1	13.6	13.6	166.6	38.0	22.8
LOS by Move:	F	F	F	F	F	D	Ε	В	В	F	D	С
- J~-		7		-	3	10			6	15	33	6
Note: Queue re	port	ted is	the r	number	of ca	rs per	lane	•				

San Jose, CA Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Background AM

Intersection #5804: MONTAGUE EXPWY/MILPITAS BLVD



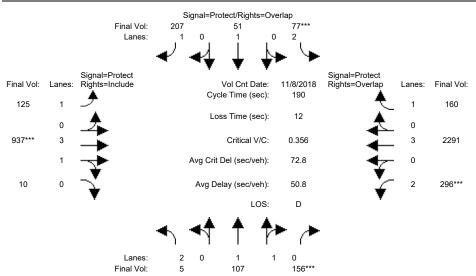
Approach: Movement:	L ·	- т	- R	L ·	- т	– R	L ·	- т	– R	L ·	- т	– R
Min. Green: Y+R:	74.0	10 4.0	10 4.0	7 4.0	10 4.0	10 4.0	42 4.0	139 4.0	139 4.0	8 4.0	97 4.0	97 4.0
Volume Module												
Base Vol:	5	107	156	77		204	123	802				160
Growth Adj:			1.00		1.00	1.00		1.00			1.00	1.00
Initial Bse:			156	77		204	123	802	10		2736	160
Added Vol:	0	-	0	0	0	0	0	0		0	0	0
PasserByVol:			0	0	-	-	0	130	0	0	193	0
Initial Fut:			156	77		204	123	932	10		2929	160
User Adj:			1.00		1.00	1.00		1.00			0.78	1.00
PHF Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Volume:			156	77	51	204	123	932	10	296	2285	160
Reduct Vol:	0	0	0	0	0	-		0	0		0	0
Reduced Vol:	5		156	77		204	123		10		2285	160
PCE Adj:			1.00		1.00	1.00		1.00			1.00	
MLF Adj:			1.00		1.00	1.00		1.00			1.00	1.00
FinalVolume:						204			10		2285	160
Saturation F												
			1900		1900	1900		1900			1900	
Adjustment:			0.92		1.00	0.92		0.99			1.00	0.92
Lanes:			1.00		1.00	1.00		3.96			3.00	1.00
Final Sat.:			1750		1900	1750		7420			5700	
Capacity Ana	-											
Vol/Sat:			0.09		0.03	0.12	0.07	0.13			0.40	0.09
			* * * *					****		* * * *		
Green Time:			15.6	7.0		60.2			139.0			115.5
Volume/Cap:			1.09		0.38	0.37		0.17			0.70	
Delay/Veh:	86.2	90.0	170.3	103.9	86.3	50.6	60.1	13.9	13.9	166.6	39.9	22.8
User DelAdj:						1.00		1.00			1.00	
AdjDel/Veh:				103.9	86.3	50.6	60.1	13.9	13.9	166.6	39.9	22.8
LOS by Move:				F			E					С
· ~ ·		7		4	0	10	6		7	15	36	6
Note: Queue :	repor	ted is	s the 1	number	of ca	rs per	lane	•				

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Background + Project AM

Intersection #5804: MONTAGUE EXPWY/MILPITAS BLVD

COMPARE



						und						
Movement:	L ·	- T	– R	L -	- Т	- R	L -	- T	– R	L -		- R
		10				10						
Y+R:			4.0			4.0						4.0
Volume Module												
Base Vol:	5	107	156	77	51	204	123	802	10	296	2736	160
Growth 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
Initial Bse:	5	107	156	77			123		10	296	2736	160
Added Vol:	0	0	0	0	0	3	2	5	0	0	8	0
PasserByVol:	0	0	0	0		0	0	130	0	0	193	0
Initial Fut:	5	107	156	77	51	207	125	937	10	296	2937	160
User Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.78	1.00
PHF Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	107	156	77	51	207	125	937	10		2291	160
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	107	156	77	51	207	125	937	10	296	2291	160
PCE Adj:			1.00		1.00	1.00		1.00		1.00	1.00	1.00
MLF Adj:			1.00		1.00	1.00		1.00		1.00	1.00	1.00
FinalVolume:						207					2291	
Saturation F												
		1900			1900	1900		1900			1900	
Adjustment:			0.92		1.00	0.92		0.99			1.00	0.92
Lanes:			1.00		1.00	1.00		3.96			3.00	1.00
Final Sat.:			1750		1900	1750			79		5700	1750
Capacity Anal	-					0 1 0	0 0 7	0 1 0	0 1 0		0 10	0 0 0
Vol/Sat:			0.09 ****	U.UZ ****	0.03	0.12	0.07	0.13	0.13	U.U9 ****	0.40	0.09
					10.0	<u> </u>					1 0 0	
Green Time:					13.3	60.2	47.0		139.0			115.5
Volume/Cap:			1.09		0.38	0.37		0.17			0.70	0.15
Delay/Veh:						50.7		13.9		166.6		22.8
User DelAdj:				1.00		1.00		1.00			1.00	
AdjDel/Veh:						50.7		13.9		166.6		22.8
LOS by Move:				F		D	E					C
		7		-	3	10			7	15	36	6
Note: Queue 1	repor	ted is	the i	number	oi ca	rs per	⊥ane	•				

San Jose, CA

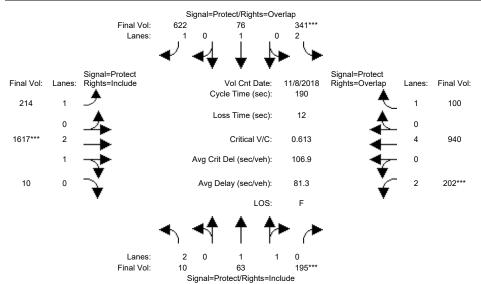
Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Existing PM

Intersection #5804: MONTAGUE EXPWY/MILPITAS BLVD

COMPARE



Approach: North Bound South Bound East Bound West Bound  $L - T - R \qquad L - T - R \qquad L - T - R$ Movement: L – T – R 7 10 10 7 10 10 42 139 139 8 97 97 Min. Green: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 Y+R: 4.0 4.0 4.0 Volume Module: >> Count Date: 8 Nov 2018 << 5:00 - 6:00 PM 202 940 Base Vol: 10 63 195 341 76 622 214 2073 10 100 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 341 76 622 Initial Bse: 10 63 195 214 2073 10 202 940 100 0 0 0 0 0 0 0 0 0 0 0 0 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 PasserBvVol: Initial Fut: 10 63 195 341 76 622 214 2073 202 940 10 100 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.78 1.00 1.00 1.00 1.00 User Adi: PHF Adj: 1.00 1.00 1.00 1.00 PHF Volume: 10 63 195 341 76 10 202 940 622 214 1617 100 0 0 0 0 0 0 0 0 0 Reduct Vol: 0 0 0 Reduced Vol: 10 63 214 1617 341 76 202 940 195 622 10 100 PCE 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 1.00 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 10 63 195 341 76 622 214 1617 10 202 940 FinalVolume: 100 -----||-----||------||-------|| Saturation Flow Module: Adjustment: 0.83 1.00 0.92 0.83 1.00 0.92 0.92 0.98 0.95 0.83 1.00 0.92 2.00 1.00 1.00 2.00 1.00 1.00 1.00 2.98 0.02 2.00 4.00 1.00 Lanes: Final Sat.: 3150 1900 1750 3150 1900 1750 1750 5566 34 3150 7600 1750 Capacity Analysis Module: Vol/Sat: 0.00 0.03 0.11 0.11 0.04 0.36 0.12 0.29 0.29 0.06 0.12 0.06 \* \* \* \* \* \* \* \* Crit Moves: \* \* \* \* \* \* \* \* Green Time: 7.0 15.3 15.3 14.9 23.2 67.9 44.7 139 139.0 8.8 103 118.0 Volume/Cap: 0.09 0.41 1.38 1.38 0.33 1.00 0.52 0.40 0.40 1.38 0.23 0.09 Delav/Veh: 88.7 83.5 289.3 283.0 77.1 95.7 66.1 17.2 17.2 299.5 29.4 20.8 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 AdjDel/Veh: 88.7 83.5 289.3 283.0 77.1 95.7 66.1 17.2 17.2 299.5 29.4 20.8 LOS by Move: F F F F E F E В В F С С 4 21 45 HCM2kAvqQ: 0 21 4 12 19 19 13 9 4 Note: Queue reported is the number of cars per lane.

San Jose, CA

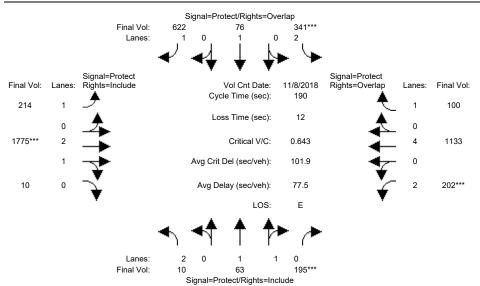
Hexagon Transportation Consultants

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

Background PM

Intersection #5804: MONTAGUE EXPWY/MILPITAS BLVD

COMPARE



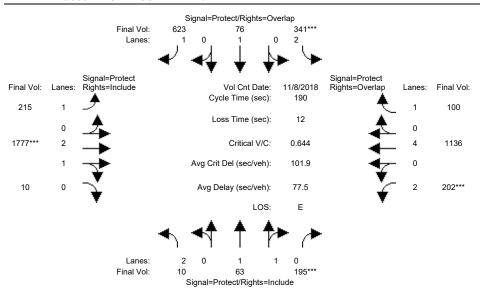
Approach: North Bound South Bound East Bound West Bound  $L - T - R \qquad L - T - R \qquad L - T - R$ Movement: L – T – R 7 10 10 7 10 10 42 139 139 8 97 97 Min. Green: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 Y+R: 4.0 4.0 4.0 Volume Module: >> Count Date: 8 Nov 2018 << 5:00 - 6:00 PM 202 940 Base Vol: 10 63 195 341 76 622 214 2073 10 100 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 341 76 10 622 Initial Bse: 10 63 195 214 2073 202 940 100 0 0 0 0 0 0 0 0 0 0 0 0 Added Vol: 0 0 0 0 0 0 0 202 0 0 193 PasserBvVol: 0 Initial Fut: 10 63 195 341 76 622 214 2275 202 1133 10 100 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.78 1.00 1.00 1.00 1.00 User Adi: PHF Adj: 1.00 1.00 1.00 1.00 PHF Volume: 10 63 195 214 1775 10 341 76 622 202 1133 100 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 10 63 622 341 76 214 1775 10 195 202 1133 100 PCE 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 1.00 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 10 63 195 341 76 622 214 1775 10 202 1133 FinalVolume: 100 -----||-----||------|| Saturation Flow Module: Adjustment: 0.83 1.00 0.92 0.83 1.00 0.92 0.92 0.98 0.95 0.83 1.00 0.92 2.00 1.00 1.00 2.00 1.00 1.00 1.00 2.98 0.02 2.00 4.00 1.00 Lanes: Final Sat.: 3150 1900 1750 3150 1900 1750 1750 5569 31 3150 7600 1750 Capacity Analysis Module: Vol/Sat: 0.00 0.03 0.11 0.11 0.04 0.36 0.12 0.32 0.32 0.06 0.15 0.06 \* \* \* \* \* \* \* \* Crit Moves: \* \* \* \* \* \* \* \* Green Time: 7.0 15.3 15.3 14.9 23.2 67.9 44.7 139 139.0 8.8 103 118.0 Volume/Cap: 0.09 0.41 1.38 1.38 0.33 1.00 0.52 0.44 0.44 1.38 0.27 0.09 Delav/Veh: 88.7 83.5 289.3 283.0 77.1 95.7 66.1 17.9 17.9 299.5 30.3 20.8 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 AdjDel/Veh: 88.7 83.5 289.3 283.0 77.1 95.7 66.1 17.9 17.9 299.5 30.3 20.8 LOS by Move: F F F F E F E В В F С С 4 45 HCM2kAvqQ: 0 21 21 4 12 22 22 13 11 4 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations (Future Volume Alternative) Background + Project PM

Intersection #5804: MONTAGUE EXPWY/MILPITAS BLVD

COMPARE



Approach: North Bound South Bound East Bound West Bound  $L - T - R \qquad L - T - R \qquad L - T - R$ Movement: L – T – R 7 10 10 7 10 10 42 139 139 8 97 97 Min. Green: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 Y+R: 4.0 4.0 4.0 Volume Module: >> Count Date: 8 Nov 2018 << 5:00 - 6:00 PM 202 940 Base Vol: 10 63 195 341 76 622 214 2073 10 100 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 341 76 214 2073 Initial Bse: 10 63 195 622 10 202 940 100 0 0 0 1 1 3 0 0 0 0 0 3 0 Added Vol: 0 PasserByVol: 0 0 0 0 0 202 0 0 193 0 Initial Fut: 10 63 195 341 76 623 215 2278 202 1136 10 100 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.78 1.00 1.00 1.00 1.00 User Adi: PHF Adj: 1.00 1.00 1.00 1.00 623 PHF Volume: 10 63 195 215 1777 10 341 76 202 1136 100 0 0 0 0 0 0 0 0 0 0 0 Reduct Vol: 0 Reduced Vol: 10 63 623 195 341 76 215 1777 10 202 1136 100 PCE 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 1.00 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 10 63 195 341 76 623 215 1777 10 202 1136 FinalVolume: 100 -----||-----||------|| Saturation Flow Module: Adjustment: 0.83 1.00 0.92 0.83 1.00 0.92 0.92 0.98 0.95 0.83 1.00 0.92 Lanes: 2.00 1.00 1.00 2.00 1.00 1.00 1.00 2.98 0.02 2.00 4.00 1.00 Final Sat.: 3150 1900 1750 3150 1900 1750 1750 5569 31 3150 7600 1750 Capacity Analysis Module: Vol/Sat: 0.00 0.03 0.11 0.11 0.04 0.36 0.12 0.32 0.32 0.06 0.15 0.06 \*\*\*\* \* \* \* \* Crit Moves: \* \* \* \* \* \* \* \* Green Time: 7.0 15.3 15.3 14.9 23.2 67.9 44.7 139 139.0 8.8 103 118.0 Volume/Cap: 0.09 0.41 1.38 1.38 0.33 1.00 0.52 0.44 0.44 1.38 0.28 0.09 Delav/Veh: 88.7 83.5 289.3 283.0 77.1 96.1 66.2 17.9 17.9 299.5 30.3 20.8 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 AdjDel/Veh: 88.7 83.5 289.3 283.0 77.1 96.1 66.2 17.9 17.9 299.5 30.3 20.8 LOS by Move: F F F F E F E B В F С С 4 21 45 HCM2kAvqQ: 0 21 4 12 22 22 13 11 4 Note: Queue reported is the number of cars per lane.

### Appendix F Queue Length Calculations

Tradezone/Montag	ue	
NB		
AM		
Existing Conditions		
Avg. Queue Per La	ne in Veh=	15.5
Percentile =	95%	22

Tradezone/Montague	
NB	
AM	
<b>Background Condition</b>	IS
Avg. Queue Per Lane	in Veh=
Percentile =	95%
	NB AM Background Condition Avg. Queue Per Lane

### Tradezone/Montague NB AM

16.4

Background Plus Project Conditions Avg. Queue Per Lane in Veh= 16.8 Percentile = 95% 

		Ni mala an af			No				Niverska svast
Individual	Cumulative	Number of	Individual	Cumulativa	Number of		Individual	Cumulativa	Number of
Individual	Probability	Queued Vehicles		Cumulative	Queued Vehicles			Cumulative Probability	Queued Vehicles
Probability	-		Probability	Probability			Probability	-	venicies
0.0000	0.0000	0	0.0000	0.0000	0		0.0000	0.0000	0
0.0000	0.0000	1	0.0000	0.0000	1		0.0000	0.0000	1
0.0000	0.0000	2	0.0000	0.0000	2		0.0000	0.0000	2
0.0001	0.0001	3	0.0001	0.0001	3		0.0000	0.0000	3
0.0005	0.0006	4	0.0002	0.0003	4		0.0002	0.0002	4
0.0014	0.0020	5	0.0007	0.0010	5		0.0006	0.0008	5
0.0037	0.0057	6	0.0020	0.0031	6		0.0016	0.0024	6
0.0081	0.0139	7	0.0048	0.0079	7		0.0038	0.0061	7
0.0157	0.0296	8	0.0098	0.0176	8		0.0080	0.0141	8
0.0270	0.0565	9	0.0178	0.0355	9		0.0149	0.0290	9
0.0417	0.0982	10	0.0293	0.0647	10		0.0250	0.0539	10
0.0585	0.1567	11	0.0436	0.1084	11		0.0381	0.0920	11
0.0753	0.2320	12	0.0596	0.1680	12		0.0534	0.1454	12
0.0895	0.3215	13	0.0752	0.2432	13		0.0690	0.2144	13
0.0988	0.4203	14	0.0881	0.3313	14		0.0828	0.2971	14
0.1018	0.5221	15	0.0963	0.4276	15		0.0927	0.3898	15
0.0983	0.6204	16	0.0987	0.5263	16		0.0973	0.4871	16
0.0893	0.7097	17	0.0952	0.6216	17		0.0962	0.5833	17
0.0767	0.7863	18	0.0868	0.7084	18		0.0898	0.6730	18
0.0623	0.8486	19	0.0749	0.7833	19		0.0794	0.7524	19
0.0481	0.8968	20	0.0614	0.8447	20		0.0667	0.8191	20
0.0354	0.9322	21	0.0480	0.8927	21		0.0533	0.8724	21
0.0249	0.9571	22	0.0358	0.9284	22		0.0407	0.9131	22
0.0167	0.9738	23	0.0255	0.9539	23		0.0297	0.9429	23
0.0108	0.9846	24	0.0174	0.9713	24		0.0208	0.9637	24
0.0066	0.9912	25	0.0114	0.9828	25		0.0140	0.9777	25
0.0040	0.9952	26	0.0072	0.9900	26		0.0090	0.9867	26
0.0023	0.9974	27	0.0044	0.9944	27		0.0056	0.9924	27
0.0012	0.9987	28	0.0026	0.9969	28		0.0034	0.9957	28
0.0007	0.9993	29	0.0015	0.9984	29		0.0020	0.9977	29
0.0003	0.9997	30	0.0008	0.9992	30		0.0011	0.9988	30
0.0002	0.9998	31	0.0004	0.9996	31		0.0006	0.9994	31
0.0001	0.9999	32	0.0002	0.9998	32		0.0003	0.9997	32
0.0000	1.0000	33	0.0001	0.9999	33		0.0002	0.9999	33
0.0000	1.0000	34	0.0001	1.0000	34		0.0001	0.9999	34
0.0000	1.0000	35	0.0000	1.0000	35		0.0000	1.0000	35
0.0000	1.0000	36	0.0000	1.0000	36		0.0000	1.0000	36
0.0000	1.0000	37	0.0000	1.0000	37		0.0000	1.0000	37
0.0000	1.0000	38	0.0000	1.0000	38		0.0000	1.0000	38
0.0000	1.0000	39	0.0000	1.0000	39		0.0000	1.0000	39
0.0000	1.0000	40	0.0000	1.0000	40		0.0000	1.0000	40
0.0000	1.0000	41	0.0000	1.0000	41		0.0000	1.0000	41
0.0000	1.0000	42	0.0000	1.0000	42		0.0000	1.0000	42
0.0000	1.0000	43	0.0000	1.0000	43		0.0000	1.0000	43
0.0000	1.0000	44	0.0000	1.0000	44		0.0000	1.0000	44
0.0000	1.0000	45	0.0000	1.0000	45		0.0000	1.0000	45
0.0000	1.0000	46	0.0000	1.0000	46		0.0000	1.0000	46
0.0000	1.0000	47	0.0000	1.0000	47		0.0000	1.0000	47
0.0000	1.0000	48	0.0000	1.0000	48		0.0000	1.0000	48
0.0000	1.0000	49	0.0000	1.0000	49		0.0000	1.0000	49
0.0000	1.0000	50	0.0000	1.0000	50		0.0000	1.0000	50
0.0000	1.0000	51	0.0000	1.0000	51		0.0000	1.0000	51
0.0000	1.0000	52	0.0000	1.0000	52		0.0000	1.0000	52
0.0000	1.0000	53	0.0000	1.0000	53		0.0000	1.0000	53
0.0000	1.0000	54	0.0000	1.0000	54		0.0000	1.0000	54
0.0000	1.0000	55	0.0000	1.0000	55		0.0000	1.0000	55
0.0000	1.0000	56	0.0000	1.0000	56		0.0000	1.0000	56
0.0000	1.0000	57	0.0000	1.0000	57		0.0000	1.0000	57
0.0000	1.0000	58	0.0000	1.0000	58		0.0000	1.0000	58
0.0000	1.0000	59	0.0000	1.0000	59		0.0000	1.0000	59
0.0000	1.0000	60	0.0000	1.0000	60		0.0000	1.0000	60
0.0000	1.0000	61	0.0000	1.0000	61		0.0000	1.0000	61
0.0000	1.0000	62	0.0000	1.0000	62		0.0000	1.0000	62
0.0000	1.0000	63	0.0000	1.0000	63		0.0000	1.0000	63
0.0000	1.0000	64	0.0000	1.0000	64		0.0000	1.0000	64
0.0000	1.0000	65	0.0000	1.0000	65		0.0000	1.0000	65
						1			

M1 5/11/2022

Tradezone/Montag	ue	
NB		
PM		
Existing Conditions	5	
Avg. Queue Per La	ne in Veh=	13.6
Percentile =	95%	20

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ontilo	3370	20		
		Number of	1 1	
Individual	Cumulative	Queued		Individual
Probability	Probability	Vehicles		Probability
0.0000	0.0000	0		0.0000
0.0000	0.0000	1		0.0000
0.0001	0.0001	2		0.0000
0.0005	0.0007	3		0.0001
0.0018	0.0024	4		0.0005
0.0048	0.0072	5		0.0014
0.0109	0.0182	6		0.0036
0.0212	0.0394	7		0.0080
0.0360	0.0754	8		0.0154
0.0545	0.1299	9		0.0265
0.0740	0.2039	10		0.0411
0.0915	0.2954	11		0.0579
0.1037	0.3992	12		0.0747
0.1085	0.5076	13		0.0890
0.1054	0.6130	14		0.0984
0.0955	0.7085	15		0.1016
0.0812	0.7897	16		0.0984
0.0649	0.8546	17		0.0896
0.0490	0.9037	18		0.0771
0.0351	0.9388	19		0.0629
0.0239	0.9626	20		0.0487
0.0155	0.9781	21		0.0359
0.0096	0.9876	22		0.0253
0.0056	0.9933	23		0.0170
0.0032	0.9965	24		0.0110
0.0017	0.9982	25		0.0068
0.0009	0.9991	26		0.0041
0.0005	0.9996	27		0.0023
0.0002	0.9998	28		0.0013
0.0001	0.9999	29		0.0007
0.0000	1.0000	30		0.0004
0.0000	1.0000	31		0.0002
0.0000	1.0000	32		0.0001
0.0000	1.0000	33		0.0000
0.0000	1.0000	34		0.0000
0.0000	1.0000	35		0.0000
0.0000	1.0000	36		0.0000
0.0000	1.0000	37		0.0000
0.0000	1.0000	38		0.0000
0.0000	1.0000	39		0.0000
0.0000	1.0000	40		0.0000
0.0000	1.0000	41		0.0000
0.0000	1.0000	42		0.0000
0.0000	1.0000	43		0.0000
0.0000	1.0000	44		0.0000
0.0000	1.0000	45		0.0000
0.0000	1.0000	46		0.0000
0.0000	1.0000	47		0.0000
0.0000	1.0000	48		0.0000
0.0000	1.0000	49		0.0000
0.0000	1.0000	50		0.0000
0.0000	1.0000	51		0.0000
0.0000	1.0000	52		0.0000

Tradezone/Monta NB PM Background Cond Avg. Queue Per L Percentile =	litions	15.5 22
Individual Probability	Cumulative Probability	Number of Queued Vehicles

0.0000

0.0000

0.0000

0.0001 0.0006

0.0020 0.0056

0.0136

0.0290

0.0555

0.0966

0.1545

0.2292

0.3182

0.4166

0.5183

0.6167

0.7063

0.7834

0.8463

0.8950

0.9309

0.9562

0.9732

0.9842

0.9910

0.9950

0.9973

0.9986

0.9993

0.9997

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### Tradezone/Montague NB ΡM

**Background Plus Project Conditions** Avg. Queue Per Lane in Veh= Percentile = 05%

15.7 22

Percentile =	95%	22
1		Number of
Individual	Cumulative	Queued
Probability	Probability	Vehicles
0.0000	0.0000	0
0.0000	0.0000	1
0.0000 0.0001	0.0000 0.0001	2 3
0.0001	0.0005	4
0.0012	0.0017	5
0.0032	0.0049	6
0.0071	0.0120	7
0.0139 0.0243	0.0259 0.0502	8 9
0.0243	0.0883	9 10
0.0544	0.1427	11
0.0712	0.2139	12
0.0859	0.2998	13
0.0964 0.1008	0.3962 0.4970	14 15
0.1008	0.5959	16
0.0914	0.6873	17
0.0797	0.7670	18
0.0658	0.8328	19
0.0517 0.0386	0.8844 0.9231	20 21
0.0380	0.9506	21
0.0188	0.9694	23
0.0123	0.9817	24
0.0077	0.9894	25
0.0047	0.9941 0.9968	26 27
0.0027 0.0015	0.9983	27
0.0008	0.9992	29
0.0004	0.9996	30
0.0002	0.9998	31
0.0001 0.0001	0.9999 1.0000	32 33
0.0001	1.0000	33 34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000 0.0000	1.0000 1.0000	38 39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000 0.0000	1.0000 1.0000	44 45
0.0000	1.0000	45
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000 0.0000	1.0000 1.0000	50 51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000 0.0000	1.0000 1.0000	56 57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62 63
0.0000	1.0000	63 64

64

65

1.0000

1.0000

Tradezone/Montag WBL	gue	
AM		
Existing Condition	s	
Avg. Queue Per La	ane in Veh=	3.3
Percentile =	95%	7

Tradezone/Montague	
WBL	
AM	
Background Conditions	
Avg. Queue Per Lane in Veh=	
Percentile = 95%	

4.0

Tradezone/Montag	gue
WBL	
AM	
Background Plus I	Project Conditions
Avg. Queue Per L	ane in Veh=
Percentile =	95%

Number of

Queued

Vehicles

reroentile	5570			0070	Ū		0070
		Number of			Number of		
Individual	Cumulative	Queued	Individual	Cumulative	Queued	Individual	Cumulative
Probability	Probability	Vehicles	Probability	Probability	Vehicles	Probability	Probability
0.0369	0.0369	0	0.0183	0.0183	0	0.0106	0.0106
0.1217	0.1586	1	0.0733	0.0916	1	0.0481	0.0586
0.2008	0.3594	2	0.1465	0.2381	2	0.1094	0.1680
0.2209	0.5803	3	0.1954	0.4335	3	0.1659	0.3339
0.1823	0.7626	4	0.1954	0.6288	4	0.1887	0.5226
0.1203	0.8829	5	0.1563	0.7851	5	0.1717	0.6944
0.0662	0.9490	6	0.1042	0.8893	6	0.1302	0.8246
0.0312	0.9802	7	0.0595	0.9489	7	0.0846	0.9092
0.0129	0.9931	8	0.0298	0.9786	8	0.0481	0.9574
0.0047	0.9978	9	0.0132 0.0053	0.9919	9	0.0243	0.9817
0.0016 0.0005	0.9994 0.9998	10 11	0.0053	0.9972 0.9991	10 11	0.0111 0.0046	0.9928 0.9974
0.0003	1.0000	12	0.0006	0.9997	12	0.0040	0.9991
0.0000	1.0000	12	0.0002	0.9999	12	0.0006	0.9997
0.0000	1.0000	14	0.0002	1.0000	14	0.0002	0.9999
0.0000	1.0000	15	0.0000	1.0000	15	0.0001	1.0000
0.0000	1.0000	16	0.0000	1.0000	16	0.0000	1.0000
0.0000	1.0000	17	0.0000	1.0000	17	0.0000	1.0000
0.0000	1.0000	18	0.0000	1.0000	18	0.0000	1.0000
0.0000	1.0000	19	0.0000	1.0000	19	0.0000	1.0000
0.0000	1.0000	20	0.0000	1.0000	20	0.0000	1.0000
0.0000	1.0000	21	0.0000	1.0000	21	0.0000	1.0000
0.0000	1.0000	22	0.0000	1.0000	22	0.0000	1.0000
0.0000	1.0000	23	0.0000	1.0000	23	0.0000	1.0000
0.0000	1.0000	24	0.0000	1.0000	24	0.0000	1.0000
0.0000	1.0000	25	0.0000	1.0000	25	0.0000	1.0000
0.0000	1.0000	26	0.0000	1.0000	26	0.0000	1.0000
0.0000	1.0000	27	0.0000	1.0000	27	0.0000	1.0000
0.0000	1.0000	28	0.0000	1.0000	28	0.0000	1.0000
0.0000	1.0000	29	0.0000	1.0000	29	0.0000	1.0000
0.0000	1.0000	30	0.0000	1.0000	30	0.0000	1.0000
0.0000	1.0000	31	0.0000	1.0000	31	0.0000	1.0000
0.0000	1.0000	32	0.0000	1.0000	32	0.0000	1.0000
0.0000	1.0000	33	0.0000	1.0000	33	0.0000	1.0000
0.0000	1.0000	34	0.0000	1.0000	34	0.0000	1.0000
0.0000	1.0000	35	0.0000	1.0000	35	0.0000	1.0000
0.0000	1.0000	36	0.0000	1.0000	36	0.0000	1.0000
0.0000 0.0000	1.0000 1.0000	37 38	0.0000 0.0000	1.0000 1.0000	37 38	0.0000 0.0000	1.0000 1.0000
0.0000	1.0000	39	0.0000	1.0000	30 39	0.0000	1.0000
0.0000	1.0000	40	0.0000	1.0000	40	0.0000	1.0000
0.0000	1.0000	40	0.0000	1.0000	40	0.0000	1.0000
0.0000	1.0000	42	0.0000	1.0000	42	0.0000	1.0000
0.0000	1.0000	43	0.0000	1.0000	43	0.0000	1.0000
0.0000	1.0000	44	0.0000	1.0000	44	0.0000	1.0000
0.0000	1.0000	45	0.0000	1.0000	45	0.0000	1.0000
0.0000	1.0000	46	0.0000	1.0000	46	0.0000	1.0000
0.0000	1.0000	47	0.0000	1.0000	47	0.0000	1.0000
0.0000	1.0000	48	0.0000	1.0000	48	0.0000	1.0000
0.0000	1.0000	49	0.0000	1.0000	49	0.0000	1.0000
0.0000	1.0000	50	0.0000	1.0000	50	0.0000	1.0000
0.0000	1.0000	51	0.0000	1.0000	51	0.0000	1.0000
0.0000	1.0000	52	0.0000	1.0000	52	0.0000	1.0000
0.0000	1.0000	53	0.0000	1.0000	53	0.0000	1.0000
0.0000	1.0000	54	0.0000	1.0000	54	0.0000	1.0000
0.0000	1.0000	55	0.0000	1.0000	55	0.0000	1.0000
0.0000	1.0000	56	0.0000	1.0000	56	0.0000	1.0000
0.0000	1.0000	57	0.0000	1.0000	57	0.0000	1.0000
0.0000	1.0000	58	0.0000	1.0000	58	0.0000	1.0000
0.0000	1.0000	59	0.0000	1.0000	59	0.0000	1.0000
0.0000	1.0000	60	0.0000	1.0000	60	0.0000	1.0000
0.0000	1.0000	61	0.0000	1.0000	61	0.0000	1.0000
0.0000	1.0000	62	0.0000	1.0000	62	0.0000	1.0000
0.0000	1.0000	63	0.0000 0.0000	1.0000	63	0.0000 0.0000	1.0000
0.0000 0.0000	1.0000 1.0000	64 65	0.0000	1.0000 1.0000	64 65	0.0000	1.0000 1.0000
0.0000	1.0000	00	0.0000	1.0000	00	0.0000	1.0000

11.1
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Tradezone/Montague	
WBL	
PM	
Background Conditions	
Avg. Queue Per Lane in V	eh=
Percentile = 95	%

# Tradezone/Montague WBL PM Background Plus Project ConditionsAvg. Queue Per Lane in Veh=Percentile =95%

Existing Condition			Background Con			Background Plus		
Avg. Queue Per L		11.1	Avg. Queue Per		11.9	Avg. Queue Per I		12.2
Percentile =	95%	17	Percentile =	95%	18	Percentile =	95%	18
i		Number of			Number of	· •		Number of
Individual	Cumulative	Queued	Individual	Cumulative	Queued	Individual	Cumulative	Queued
Probability	Probability	Vehicles	Probability	Probability	Vehicles	Probability	Probability	Vehicles
2			5	-		-	-	
0.0000	0.0000	0	0.0000	0.0000	0	0.0000	0.0000	0
0.0002	0.0002	1	0.0001	0.0001	1	0.0001	0.0001	1
0.0009	0.0011	2	0.0005	0.0006	2	0.0004	0.0004	2
0.0034	0.0045	3 4	0.0019	0.0024 0.0081	3 4	0.0015 0.0047	0.0020	3
0.0094	0.0138	4 5	0.0056		4 5		0.0067 0.0182	4 5
0.0209 0.0387	0.0347 0.0734	5 6	0.0134 0.0266	0.0214 0.0480	5 6	0.0115 0.0233	0.0182	5 6
0.0387	0.1350	7	0.0200	0.0480	7	0.0233	0.0414	7
0.0857	0.2206	8	0.0673	0.1605	8	0.0617	0.1436	8
0.1059	0.3266	9	0.0892	0.2497	9	0.0834	0.2270	9
0.1179	0.4445	10	0.1063	0.3559	10	0.1016	0.3286	10
0.1193	0.5638	11	0.1151	0.4711	11	0.1125	0.4412	11
0.1106	0.6744	12	0.1143	0.5854	12	0.1142	0.5554	12
0.0947	0.7691	13	0.1048	0.6902	13	0.1070	0.6624	13
0.0753	0.8444	14	0.0892	0.7794	14	0.0931	0.7555	14
0.0559	0.9003	15	0.0709	0.8503	15	0.0756	0.8311	15
0.0389	0.9392	16	0.0528	0.9031	16	0.0575	0.8886	16
0.0254	0.9646	17	0.0370	0.9401	17	0.0412	0.9299	17
0.0157	0.9803	18	0.0245	0.9646	18	0.0279	0.9578	18
0.0092	0.9896	19	0.0154	0.9800	19	0.0179	0.9757	19
0.0051	0.9947	20	0.0092	0.9892	20	0.0109	0.9866	20
0.0027	0.9974	21	0.0052	0.9944	21	0.0063	0.9929	21
0.0014	0.9988	22	0.0028	0.9972	22	0.0035	0.9964	22
0.0007	0.9995	23	0.0015	0.9987	23	0.0019	0.9982	23
0.0003	0.9998	24	0.0007	0.9994	24	0.0009	0.9992	24
0.0001	0.9999	25	0.0003	0.9997	25	0.0005	0.9996	25
0.0001	1.0000	26	0.0002	0.9999	26	0.0002	0.9998	26
0.0000	1.0000	27	0.0001	1.0000	27	0.0001	0.9999	27
0.0000	1.0000	28	0.0000	1.0000	28	0.0000	1.0000	28
0.0000	1.0000	29	0.0000	1.0000	29	0.0000	1.0000	29
0.0000 0.0000	1.0000 1.0000	30 31	0.0000 0.0000	1.0000 1.0000	30 31	0.0000 0.0000	1.0000 1.0000	30 31
0.0000	1.0000	31	0.0000	1.0000	31	0.0000	1.0000	31
0.0000	1.0000	33	0.0000	1.0000	33	0.0000	1.0000	32
0.0000	1.0000	33 34	0.0000	1.0000	33	0.0000	1.0000	34
0.0000	1.0000	35	0.0000	1.0000	35	0.0000	1.0000	35
0.0000	1.0000	36	0.0000	1.0000	36	0.0000	1.0000	36
0.0000	1.0000	37	0.0000	1.0000	37	0.0000	1.0000	37
0.0000	1.0000	38	0.0000	1.0000	38	0.0000	1.0000	38
0.0000	1.0000	39	0.0000	1.0000	39	0.0000	1.0000	39
0.0000	1.0000	40	0.0000	1.0000	40	0.0000	1.0000	40
0.0000	1.0000	41	0.0000	1.0000	41	0.0000	1.0000	41
0.0000	1.0000	42	0.0000	1.0000	42	0.0000	1.0000	42
0.0000	1.0000	43	0.0000	1.0000	43	0.0000	1.0000	43
0.0000	1.0000	44	0.0000	1.0000	44	0.0000	1.0000	44
0.0000	1.0000	45	0.0000	1.0000	45	0.0000	1.0000	45
0.0000	1.0000	46	0.0000	1.0000	46	0.0000	1.0000	46
0.0000	1.0000	47	0.0000	1.0000	47	0.0000	1.0000	47
0.0000	1.0000	48	0.0000	1.0000	48	0.0000	1.0000	48
0.0000	1.0000	49	0.0000	1.0000	49	0.0000	1.0000	49
0.0000	1.0000	50	0.0000	1.0000	50	0.0000	1.0000	50
0.0000 0.0000	1.0000	51	0.0000	1.0000	51	0.0000	1.0000	51
0.0000	1.0000 1.0000	52 53	0.0000 0.0000	1.0000 1.0000	52 53	0.0000 0.0000	1.0000 1.0000	52 53
0.0000	1.0000	53 54	0.0000	1.0000	53 54	0.0000	1.0000	53 54
0.0000	1.0000	55	0.0000	1.0000	55	0.0000	1.0000	55
0.0000	1.0000	55 56	0.0000	1.0000	55 56	0.0000	1.0000	56
0.0000	1.0000	57	0.0000	1.0000	57	0.0000	1.0000	57
0.0000	1.0000	58	0.0000	1.0000	58	0.0000	1.0000	58
0.0000	1.0000	58 59	0.0000	1.0000	58 59	0.0000	1.0000	59
0.0000	1.0000	60	0.0000	1.0000	60	0.0000	1.0000	60
0.0000	1.0000	61	0.0000	1.0000	61	0.0000	1.0000	61
0.0000	1.0000	62	0.0000	1.0000	62	0.0000	1.0000	62
0.0000	1.0000	63	0.0000	1.0000	63	0.0000	1.0000	63
0.0000	1.0000	64	0.0000	1.0000	64	0.0000	1.0000	64
0.0000	1.0000	65	0.0000	1.0000	65	0.0000	1.0000	65
								14 5/11/2022

Lundy/Trade Zone EBL AM Existing Conditions Avg. Queue Per Lane in Veh= 0.4 Percentile = 95% 

Lundy/Trade Zone	
EBL	
AM	
Background Condi	tions
Avg. Queue Per La	ane in Veh=
Percentile =	95%

0.7

#### Lundy/Trade Zone EBL AM Background Plus Project Conditions Avg. Queue Per Lane in Veh= Percentile = 95%

1.1 

		Number of			Number of			Number of
Individual	Cumulative	Queued	Individual	Cumulative	Queued	Individual	Cumulative	Queued
Probability	Probability	Vehicles	Probability	Probability	Vehicles	Probability	Probability	Vehicles
0.7016	0.7016	0	0.5083	0.5083	0	0.3344	0.3344	0
0.2487	0.9502	1	0.3440	0.8523	1	0.3663	0.7007	1
0.0441	0.9943	2	0.1164	0.9686	2	0.2007	0.9013	2
0.0052 0.0005	0.9995 1.0000	3 4	0.0262 0.0044	0.9949 0.9993	3 4	0.0733 0.0201	0.9746 0.9947	3 4
0.0005	1.0000	4 5	0.00044	0.9993 0.9999	4 5	0.0201	0.9947 0.9991	4 5
0.0000	1.0000	6	0.0001	1.0000	6	0.0008	0.9999	6
0.0000	1.0000	7	0.0000	1.0000	7	0.0001	1.0000	7
0.0000	1.0000	8	0.0000	1.0000	8	0.0000	1.0000	8
0.0000	1.0000	9	0.0000	1.0000	9	0.0000	1.0000	9
0.0000	1.0000	10	0.0000	1.0000	10	0.0000	1.0000	10
0.0000	1.0000	11	0.0000	1.0000	11	0.0000	1.0000	11
0.0000	1.0000	12	0.0000	1.0000	12	0.0000	1.0000	12
0.0000 0.0000	1.0000 1.0000	13 14	0.0000 0.0000	1.0000 1.0000	13 14	0.0000 0.0000	1.0000 1.0000	13 14
0.0000	1.0000	14	0.0000	1.0000	14	0.0000	1.0000	14
0.0000	1.0000	16	0.0000	1.0000	16	0.0000	1.0000	16
0.0000	1.0000	17	0.0000	1.0000	17	0.0000	1.0000	17
0.0000	1.0000	18	0.0000	1.0000	18	0.0000	1.0000	18
0.0000	1.0000	19	0.0000	1.0000	19	0.0000	1.0000	19
0.0000	1.0000	20	0.0000	1.0000	20	0.0000	1.0000	20
0.0000	1.0000	21	0.0000	1.0000	21	0.0000	1.0000	21
0.0000	1.0000	22 23	0.0000	1.0000	22	0.0000 0.0000	1.0000	22 23
0.0000 0.0000	1.0000 1.0000	23 24	0.0000 0.0000	1.0000 1.0000	23 24	0.0000	1.0000 1.0000	23 24
0.0000	1.0000	24 25	0.0000	1.0000	24	0.0000	1.0000	24
0.0000	1.0000	26	0.0000	1.0000	26	0.0000	1.0000	26
0.0000	1.0000	27	0.0000	1.0000	27	0.0000	1.0000	27
0.0000	1.0000	28	0.0000	1.0000	28	0.0000	1.0000	28
0.0000	1.0000	29	0.0000	1.0000	29	0.0000	1.0000	29
0.0000	1.0000	30	0.0000	1.0000	30	0.0000	1.0000	30
0.0000 0.0000	1.0000 1.0000	31 32	0.0000 0.0000	1.0000 1.0000	31 32	0.0000 0.0000	1.0000 1.0000	31 32
0.0000	1.0000	33	0.0000	1.0000	33	0.0000	1.0000	33
0.0000	1.0000	34	0.0000	1.0000	34	0.0000	1.0000	34
0.0000	1.0000	35	0.0000	1.0000	35	0.0000	1.0000	35
0.0000	1.0000	36	0.0000	1.0000	36	0.0000	1.0000	36
0.0000	1.0000	37	0.0000	1.0000	37	0.0000	1.0000	37
0.0000	1.0000	38	0.0000	1.0000	38	0.0000	1.0000	38
0.0000	1.0000	39 40	0.0000	1.0000	39	0.0000	1.0000	39
0.0000 0.0000	1.0000 1.0000	40 41	0.0000 0.0000	1.0000 1.0000	40 41	0.0000 0.0000	1.0000 1.0000	40 41
0.0000	1.0000	41	0.0000	1.0000	41	0.0000	1.0000	41
0.0000	1.0000	43	0.0000	1.0000	43	0.0000	1.0000	43
0.0000	1.0000	44	0.0000	1.0000	44	0.0000	1.0000	44
0.0000	1.0000	45	0.0000	1.0000	45	0.0000	1.0000	45
0.0000	1.0000	46	0.0000	1.0000	46	0.0000	1.0000	46
0.0000	1.0000	47	0.0000	1.0000	47	0.0000	1.0000	47
0.0000	1.0000	48	0.0000	1.0000	48	0.0000	1.0000	48
0.0000 0.0000	1.0000 1.0000	49 50	0.0000 0.0000	1.0000 1.0000	49 50	0.0000 0.0000	1.0000 1.0000	49 50
0.0000	1.0000	51	0.0000	1.0000	51	0.0000	1.0000	51
0.0000	1.0000	52	0.0000	1.0000	52	0.0000	1.0000	52
0.0000	1.0000	53	0.0000	1.0000	53	0.0000	1.0000	53
0.0000	1.0000	54	0.0000	1.0000	54	0.0000	1.0000	54
0.0000	1.0000	55	0.0000	1.0000	55	0.0000	1.0000	55
0.0000	1.0000	56	0.0000	1.0000	56	0.0000	1.0000	56
0.0000	1.0000	57	0.0000	1.0000	57	0.0000	1.0000	57
0.0000 0.0000	1.0000 1.0000	58 59	0.0000 0.0000	1.0000	58 59	0.0000 0.0000	1.0000 1.0000	58 59
0.0000	1.0000	59 60	0.0000	1.0000 1.0000	59 60	0.0000	1.0000	59 60
0.0000	1.0000	61	0.0000	1.0000	61	0.0000	1.0000	61
0.0000	1.0000	62	0.0000	1.0000	62	0.0000	1.0000	62
0.0000	1.0000	63	0.0000	1.0000	63	0.0000	1.0000	63
0.0000	1.0000	64	0.0000	1.0000	64	0.0000	1.0000	64
0.0000	1.0000	65	0.0000	1.0000	65	0.0000	1.0000	65

Lundy/Trade Zone		
EBL		
PM		
Existing Condition:	s	
Avg. Queue Per La	ane in Veh=	0.3
Percentile =	95%	1

Lundy/Trade Zone	9
EBL	
PM	
Background Cond	litions
Avg. Queue Per L	ane in Veh=
Percentile =	95%

0.4 1

0.0000 0.0000

Lundy/Trade Zone	
EBL	
PM	
Background Plus F	Project Conditions
Avg. Queue Per La	ane in Veh=
Percentile =	95%

0.7483         0.7483         0         0.7016         0.7016         0.7016           0.2170         0.9663         1         0.2487         0.9602         1           0.0315         0.9998         3         0.0052         0.9995         3           0.0000         1.0000         4         0.0005         1.0000         4           0.0000         1.0000         5         0.0000         1.0000         6           0.0000         1.0000         7         0.0000         1.0000         6           0.0000         1.0000         8         0.0000         1.0000         7           0.0000         1.0000         10         0.0000         1.0000         10           0.0000         1.0000         11         0.0000         1.0000         11           0.0000         1.0000         13         0.0000         1.0000         14           0.0000         1.0000         15         0.0000         1.0000         14           0.0000         1.0000         16         0.0000         1.0000         16           0.0000         1.0000         10         0.0000         1.0000         12           0.0000	Individual Probability	Cumulative Probability	Number of Queued Vehicles	Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.2170         0.9663         1         0.2487         0.9543         2           0.0030         0.9998         3         0.0052         0.9995         3           0.0002         1.0000         4         0.0005         1.0000         4           0.0000         1.0000         5         0.0000         1.0000         6           0.0000         1.0000         7         0.0000         1.0000         7           0.0000         1.0000         8         0.0000         1.0000         8           0.0000         1.0000         10         0.0000         1.0000         9           0.0000         1.0000         11         0.0000         1.0000         13           0.0000         1.0000         13         0.0000         1.0000         13           0.0000         1.0000         15         0.0000         1.0000         16           0.0000         1.0000         16         0.0000         1.0000         18           0.0000         1.0000         1.0000         18         0.0000         1.0000         22           0.0000         1.0000         24         0.0000         1.0000         24           <		-	0	-	-	0
0.0315         0.9667         2         0.0441         0.9945         3           0.0002         1.0000         4         0.0052         0.9955         3           0.0000         1.0000         5         0.0000         1.0000         5           0.0000         1.0000         6         0.0000         1.0000         6           0.0000         1.0000         7         0.0000         1.0000         7           0.0000         1.0000         8         0.0000         1.0000         8           0.0000         1.0000         10         0.0000         1.0000         10           0.0000         1.0000         12         0.0000         1.0000         12           0.0000         1.0000         13         0.0000         1.0000         13           0.0000         1.0000         15         0.0000         1.0000         14           0.0000         1.0000         17         0.0000         1.0000         17           0.0000         1.0000         17         0.0000         1.0000         23           0.0000         1.0000         23         0.0000         1.0000         23           0.0000						
0.0030         0.9998         3         0.0052         0.9995         3           0.0000         1.0000         5         0.0005         1.0000         4           0.0000         1.0000         6         0.0000         1.0000         6           0.0000         1.0000         7         0.0000         1.0000         7           0.0000         1.0000         8         0.0000         1.0000         8           0.0000         1.0000         10         0.0000         1.0000         9           0.0000         1.0000         11         0.0000         1.0000         12           0.0000         1.0000         13         0.0000         1.0000         13           0.0000         1.0000         16         0.0000         1.0000         16           0.0000         1.0000         16         0.0000         1.0000         17           0.0000         1.0000         18         0.0000         1.0000         18           0.0000         1.0000         1.0000         10.000         21         0.0000         1.0000         22           0.0000         1.0000         23         0.00001         1.0000         23						
0.0002         1.0000         4         0.0000         1.0000         5           0.0000         1.0000         6         0.0000         1.0000         6           0.0000         1.0000         7         0.0000         1.0000         7           0.0000         1.0000         8         0.0000         1.0000         8           0.0000         1.0000         10         0.0000         1.0000         10           0.0000         1.0000         11         0.0000         1.0000         11           0.0000         1.0000         12         0.0000         1.0000         12           0.0000         1.0000         13         0.0000         1.0000         13           0.0000         1.0000         15         0.0000         1.0000         16           0.0000         1.0000         17         0.0000         1.0000         17           0.0000         1.0000         19         0.0000         1.0000         19           0.0000         1.0000         22         0.0000         1.0000         23           0.0000         1.0000         23         0.0000         1.0000         24           0.0000						
0.0000         1.0000         5         0.0000         1.0000         5           0.0000         1.0000         7         0.0000         1.0000         7           0.0000         1.0000         8         0.0000         1.0000         8           0.0000         1.0000         9         0.0000         1.0000         9           0.0000         1.0000         10         0.0000         1.0000         10           0.0000         1.0000         11         0.0000         1.0000         12           0.0000         1.0000         13         0.0000         1.0000         13           0.0000         1.0000         15         0.0000         1.0000         16           0.0000         1.0000         16         0.0000         1.0000         17           0.0000         1.0000         18         0.0000         1.0000         18           0.0000         1.0000         22         0.0000         1.0000         23           0.0000         1.0000         23         0.0000         1.0000         23           0.0000         1.0000         25         0.0000         1.0000         23           0.0000						
0.0000         1.0000         6         0.0000         1.0000         7           0.0000         1.0000         8         0.0000         1.0000         8           0.0000         1.0000         9         0.0000         1.0000         9           0.0000         1.0000         10         0.0000         1.0000         11           0.0000         1.0000         12         0.0000         1.0000         13           0.0000         1.0000         14         0.0000         1.0000         15           0.0000         1.0000         15         0.0000         1.0000         16           0.0000         1.0000         17         0.0000         1.0000         17           0.0000         1.0000         19         0.0000         1.0000         18           0.0000         1.0000         22         0.0000         1.0000         22           0.0000         1.0000         23         0.0000         1.0000         23           0.0000         1.0000         24         0.0000         1.0000         28           0.0000         1.0000         28         0.0000         1.0000         28           0.0000						
0.0000         1.0000         7         0.0000         1.0000         7           0.0000         1.0000         8         0.0000         1.0000         9           0.0000         1.0000         10         0.0000         1.0000         10           0.0000         1.0000         11         0.0000         1.0000         12           0.0000         1.0000         13         0.0000         1.0000         13           0.0000         1.0000         14         0.0000         1.0000         14           0.0000         1.0000         15         0.0000         1.0000         16           0.0000         1.0000         18         0.0000         1.0000         17           0.0000         1.0000         18         0.0000         1.0000         21           0.0000         1.0000         21         0.0000         1.0000         21           0.0000         1.0000         23         0.0000         1.0000         23           0.0000         1.0000         25         0.0000         1.0000         26           0.0000         1.0000         25         0.0000         1.0000         27           0.0000						
0.0000         1.0000         9         0.0000         1.0000         10           0.0000         1.0000         11         0.0000         1.0000         11           0.0000         1.0000         12         0.0000         1.0000         12           0.0000         1.0000         13         0.0000         1.0000         13           0.0000         1.0000         14         0.0000         1.0000         14           0.0000         1.0000         15         0.0000         1.0000         16           0.0000         1.0000         16         0.0000         1.0000         17           0.0000         1.0000         18         0.0000         1.0000         19           0.0000         1.0000         20         0.0000         1.0000         21           0.0000         1.0000         23         0.0000         1.0000         23           0.0000         1.0000         24         0.0000         1.0000         24           0.0000         1.0000         25         0.0000         1.0000         28           0.0000         1.0000         28         0.0000         1.0000         28           0.0000 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
0.0000         1.0000         10         0.0000         1.0000         11           0.0000         1.0000         12         0.0000         1.0000         12           0.0000         1.0000         13         0.0000         1.0000         13           0.0000         1.0000         14         0.0000         1.0000         15           0.0000         1.0000         15         0.0000         1.0000         16           0.0000         1.0000         17         0.0000         1.0000         17           0.0000         1.0000         19         0.0000         1.0000         18           0.0000         1.0000         22         0.0000         1.0000         22           0.0000         1.0000         23         0.0000         1.0000         23           0.0000         1.0000         24         0.0000         1.0000         27           0.0000         1.0000         27         0.0000         1.0000         27           0.0000         1.0000         28         0.0000         1.0000         28           0.0000         1.0000         31         0.0000         1.0000         32           0.0000 </td <td>0.0000</td> <td>1.0000</td> <td>8</td> <td>0.0000</td> <td>1.0000</td> <td>8</td>	0.0000	1.0000	8	0.0000	1.0000	8
0.0000         1.0000         11         0.0000         1.0000         11           0.0000         1.0000         12         0.0000         1.0000         13           0.0000         1.0000         13         0.0000         1.0000         14           0.0000         1.0000         15         0.0000         1.0000         15           0.0000         1.0000         15         0.0000         1.0000         16           0.0000         1.0000         17         0.0000         1.0000         18           0.0000         1.0000         18         0.0000         1.0000         19           0.0000         1.0000         22         0.0000         1.0000         21           0.0000         1.0000         23         0.0000         1.0000         23           0.0000         1.0000         25         0.0000         1.0000         24           0.0000         1.0000         27         0.0000         1.0000         25           0.0000         1.0000         28         0.0000         1.0000         28           0.0000         1.0000         33         0.0000         1.0000         33           0.0000 </td <td>0.0000</td> <td>1.0000</td> <td>9</td> <td>0.0000</td> <td>1.0000</td> <td>9</td>	0.0000	1.0000	9	0.0000	1.0000	9
0.0000         1.0000         12         0.0000         1.0000         12           0.0000         1.0000         13         0.0000         1.0000         14           0.0000         1.0000         15         0.0000         1.0000         16           0.0000         1.0000         16         0.0000         1.0000         16           0.0000         1.0000         18         0.0000         1.0000         17           0.0000         1.0000         19         0.0000         1.0000         20           0.0000         1.0000         21         0.0000         1.0000         21           0.0000         1.0000         23         0.0000         1.0000         24           0.0000         1.0000         24         0.0000         1.0000         26           0.0000         1.0000         27         0.0000         1.0000         27           0.0000         1.0000         28         0.0000         1.0000         28           0.0000         1.0000         29         0.0000         1.0000         31           0.0000         1.0000         33         0.0000         1.0000         32           0.0000 </td <td></td> <td>1.0000</td> <td></td> <td></td> <td></td> <td></td>		1.0000				
0.0000         1.0000         13         0.0000         1.0000         13           0.0000         1.0000         14         0.0000         1.0000         15           0.0000         1.0000         16         0.0000         1.0000         15           0.0000         1.0000         16         0.0000         1.0000         17           0.0000         1.0000         18         0.0000         1.0000         18           0.0000         1.0000         19         0.0000         1.0000         20           0.0000         1.0000         21         0.0000         1.0000         23           0.0000         1.0000         24         0.0000         1.0000         25           0.0000         1.0000         26         0.0000         1.0000         26           0.0000         1.0000         28         0.0000         1.0000         28           0.0000         1.0000         29         0.0000         1.0000         30           0.0000         1.0000         32         0.0000         1.0000         33           0.0000         1.0000         34         0.0000         1.0000         33           0.0000 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
0.0000         1.0000         14         0.0000         1.0000         14           0.0000         1.0000         15         0.0000         1.0000         16           0.0000         1.0000         17         0.0000         1.0000         18           0.0000         1.0000         18         0.0000         1.0000         18           0.0000         1.0000         20         0.0000         1.0000         21           0.0000         1.0000         22         0.0000         1.0000         23           0.0000         1.0000         24         0.0000         1.0000         23           0.0000         1.0000         25         0.0000         1.0000         25           0.0000         1.0000         27         0.0000         1.0000         28           0.0000         1.0000         28         0.0000         1.0000         29           0.0000         1.0000         33         0.0000         1.0000         33           0.0000         1.0000         32         0.0000         1.0000         32           0.0000         1.0000         33         0.0000         1.0000         33           0.0000 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
0.0000         1.0000         15         0.0000         1.0000         15           0.0000         1.0000         16         0.0000         1.0000         17           0.0000         1.0000         18         0.0000         1.0000         18           0.0000         1.0000         19         0.0000         1.0000         20           0.0000         1.0000         21         0.0000         1.0000         21           0.0000         1.0000         23         0.0000         1.0000         23           0.0000         1.0000         24         0.0000         1.0000         25           0.0000         1.0000         26         0.0000         1.0000         27           0.0000         1.0000         28         0.0000         1.0000         28           0.0000         1.0000         29         0.0000         1.0000         30           0.0000         1.0000         31         0.0000         1.0000         33           0.0000         1.0000         33         0.0000         1.0000         33           0.0000         1.0000         34         0.0000         1.0000         35           0.0000 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
0.0000         1.0000         16         0.0000         1.0000         16           0.0000         1.0000         17         0.0000         1.0000         18           0.0000         1.0000         19         0.0000         1.0000         18           0.0000         1.0000         20         0.0000         1.0000         20           0.0000         1.0000         21         0.0000         1.0000         23           0.0000         1.0000         23         0.0000         1.0000         23           0.0000         1.0000         24         0.0000         1.0000         24           0.0000         1.0000         26         0.0000         1.0000         26           0.0000         1.0000         28         0.0000         1.0000         29           0.0000         1.0000         28         0.0000         1.0000         30           0.0000         1.0000         31         0.0000         1.0000         31           0.0000         1.0000         33         0.0000         1.0000         32           0.0000         1.0000         35         0.0000         1.0000         34           0.0000 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
0.0000         1.0000         17         0.0000         1.0000         18           0.0000         1.0000         18         0.0000         1.0000         18           0.0000         1.0000         20         0.0000         1.0000         20           0.0000         1.0000         21         0.0000         1.0000         21           0.0000         1.0000         22         0.0000         1.0000         22           0.0000         1.0000         23         0.0000         1.0000         24           0.0000         1.0000         25         0.0000         1.0000         25           0.0000         1.0000         26         0.0000         1.0000         27           0.0000         1.0000         27         0.0000         1.0000         28           0.0000         1.0000         30         0.0000         1.0000         30           0.0000         1.0000         31         0.0000         1.0000         32           0.0000         1.0000         33         0.0000         1.0000         33           0.0000         1.0000         35         0.0000         1.0000         36           0.0000 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
0.0000         1.0000         18         0.0000         1.0000         18           0.0000         1.0000         19         0.0000         1.0000         20           0.0000         1.0000         21         0.0000         1.0000         20           0.0000         1.0000         21         0.0000         1.0000         22           0.0000         1.0000         23         0.0000         1.0000         23           0.0000         1.0000         24         0.0000         1.0000         25           0.0000         1.0000         26         0.0000         1.0000         26           0.0000         1.0000         28         0.0000         1.0000         28           0.0000         1.0000         30         0.0000         1.0000         30           0.0000         1.0000         31         0.0000         1.0000         31           0.0000         1.0000         33         0.0000         1.0000         33           0.0000         1.0000         33         0.0000         1.0000         34           0.0000         1.0000         36         0.0000         1.0000         37           0.0000 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
0.0000         1.0000         19         0.0000         1.0000         20           0.0000         1.0000         20         0.0000         1.0000         21           0.0000         1.0000         22         0.0000         1.0000         22           0.0000         1.0000         23         0.0000         1.0000         23           0.0000         1.0000         24         0.0000         1.0000         24           0.0000         1.0000         26         0.0000         1.0000         27           0.0000         1.0000         27         0.0000         1.0000         28           0.0000         1.0000         29         0.0000         1.0000         29           0.0000         1.0000         31         0.0000         1.0000         32           0.0000         1.0000         32         0.0000         1.0000         33           0.0000         1.0000         34         0.0000         1.0000         35           0.0000         1.0000         38         0.0000         1.0000         38           0.0000         1.0000         38         0.0000         1.0000         44           0.0000 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
0.0000         1.0000         20         0.0000         1.0000         21           0.0000         1.0000         21         0.0000         1.0000         22           0.0000         1.0000         23         0.0000         1.0000         23           0.0000         1.0000         24         0.0000         1.0000         25           0.0000         1.0000         26         0.0000         1.0000         26           0.0000         1.0000         27         0.0000         1.0000         28           0.0000         1.0000         28         0.0000         1.0000         29           0.0000         1.0000         30         0.0000         1.0000         31           0.0000         1.0000         31         0.0000         1.0000         32           0.0000         1.0000         33         0.0000         1.0000         34           0.0000         1.0000         36         0.0000         1.0000         37           0.0000         1.0000         37         0.0000         1.0000         37           0.0000         1.0000         39         0.0000         1.0000         40           0.0000 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
0.0000         1.0000         21         0.0000         1.0000         21           0.0000         1.0000         22         0.0000         1.0000         23           0.0000         1.0000         23         0.0000         1.0000         24           0.0000         1.0000         25         0.0000         1.0000         26           0.0000         1.0000         26         0.0000         1.0000         26           0.0000         1.0000         28         0.0000         1.0000         28           0.0000         1.0000         29         0.0000         1.0000         29           0.0000         1.0000         31         0.0000         1.0000         31           0.0000         1.0000         32         0.0000         1.0000         32           0.0000         1.0000         34         0.0000         1.0000         34           0.0000         1.0000         37         0.0000         1.0000         37           0.0000         1.0000         38         0.0000         1.0000         38           0.0000         1.0000         38         0.0000         1.0000         40           0.0000 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
0.0000         1.0000         22         0.0000         1.0000         23           0.0000         1.0000         23         0.0000         1.0000         23           0.0000         1.0000         24         0.0000         1.0000         24           0.0000         1.0000         25         0.0000         1.0000         25           0.0000         1.0000         26         0.0000         1.0000         27           0.0000         1.0000         28         0.0000         1.0000         28           0.0000         1.0000         29         0.0000         1.0000         30           0.0000         1.0000         31         0.0000         1.0000         31           0.0000         1.0000         33         0.0000         1.0000         33           0.0000         1.0000         34         0.0000         1.0000         36           0.0000         1.0000         37         0.0000         1.0000         36           0.0000         1.0000         38         0.0000         1.0000         39           0.0000         1.0000         40         0.0000         1.0000         41           0.0000 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
0.0000         1.0000         23         0.0000         1.0000         23           0.0000         1.0000         24         0.0000         1.0000         24           0.0000         1.0000         25         0.0000         1.0000         26           0.0000         1.0000         26         0.0000         1.0000         26           0.0000         1.0000         28         0.0000         1.0000         28           0.0000         1.0000         29         0.0000         1.0000         29           0.0000         1.0000         30         0.0000         1.0000         31           0.0000         1.0000         32         0.0000         1.0000         32           0.0000         1.0000         34         0.0000         1.0000         34           0.0000         1.0000         35         0.0000         1.0000         35           0.0000         1.0000         37         0.0000         1.0000         38           0.0000         1.0000         38         0.0000         1.0000         39           0.0000         1.0000         40         0.0000         1.0000         41           0.0000 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
0.0000         1.0000         24         0.0000         1.0000         24           0.0000         1.0000         25         0.0000         1.0000         25           0.0000         1.0000         26         0.0000         1.0000         26           0.0000         1.0000         27         0.0000         1.0000         28           0.0000         1.0000         28         0.0000         1.0000         29           0.0000         1.0000         30         0.0000         1.0000         30           0.0000         1.0000         31         0.0000         1.0000         32           0.0000         1.0000         33         0.0000         1.0000         33           0.0000         1.0000         35         0.0000         1.0000         35           0.0000         1.0000         36         0.0000         1.0000         36           0.0000         1.0000         38         0.0000         1.0000         38           0.0000         1.0000         38         0.0000         1.0000         41           0.0000         1.0000         44         0.0000         1.0000         42           0.0000 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
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0.0000         1.0000         28         0.0000         1.0000         28           0.0000         1.0000         29         0.0000         1.0000         30           0.0000         1.0000         31         0.0000         1.0000         31           0.0000         1.0000         32         0.0000         1.0000         32           0.0000         1.0000         33         0.0000         1.0000         32           0.0000         1.0000         33         0.0000         1.0000         34           0.0000         1.0000         35         0.0000         1.0000         35           0.0000         1.0000         36         0.0000         1.0000         37           0.0000         1.0000         37         0.0000         1.0000         38           0.0000         1.0000         39         0.0000         1.0000         39           0.0000         1.0000         41         0.0000         1.0000         42           0.0000         1.0000         43         0.0000         1.0000         43           0.0000         1.0000         44         0.0000         1.0000         45           0.0000 </td <td></td> <td></td> <td></td> <td>0.0000</td> <td></td> <td></td>				0.0000		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.0000	1.0000	27	0.0000	1.0000	27
0.0000         1.0000         30         0.0000         1.0000         31           0.0000         1.0000         31         0.0000         1.0000         32           0.0000         1.0000         32         0.0000         1.0000         32           0.0000         1.0000         33         0.0000         1.0000         33           0.0000         1.0000         34         0.0000         1.0000         34           0.0000         1.0000         35         0.0000         1.0000         36           0.0000         1.0000         37         0.0000         1.0000         37           0.0000         1.0000         38         0.0000         1.0000         38           0.0000         1.0000         40         0.0000         1.0000         40           0.0000         1.0000         41         0.0000         1.0000         41           0.0000         1.0000         42         0.0000         1.0000         43           0.0000         1.0000         44         0.0000         1.0000         47           0.0000         1.0000         45         0.0000         1.0000         47           0.0000 </td <td>0.0000</td> <td>1.0000</td> <td>28</td> <td>0.0000</td> <td></td> <td></td>	0.0000	1.0000	28	0.0000		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.0000	1.0000		0.0000	1.0000	
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$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.0000	1.0000	43	0.0000	1.0000	43
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			44	0.0000		44
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.0000	1.0000	45	0.0000	1.0000	45
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0.0000         1.0000         54         0.0000         1.0000         54           0.0000         1.0000         55         0.0000         1.0000         55           0.0000         1.0000         56         0.0000         1.0000         56           0.0000         1.0000         57         0.0000         1.0000         57           0.0000         1.0000         58         0.0000         1.0000         58           0.0000         1.0000         59         0.0000         1.0000         59           0.0000         1.0000         60         0.0000         1.0000         60           0.0000         1.0000         61         0.0000         1.0000         61           0.0000         1.0000         62         0.0000         1.0000         62           0.0000         1.0000         63         0.0000         1.0000         63           0.0000         1.0000         64         0.0000         1.0000         64						
0.0000         1.0000         55         0.0000         1.0000         55           0.0000         1.0000         56         0.0000         1.0000         56           0.0000         1.0000         57         0.0000         1.0000         57           0.0000         1.0000         58         0.0000         1.0000         58           0.0000         1.0000         59         0.0000         1.0000         59           0.0000         1.0000         60         0.0000         1.0000         60           0.0000         1.0000         61         0.0000         1.0000         61           0.0000         1.0000         62         0.0000         1.0000         62           0.0000         1.0000         63         0.0000         1.0000         63           0.0000         1.0000         64         0.0000         1.0000         64						
0.0000         1.0000         56         0.0000         1.0000         56           0.0000         1.0000         57         0.0000         1.0000         57           0.0000         1.0000         58         0.0000         1.0000         58           0.0000         1.0000         59         0.0000         1.0000         59           0.0000         1.0000         60         0.0000         1.0000         60           0.0000         1.0000         61         0.0000         1.0000         61           0.0000         1.0000         62         0.0000         1.0000         62           0.0000         1.0000         63         0.0000         1.0000         63           0.0000         1.0000         64         0.0000         1.0000         64						
0.0000         1.0000         57         0.0000         1.0000         57           0.0000         1.0000         58         0.0000         1.0000         58           0.0000         1.0000         59         0.0000         1.0000         59           0.0000         1.0000         60         0.0000         1.0000         60           0.0000         1.0000         61         0.0000         1.0000         61           0.0000         1.0000         62         0.0000         1.0000         62           0.0000         1.0000         63         0.0000         1.0000         63           0.0000         1.0000         64         0.0000         1.0000         64						
0.0000         1.0000         58         0.0000         1.0000         58           0.0000         1.0000         59         0.0000         1.0000         59           0.0000         1.0000         60         0.0000         1.0000         60           0.0000         1.0000         61         0.0000         1.0000         61           0.0000         1.0000         62         0.0000         1.0000         62           0.0000         1.0000         63         0.0000         1.0000         63           0.0000         1.0000         64         0.0000         1.0000         64						
0.0000         1.0000         59         0.0000         1.0000         59           0.0000         1.0000         60         0.0000         1.0000         60           0.0000         1.0000         61         0.0000         1.0000         61           0.0000         1.0000         62         0.0000         1.0000         62           0.0000         1.0000         63         0.0000         1.0000         63           0.0000         1.0000         64         0.0000         1.0000         64						
0.0000         1.0000         60         0.0000         1.0000         60           0.0000         1.0000         61         0.0000         1.0000         61           0.0000         1.0000         62         0.0000         1.0000         62           0.0000         1.0000         63         0.0000         1.0000         63           0.0000         1.0000         64         0.0000         1.0000         64						
0.0000         1.0000         61         0.0000         1.0000         61           0.0000         1.0000         62         0.0000         1.0000         62           0.0000         1.0000         63         0.0000         1.0000         63           0.0000         1.0000         64         0.0000         1.0000         64						
0.0000         1.0000         62         0.0000         1.0000         62           0.0000         1.0000         63         0.0000         1.0000         63           0.0000         1.0000         64         0.0000         1.0000         64						
0.0000 1.0000 64 0.0000 1.0000 64	0.0000	1.0000	62	0.0000	1.0000	62
			63			63
0.0000 1.0000 65 0.0000 1.0000 65						
	0.0000	1.0000	65	0.0000	1.0000	65

Background Plus		
Avg. Queue Per L Percentile =	ane in Veh= 95%	1.1 3
	9070	5
		Number of
Individual	Cumulative	Queued
Probability	Probability	Vehicles
0.3238	0.3238	0
0.3651 0.2059	0.6889 0.8948	1 2
0.2039	0.8948	3
0.0218	0.9940	4
0.0049	0.9989	5
0.0009	0.9998	6
0.0001 0.0000	1.0000 1.0000	7 8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000 0.0000	1.0000 1.0000	13 14
0.0000	1.0000	14
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000 0.0000	1.0000 1.0000	19 20
0.0000	1.0000	20
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000 0.0000	1.0000 1.0000	25 26
0.0000	1.0000	20 27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000 0.0000	1.0000 1.0000	31 32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000 1.0000	36 37
0.0000 0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000 0.0000	1.0000 1.0000	42 43
0.0000	1.0000	40
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47 48
0.0000 0.0000	1.0000 1.0000	48 49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000 0.0000	1.0000 1.0000	53 54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000 0.0000	1.0000 1.0000	59 60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64

1.0000 1.0000

64 65

Lundy/Trade Zone		
WBL		
AM		
Existing Conditions	6	
Avg. Queue Per La	ane in Veh=	24.5
Percentile =	95%	33

Lundy/Trade Zone	
WBL	
AM	
Background Conditions	
Avg. Queue Per Lane in Veh=	
Percentile = 95%	

24.8

### Lundy/Trade Zone WBL AM Background Plus Project Conditions Avg. Queue Per Lane in Veh= Percentile = 95%

25.5

Individual         Cumulative Probability         Queued Vehicles         Individual Probability         Cumulative Vehicles         Individual Probability         Cumulative Vehicles           0.0000         0.0000         0         0.0000         0         0.0000         0         0.0000         0         0.0000         0.0000         0         0.0000         0.0000         0.0000         1         0.0000         0.0000         1         0.0000         0.0000         1         0.0000         0.0000         3         0.0000         0.0000         5         0.0000         0.0000         6         0.0000         0.0000         6         0.0000         0.0000         7         0.0000         0.0000         7         0.0000         0.0000         7         0.0000         0.0000         7         0.0000         0.0000         7         0.0000         0.0001 <th></th> <th></th> <th>Number of</th> <th>Г</th> <th></th> <th></th> <th>Number of</th> <th></th> <th></th> <th>Number of</th>			Number of	Г			Number of			Number of
0.0000         0.0000         1         0.0000         1         0.0000         1           0.0000         0.0000         3         0.0000         3         0.0000         3           0.0000         0.0000         4         0.0000         1         0.0000         4           0.0000         0.0000         4         0.0000         1         0.0000         4           0.0000         0.0000         5         0.0000         6         0.0000         0.0000           0.0001         0.0001         7         0.0001         0.0001         0.0001         0.0001         0.0001         0.0001         0.0001         0.0001         0.0001         0.0002         0.0003         9         0.0004         10         0.0002         0.0003         9         0.0004         11         0.0003         0.0004         10           0.0022         0.0042         12         0.0019         0.111         13         0.0024         12           0.0042         0.0043         9         0.0044         13         0.0445         14         14         14         0.0044         14         14         0.0044         14         14         0.0044         111										
0.0000         0.0000         2         0.0000         2         0.0000         2           0.0000         0.0000         4         0.0000         4         0.0000         3           0.0000         0.0000         4         0.0000         4         0.0000         4           0.0000         0.0000         4         0.0000         1         0.0000         5           0.0000         0.0000         7         0.0000         0.0000         7         0.0000         0.0000         7           0.0002         0.0003         9         0.0004         0.0007         10         0.0006         0.0001         10           0.0002         0.0003         9         0.0004         10         0.0006         0.0011         11           0.0002         0.0003         10         0.0004         10         0.0006         10.0111         11           0.0014         0.0024         0.0119         0.0025         12         0.0144         0.0241         12         0.0144         12         0.0111         11           0.0124         0.0242         15         0.0144         12         0.0173         11         11         11         0.0241 </td <td>0.0000</td> <td>0.0000</td> <td>0</td> <td></td> <td>0.0000</td> <td>0.0000</td> <td>0</td> <td>0.0000</td> <td>0.0000</td> <td>0</td>	0.0000	0.0000	0		0.0000	0.0000	0	0.0000	0.0000	0
0.0000         0.0000         3         0.0000         3         0.0000         3           0.0000         0.0000         5         0.0000         0.0000         5           0.0000         0.0000         5         0.0000         0.0000         6           0.0000         0.0000         7         0.0000         0.0000         7           0.0001         7         0.0001         7         0.0001         7           0.0005         0.0003         9         0.0001         7         0.0001         0.0001         7           0.0005         0.0008         10         0.0002         0.0001         0.0001         0.0002         9           0.0005         0.0008         10         0.0004         0.0007         10         0.0006         0.0011         11           0.0022         0.0042         12         0.0171         13         0.0027         0.0021         13           0.0124         0.0224         15         0.0141         0.0424         0.0122         16           0.0235         0.0244         0.0244         12         0.0141         0.0444         0.0444         0.0444         0.0444         0.0444         0.01964 </td <td></td>										
0.0000         0.0000         4         0.0000         0.0000         4           0.0000         0.0000         5         0.0000         0.0000         5           0.0000         0.0000         6         0.0000         0.0000         5           0.0000         0.0000         7         0.0000         0.0000         7           0.0001         0.0001         8         0.0001         8         0.0001         8           0.0001         0.0011         8         0.0001         8         0.0001         8           0.0011         0.0019         11         0.0024         0.0014         0.0011         11           0.0022         0.0044         13         0.0036         0.0071         13         0.0024         0.0041         0.0021           0.0074         0.0044         16         0.0136         16         0.0131         0.0313         16           0.0121         0.0279         15         0.0167         0.0242         15         0.0068         0.0131         0.0313         13           0.0162         0.0142         0.0242         15         0.0042         0.0131         0.0131         0.0131         0.0313         0.0										
0.0000         0.0000         5         0.0000         0.0000         5           0.0000         0.0000         7         0.0000         0.0000         7           0.0000         0.0000         7         0.0000         0.0000         7           0.0001         0.0000         7         0.0000         0.0001         8           0.0001         0.0001         0.0003         9         0.0001         0.0002         0.0002         9           0.0002         0.0002         11         0.0004         0.0007         10         0.0003         0.0001         11           0.012         0.002         11         0.014         0.0017         13         0.0017         0.0017         13         0.0017         0.0016         14           0.012         0.0138         14         0.0044         0.0135         14         0.0048         0.0137         0.0116         0.0468         16         0.0137         0.0116         0.0468         16         0.0137         0.1157         18           0.0463         0.1416         19         0.0433         0.4146         19         0.0473         0.2122         21           0.0463         0.1417 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>										
0.0000         0.0000         6         0.0000         6         0.0000         6           0.0001         0.0001         8         0.0001         8         0.0001         0.0001         8           0.0002         0.0003         9         0.0002         0.0001         0.0002         0.0001         10         0.0002         0.0001         10         0.0002         0.0001         11         10         0.0002         0.0001         13         13         13         14         0.0012         14         0.0012         14         0.0122         14         0.0122         14         0.0122         14         0.0122         15         0.0122         15         0.0122         15         0.0122         16         0.0122         16         0.0122         16         0.0122         16         0.0122         17         0.0242         16         0.0131         10.311         10.311										
0.0000         0.0000         7         0.0000         7         0.0000         0.0001         7           0.0001         0.0001         8         0.0001         0.0001         8         0.0002         0.0003         9         0.0001         8           0.0002         0.0003         9         0.0003         0.0002         9         0.0001         8         0.0001         0.0003         0.0001         9         0.0001         0.0003         0.0001         0.0003         0.0001         11         0.0003         0.0001         11         0.0003         0.0011         11         0.0004         0.0114         0.0014         11         0.0004         11         0.0004         0.0114         0.0014         11         0.0004         0.0114         0.0014         0.0014         0.0014         0.0014         0.0014         0.0014         0.0014         0.0018         0.0018         0.0016         11         0.0016         0.0114         0.0116         0.0116         0.0116         0.0116         0.0116         0.0116         0.0116         0.0116         0.0116         0.0116         0.0116         0.0116         0.0116         0.0116         0.0116         0.0116         0.0116         0.0116         0.01										
0.0001         0.0001         8         0.0002         0.0001         8           0.0005         0.0006         10         0.0004         0.0007         10         0.0002         9           0.0016         0.0006         10         0.0004         0.0007         10         0.0006         0.0004         11           0.0011         0.0022         0.0042         12         0.0019         0.0055         12         0.0014         0.0024         12           0.0014         0.0189         14         0.0047         0.0186         14         0.0024         12           0.0174         0.1189         14         0.0047         0.1186         14         0.0181         0.0131         16           0.0257         0.0731         17         0.01241         0.0464         17         0.0157         0.0736         18           0.0468         0.1661         19         0.04334         0.1416         19         0.0377         0.2202         21           0.0733         0.2541         0.0637         0.2201         0.0668         0.2804         22           0.0741         0.3384         23         0.0775         0.4484         0.0775         0.4848 <td></td>										
0.0005         0.0006         10         0.0004         0.0007         10         0.0006         0.0011           0.0011         0.00042         12         0.0019         0.0035         12         0.0014         0.0024         12           0.0074         0.0158         14         0.0064         0.0136         144         0.0062         0.0162         15           0.0121         0.0274         0.0158         14         0.0064         0.0136         144         0.0062         0.0162         15           0.0121         0.0271         0.0118         15         0.0263         0.0264         0.0163         0.0264         0.0112         153           0.0263         0.0731         17         0.1187         193         0.0371         0.1187         193           0.0663         0.1964         18         0.0333         0.0682         18         0.1277         0.0786         122         0.0473         0.2242         21         0.0573         0.2242         21         0.0573         0.2242         21         0.0573         0.2242         21         0.0575         0.554         23         0.0573         0.2564         23         0.0574         25         24	0.0001	0.0001	8				8	0.0000	0.0001	8
0.0011         0.0019         11         0.0009         0.0016         11         0.0024         12           0.0042         0.0044         13         0.0036         0.0071         13         0.0024         12           0.0042         0.0044         13         0.0036         0.0071         13         0.0024         12           0.0111         0.0279         15         0.0107         0.0242         15         0.0018         0.0131         0.0333         16           0.0267         0.0731         17         0.0241         0.0489         17         0.0182         0.0776         18           0.0468         0.1941         19         0.0433         0.1461         19         0.0377         0.1766         18           0.0743         0.3345         22         0.0716         0.3309         22         0.0639         0.2844         22         10         1662         23         0.0745         0.4852         24         0.0733         0.3588         23           0.0648         0.7454         0.4861         24         0.0731         0.674         27         0.6543         26         0.0735         0.4376         2.4567         2.5         0.0732										
0.0022         0.0042         12         0.0019         0.0025         12         0.0024         0.0024         12           0.0074         0.0158         14         0.0064         0.0136         14         0.0022         0.0011         13           0.0174         0.0158         14         0.0064         0.0136         14         0.0082         0.0162         15           0.0185         0.4044         16         0.0165         0.0408         16         0.0131         0.0333         16           0.0267         0.0731         118         0.0333         0.0682         118         0.0371         0.1187         19           0.0668         0.1861         19         0.0433         0.0482         0.0173         0.2242         21           0.0733         0.2134         20         0.0639         0.1865         20         0.0473         0.2242         21           0.0743         0.3345         22         0.0718         0.339         23         0.0633         0.2864         22         0.0755         0.543         25           0.0746         0.4356         27         0.0755         0.543         26         0.0775         0.544         26										
0.0042         0.0084         13         0.0036         0.0071         13         0.0027         0.0051         13           0.0174         0.0279         15         0.0107         0.0242         15         0.0042         0.0131         0.0313         16           0.0267         0.0731         17         0.0241         0.0649         17         0.0186         0.0381         16           0.0268         0.1196         0.0371         0.177         0.0241         0.0649         17         0.0786         18           0.0468         0.1561         19         0.0433         0.1416         19         0.0472         0.1629         20           0.0668         0.2802         2.1         0.0637         0.22591         21         0.0673         0.2202         21           0.0743         0.3345         2.2         0.0775         0.4084         23         0.0773         0.3598         23           0.0741         0.5995         2.5         0.0785         0.0785         0.0785         0.0785         0.0785         0.0785         0.0785         0.0775         0.04042         0.0775         0.04674         27           0.0745         0.68679         2.5										
0.074         0.0158         14         0.0064         0.0136         14         0.0082         0.0185           0.0185         0.0464         16         0.01165         0.0408         16         0.0131         0.0333           0.0267         0.0731         17         0.0233         0.0982         18         0.0277         0.0768         18           0.0468         0.1561         19         0.0433         0.0482         18         0.0371         0.1157         19           0.0668         0.2802         21         0.0639         0.1955         20         0.0472         0.1629         20           0.0743         0.3545         22         0.0778         0.3309         22         0.0663         0.2804         22           0.0745         0.4885         24         0.0778         0.4375         24           0.0746         0.6869         26         0.0758         0.6438         26         0.0775         0.5843         26           0.0674         0.6860         27         0.0667         0.7752         28         0.6665         0.7338         28           0.0407         0.8853         30         0.0437         0.8717         30										
0.0121         0.0279         15         0.0107         0.0242         15         0.0082         0.0182         15           0.0287         0.0731         17         0.0241         0.0644         17         0.0196         0.0333         16           0.0488         0.1661         19         0.0434         0.1416         19         0.0472         0.0768         18           0.0673         0.2202         21         0.0637         0.2291         0.0673         0.2202         21           0.0743         0.3545         22         0.0775         0.4044         23         0.0773         0.2864         22           0.0771         0.4336         23         0.0775         0.4044         23         0.0773         0.3598         24           0.0774         0.6335         25         0.0776         0.4044         26         0.0775         0.4044         26         0.0775         0.4044         27         0.0667         0.7356         27         0.0667         0.7356         27         0.0677         0.741         0.6474         27           0.0676         0.7366         27         0.0627         0.7135         27         0.0733         0.7922         29<										
0.0267         0.0731         17         0.0241         0.0649         17         0.0196         0.0508         17           0.0368         0.1561         19         0.0434         0.1416         19         0.0371         0.1757         19           0.0673         0.22802         21         0.0637         0.2591         21         0.0673         0.2202         21           0.0771         0.3365         23         0.0775         0.4084         23         0.0733         0.3596         23           0.0771         0.4336         23         0.0775         0.4084         24         0.0776         0.4336         24           0.0767         0.5635         25         0.0795         0.5679         25         0.0773         0.5674         27           0.0676         0.7356         27         0.0697         0.7135         27         0.0683         0.7922         29           0.0499         0.8446         29         0.0528         0.8280         29         0.0483         0.775         2.49           0.0497         0.8433         0.0497         0.843         31         0.246         0.823         31           0.0467         0.7358		0.0279	15			0.0242	15	0.0082	0.0182	15
0.0383         0.1094         18         0.0383         0.0982         18         0.0277         0.0786         18           0.0573         0.2134         20         0.0539         0.1955         20         0.0472         0.1829         20           0.0568         0.2602         21         0.0653         0.2581         21         0.0472         0.1829         20           0.0743         0.3545         22         0.0718         0.3309         22         0.0663         0.2864         22           0.0745         0.6680         26         0.0675         0.5677         25         0.0778         0.4375         24           0.0745         0.6680         26         0.0788         0.6438         26         0.0775         0.5843         25           0.4745         0.6680         26         0.0667         0.7352         28         0.0665         0.7338         28           0.4467         0.2853         30         0.4437         0.8717         30         0.4465         0.8417         30           0.1232         0.1315         31         0.0320         0.9477         32         0.0323         0.111         0.9465         0.8417         32										
0.0468         0.1561         19         0.0434         0.1416         19         0.0371         0.1157         19           0.0668         0.2802         21         0.0637         0.2581         21         0.0637         0.2202         21           0.0731         0.3354         23         0.0775         0.4084         23         0.0733         0.3598         23           0.0808         0.5144         24         0.0755         0.4084         23         0.0775         0.4375         24           0.0745         0.6660         26         0.0775         0.5679         25         0.0775         0.5943         26           0.0661         0.7386         24         0.0665         0.7338         28           0.0661         0.7386         28         0.0677         0.7733         288           0.0490         0.8463         30         0.0437         0.8717         30         0.0485         0.417         30           0.0322         0.9175         31         0.0323         0.9147         32         0.221         0.9338         32         0.0233         0.9147         32           0.0447         0.8421         32         0.0224										
0.0573         0.2134         20         0.0539         0.1955         20         0.0472         0.1629         20           0.0743         0.3945         22         0.0718         0.3309         22         0.0663         0.2284         22           0.0743         0.3945         22         0.0718         0.3099         22         0.0663         0.2284         23           0.0698         0.5144         24         0.0801         0.4885         24         0.0773         0.4375         24           0.0745         0.6880         26         0.0756         0.6579         25         0.0775         0.6674         27           0.0591         0.7345         27         0.0687         0.7358         27         0.0673         0.2483         27           0.0407         0.8453         30         0.0427         0.871         31         0.0223         0.9147         32           0.0407         0.8453         30         0.0427         0.871         31         0.0426         0.8423         31           0.2466         0.4421         32         0.0223         0.9147         32         0.9147         32           0.183         0.4964										
0.0668         0.2802         21         0.0673         0.2261         21           0.0741         0.336         23         0.0776         0.4094         23         0.0733         0.35984         22           0.0791         0.4336         23         0.0775         0.4094         23         0.0733         0.35984         23           0.0791         0.5935         25         0.0755         0.5679         25         0.0752         0.5167         258           0.0767         0.5935         27         0.6697         0.7155         27         0.6751         0.5674         27         0.6751         0.5673         28           0.0576         0.7347         28         0.0672         0.2280         29         0.0563         0.7382         28           0.0499         0.8445         20         0.6226         0.2280         29         0.0563         0.7922         29           0.0407         0.8643         30         0.0424         0.8717         30         0.0446         0.8423         31           0.0222         0.9736         34         0.0173         0.9496         0.933         0.9497         32           0.0132         0.9736										
0.0743         0.3645         22         0.0718         0.3309         22         0.0663         0.2864         22           0.0688         0.5144         24         0.0801         0.4865         24         0.0773         0.3598         23           0.0688         0.5144         24         0.0861         0.4865         24         0.0775         0.49475         24           0.0751         0.5680         26         0.0758         0.6438         26         0.0775         0.5943         26           0.0667         0.7366         27         0.06617         0.7752         28         0.0665         0.738         28           0.0499         0.8446         29         0.0528         0.8280         29         0.0563         0.7922         29           0.0497         0.8717         30         0.0495         0.8417         30           0.0224         0.9417         32         0.0271         0.9338         32         0.0323         0.9147         32           0.0133         0.9604         33         0.0224         0.9542         33         0.0249         0.9396         33           0.0022         0.9828         35         0.0105										
0.0791         0.4336         23         0.0775         0.4084         23         0.0733         0.3588         23           0.0781         0.5335         25         0.0755         0.5679         25         0.0772         0.5167         25           0.0751         0.5680         26         0.0756         0.5679         25         0.0773         0.6674         27           0.0561         0.7947         28         0.0617         0.7752         28         0.0663         0.733         28           0.0499         0.8446         29         0.0528         0.8280         29         0.0583         0.7328         229           0.0407         0.8853         30         0.0437         0.8717         30         0.0495         0.8417         30           0.0226         0.9230         0.9736         34         0.0149         0.9338         32         0.0233         0.9147         32           0.0132         0.9736         34         0.0149         0.9691         34         0.0165         0.9796         35         0.0168         0.9719         35           0.0063         0.9991         36         0.0073         0.9869         36         0.0096										
0.0791         0.5935         25         0.0795         0.6679         25         0.0792         0.5167         25           0.0676         0.7356         27         0.0697         0.7135         27         0.0775         0.5843         26           0.0576         0.7364         28         0.0617         0.7752         28         0.0685         0.7338         28           0.0490         0.8446         29         0.0528         0.2260         29         0.0383         0.7922         29           0.0407         0.8853         30         0.0437         0.8717         30         0.0496         0.8417         30           0.02246         0.9421         32         0.0271         0.9338         32         0.0323         0.9147         32           0.0132         0.9736         34         0.0149         0.9691         34         0.0187         0.9533         34           0.0063         0.9891         36         0.0073         0.9869         36         0.0044         0.9925         38           0.0017         0.9876         38         0.0024         0.9944         39         0.0024         0.9955         38           0.0017		0.4336			0.0775			0.0733		
0.0745         0.6680         26         0.0758         0.6438         26         0.0775         0.5913         26           0.0591         0.7947         28         0.0697         0.7135         27         0.0751         0.6674         27           0.0499         0.8446         29         0.0528         0.8280         29         0.0495         0.8841         30           0.0322         0.9175         31         0.0350         0.9067         31         0.0496         0.8823         31           0.0224         0.9424         32         0.0271         0.9338         32         0.0323         0.9147         32           0.0183         0.9604         33         0.0204         0.9542         33         0.0126         0.9719         35           0.0031         0.9818         36         0.0173         0.9691         36         0.0136         0.9719         35           0.0041         0.9932         37         0.0049         0.9918         37         0.0066         0.9815         36           0.0017         0.9956         38         0.0022         0.9954         39         0.022         0.9954         39           0.0011										
0.0676         0.7356         27         0.0697         0.7135         27         0.0731         0.6674         27           0.0499         0.8446         29         0.0617         0.7752         28         0.0685         0.7338         28           0.0407         0.8833         30         0.0437         0.8717         30         0.0495         0.8417         30           0.02246         0.9421         32         0.0271         0.9338         32         0.0223         0.9147         32           0.0132         0.9736         34         0.0149         0.9542         33         0.0249         0.9893         34           0.0063         0.8891         36         0.0073         0.9869         36         0.0086         0.9915         36           0.0017         0.9956         38         0.0022         0.9925         38         0.0029         0.9925         38           0.0011         0.9996         42         0.0013         0.9991         43         0.0011         0.9984         41           0.0002         0.9995         43         0.0021         0.9991         43         0.0004         0.9995         43           0.0001										
0.0591         0.7947         28         0.0617         0.7752         28         0.0665         0.7338         28           0.0407         0.8853         30         0.0528         0.8280         29         0.0693         0.7992         29           0.0407         0.8853         30         0.0350         0.9067         31         0.0495         0.8417         30           0.0222         0.9175         31         0.0350         0.9067         31         0.0426         0.8423         31           0.0182         0.9604         0.3421         32         0.0271         0.9338         32         0.0136         0.9149         33         0.224         33         0.0249         0.9396         33           0.0182         0.9736         34         0.0149         0.9681         34         0.0186         0.9719         35           0.0027         0.9953         36         0.0032         0.9949         38         0.0044         0.9925         38           0.0017         0.9956         39         0.0020         0.9949         40         0.0018         0.9972         40           0.0006         0.9992         41         0.0006         0.9994										
0.0498         0.8446         29         0.0528         0.8280         29         0.0583         0.7922         29           0.0407         0.8853         30         0.0437         0.8717         30         0.0495         0.8417         30           0.0222         0.9175         31         0.0350         0.9067         31         0.0406         0.8823         31           0.0132         0.9736         34         0.0149         0.9691         34         0.0187         0.9583         34           0.0063         0.9891         36         0.0149         0.9691         34         0.0167         0.9583         34           0.0063         0.9891         36         0.0073         0.9869         36         0.0066         0.9815         36           0.0017         0.9958         38         0.0040         0.9918         37         0.0066         0.9813         37           0.0017         0.9956         39         0.0020         0.9970         39         0.0021         0.99972         40           0.0004         0.9992         41         0.0008         0.9997         43         0.0001         0.9995         43           0.0004										
0.0407         0.8853         30         0.0437         0.8717         30         0.0495         0.8417         30           0.0322         0.9175         31         0.0350         0.9067         31         0.0406         0.8823         31           0.0183         0.9604         33         0.0224         0.9542         33         0.0224         0.9396         33           0.0132         0.9736         34         0.0149         0.8691         34         0.0136         0.9719         35           0.0063         0.9891         36         0.0073         0.9869         36         0.0096         0.9815         36           0.0027         0.9959         38         0.0022         0.9976         39         0.0022         0.9984         37           0.0010         0.9986         40         0.0013         0.9982         40         0.0018         0.9972         40           0.0004         0.99996         41         0.0011         0.9984         41         0.0004         0.99995         43           0.0001         0.9999         43         0.0001         0.9001         9.9995         43           0.0001         0.9999         45										
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$										
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$									0.8823	
0.0132         0.9736         34         0.0149         0.9691         34         0.0187         0.9833         34           0.0092         0.9828         35         0.0105         0.9796         35         0.0136         0.9719         35           0.0041         0.9932         37         0.0049         0.9918         37         0.0066         0.9811         37           0.0027         0.9959         38         0.0020         0.9970         39         0.0024         0.9954         39           0.0010         0.9986         40         0.0013         0.9982         40         0.0018         0.9972         40           0.0004         0.9996         41         0.0004         0.9984         42         0.0007         0.9991         42           0.0001         0.9998         43         0.0001         0.9998         43         0.0002         0.9998         43           0.0001         0.9999         44         0.0001         0.9999         45         0.0001         0.9999         45           0.0000         1.0000         47         0.0000         1.0000         47         0.0000         1.0000         47           0.0000										
0.0092         0.9828         35         0.0105         0.9796         35         0.0136         0.9719         35           0.0063         0.9891         36         0.0073         0.9869         36         0.0096         0.9815         36           0.0027         0.9959         38         0.0032         0.9949         38         0.0029         0.9925         38           0.0010         0.9986         40         0.0013         0.9982         40         0.0011         0.9984         43           0.0006         0.9992         41         0.0008         0.9994         42         0.0007         0.9997         43           0.0002         0.9996         42         0.0003         0.9994         42         0.0007         0.9991         42           0.0002         0.9998         43         0.0001         0.9999         44         0.0001         0.9998         43           0.0001         0.9999         45         0.0001         0.9999         44         0.0001         0.9998         45           0.0000         1.0000         46         0.0001         0.0000         1.0000         47         0.0000         1.0000         1.0000         1.0000<										
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$\begin{array}{c ccccccccccccccccccccccccccccccccccc$										
0.0017         0.9976         39         0.0029         0.9980         39           0.0010         0.9986         40         0.0013         0.9982         40         0.0018         0.9972         40           0.0006         0.9992         41         0.0008         0.9990         41         0.0011         0.9984         41           0.0002         0.9998         43         0.0003         0.9997         43         0.0004         0.9995         43           0.0001         0.9999         45         0.0001         0.9998         44         0.0001         0.9999         45         0.0001         0.9999         45         0.0001         0.9998         45           0.0000         1.0000         46         0.0000         1.0000         46         0.0001         0.9998         45           0.0000         1.0000         47         0.0000         1.0000         47         0.0000         1.0000         46           0.0000         1.0000         48         0.0000         1.0000         49         0.0000         1.0000         49           0.0000         1.0000         50         0.0000         1.0000         53         0.0000         1.0000										
0.0010         0.9986         40         0.0013         0.9982         40         0.0018         0.9972         40           0.0006         0.9992         41         0.0008         0.9990         41         0.0011         0.9984         41           0.0002         0.9998         43         0.0003         0.9997         43         0.0004         0.9995         43           0.0001         0.9999         44         0.0001         0.9998         44         0.0002         0.9997         43           0.0001         0.9999         45         0.0001         0.9998         44         0.0001         0.9999         45           0.0000         1.0000         46         0.0001         0.9999         45         0.0001         0.9999         46           0.0000         1.0000         47         0.0000         1.0000         47         0.0000         1.0000         48           0.0000         1.0000         48         0.0000         1.0000         49         0.0000         1.0000         50           0.0000         1.0000         52         0.0000         1.0000         52         0.0000         1.0000         52           0.0000	0.0027									
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0.0002         0.9998         43         0.0003         0.9997         43         0.0004         0.9995         43           0.0001         0.9999         44         0.0001         0.9998         44         0.0002         0.9997         44           0.0001         0.9999         45         0.0001         0.9998         45         0.0001         0.9998         45           0.0000         1.0000         46         0.0001         0.9999         46         0.0001         0.9999         46           0.0000         1.0000         47         0.0000         1.0000         47         0.0000         1.0000         47           0.0000         1.0000         48         0.0000         1.0000         48         0.0000         1.0000         49           0.0000         1.0000         50         0.0000         1.0000         50         0.0000         1.0000         50           0.0000         1.0000         51         0.0000         1.0000         52         0.0000         1.0000         52           0.0000         1.0000         53         0.0000         1.0000         53         0.0000         1.0000         54           0.0000										
0.00010.9999440.00010.9998440.00020.9997440.00010.9999450.00010.9999450.00010.9998450.00001.0000460.00001.0000460.00010.9999460.00001.0000470.00001.0000470.00001.0000470.00001.0000480.00001.0000480.00001.0000480.00001.0000490.00001.0000490.00001.0000500.00001.0000500.00001.0000510.00001.0000510.00001.0000510.00001.0000510.00001.0000520.00001.0000530.00001.0000530.00001.0000530.00001.0000550.00001.0000550.00001.0000540.00001.0000550.00001.0000560.00001.0000570.00001.0000560.00001.0000570.00001.0000570.00001.0000590.00001.0000580.00001.0000580.00001.0000590.00001.0000580.00001.0000590.00001.0000590.00001.0000630.00001.0000630.00001.0000600.0000 <td></td>										
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0.0000         1.0000         63         0.0000         1.0000         63         0.0000         1.0000         63           0.0000         1.0000         64         0.0000         1.0000         64         0.0000         1.0000         64           0.0000         1.0000         65         0.0000         1.0000         65         0.0000         1.0000         65										
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0.0000 1.0000 65 0.0000 1.0000 65 0.0000 1.0000 65										
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Lundy/Trade Zone WBL РM **Existing Conditions** Avg. Queue Per Lane in Veh= 7.3 12 Percentile = 95%

Lundy/Trade Zone	
WBL	
PM	
Background Conditions	
Avg. Queue Per Lane in Veh=	
Percentile = 95%	

8.3

### Lundy/Trade Zone WBL PM Background Plus Project Conditions Avg. Queue Per Lane in Veh= Percentile = 95%

8.6

		Number of	I			Number of			Number of
Individual Probability	Cumulative Probability	Queued Vehicles		Individual Probability	Cumulative Probability	Queued Vehicles	Individual Probability	Cumulative Probability	Queued Vehicles
0.0007	0.0007	0		0.0002	0.0002	0	0.0002	0.0002	0
0.0051	0.0059	1		0.0020	0.0022	1	0.0015	0.0017	1
0.0187	0.0245	2		0.0083	0.0105	2	0.0066	0.0083	2
0.0451 0.0818	0.0696 0.1514	3 4		0.0230 0.0480	0.0335 0.0815	3 4	0.0191 0.0412	0.0274 0.0686	3 4
0.1185	0.1514	4 5		0.0480	0.1616	4 5	0.0412	0.1397	4 5
0.1432	0.4132	6		0.1114	0.2730	6	0.1023	0.2420	6
0.1484	0.5615	7		0.1328	0.4059	7	0.1262	0.3683	7
0.1344	0.6960	8		0.1386	0.5444	8	0.1363	0.5045	8
0.1083	0.8043	9		0.1285	0.6729	9	0.1308	0.6353	9
0.0785 0.0518	0.8828 0.9345	10 11		0.1072 0.0814	0.7802 0.8615	10 11	0.1129 0.0886	0.7482 0.8369	10 11
0.0313	0.9658	12		0.0566	0.9181	12	0.0638	0.9007	12
0.0174	0.9832	13		0.0363	0.9544	13	0.0424	0.9430	13
0.0090	0.9923	14		0.0217	0.9761	14	0.0261	0.9692	14
0.0044	0.9966	15		0.0120	0.9881	15	0.0150	0.9842	15
0.0020	0.9986	16		0.0063	0.9944	16	0.0081	0.9923	16
0.0008 0.0003	0.9995 0.9998	17 18		0.0031 0.0014	0.9975 0.9989	17 18	0.0041 0.0020	0.9965 0.9985	17 18
0.0001	0.9999	19		0.0006	0.9996	19	0.0009	0.9994	19
0.0000	1.0000	20		0.0003	0.9998	20	0.0004	0.9997	20
0.0000	1.0000	21		0.0001	0.9999	21	0.0002	0.9999	21
0.0000	1.0000	22		0.0000	1.0000	22	0.0001	1.0000	22
0.0000	1.0000	23		0.0000	1.0000	23	0.0000	1.0000	23
0.0000 0.0000	1.0000 1.0000	24 25		0.0000 0.0000	1.0000 1.0000	24 25	0.0000 0.0000	1.0000 1.0000	24 25
0.0000	1.0000	25		0.0000	1.0000	25	0.0000	1.0000	25
0.0000	1.0000	27		0.0000	1.0000	27	0.0000	1.0000	27
0.0000	1.0000	28		0.0000	1.0000	28	0.0000	1.0000	28
0.0000	1.0000	29		0.0000	1.0000	29	0.0000	1.0000	29
0.0000	1.0000	30		0.0000	1.0000	30	0.0000	1.0000	30
0.0000 0.0000	1.0000 1.0000	31 32		0.0000 0.0000	1.0000 1.0000	31 32	0.0000 0.0000	1.0000 1.0000	31 32
0.0000	1.0000	33		0.0000	1.0000	33	0.0000	1.0000	33
0.0000	1.0000	34		0.0000	1.0000	34	0.0000	1.0000	34
0.0000	1.0000	35		0.0000	1.0000	35	0.0000	1.0000	35
0.0000	1.0000	36		0.0000	1.0000	36	0.0000	1.0000	36
0.0000 0.0000	1.0000 1.0000	37 38		0.0000 0.0000	1.0000 1.0000	37 38	0.0000 0.0000	1.0000 1.0000	37 38
0.0000	1.0000	39		0.0000	1.0000	39	0.0000	1.0000	30 39
0.0000	1.0000	40		0.0000	1.0000	40	0.0000	1.0000	40
0.0000	1.0000	41		0.0000	1.0000	41	0.0000	1.0000	41
0.0000	1.0000	42		0.0000	1.0000	42	0.0000	1.0000	42
0.0000	1.0000	43		0.0000	1.0000	43	0.0000	1.0000	43
0.0000 0.0000	1.0000 1.0000	44 45		0.0000 0.0000	1.0000 1.0000	44 45	0.0000 0.0000	1.0000 1.0000	44 45
0.0000	1.0000	45 46		0.0000	1.0000	45 46	0.0000	1.0000	46
0.0000	1.0000	47		0.0000	1.0000	47	0.0000	1.0000	47
0.0000	1.0000	48		0.0000	1.0000	48	0.0000	1.0000	48
0.0000	1.0000	49		0.0000	1.0000	49	0.0000	1.0000	49
0.0000	1.0000	50		0.0000	1.0000	50	0.0000	1.0000	50
0.0000 0.0000	1.0000 1.0000	51 52		0.0000 0.0000	1.0000 1.0000	51 52	0.0000 0.0000	1.0000 1.0000	51 52
0.0000	1.0000	53		0.0000	1.0000	53	0.0000	1.0000	53
0.0000	1.0000	54		0.0000	1.0000	54	0.0000	1.0000	54
0.0000	1.0000	55		0.0000	1.0000	55	0.0000	1.0000	55
0.0000	1.0000	56 57		0.0000	1.0000	56 57	0.0000	1.0000	56 57
0.0000 0.0000	1.0000 1.0000	57 58		0.0000 0.0000	1.0000 1.0000	57 58	0.0000 0.0000	1.0000 1.0000	57 58
0.0000	1.0000	58 59		0.0000	1.0000	58 59	0.0000	1.0000	58 59
0.0000	1.0000	60		0.0000	1.0000	60	0.0000	1.0000	60
0.0000	1.0000	61		0.0000	1.0000	61	0.0000	1.0000	61
0.0000	1.0000	62		0.0000	1.0000	62	0.0000	1.0000	62
0.0000	1.0000	63		0.0000	1.0000	63	0.0000	1.0000	63
0.0000 0.0000	1.0000 1.0000	64 65		0.0000 0.0000	1.0000 1.0000	64 65	0.0000 0.0000	1.0000 1.0000	64 65
2.0000			L	2.0000			0.0000		10 5/11/2022

Capitol/Trade Zone	e	
AM		
Existing Conditions	6	
Avg. Queue Per La	ane in Veh=	17.9
Percentile =	95%	25

18.4 26

# Capitol/Trade Zone NBL AM Background Plus Project Conditions Avg. Queue Per Lane in Veh= Percentile = 95%

18.7 26

Producting         Product	Individual	Cumulative	Number of Queued	Individual	Cumulative	Number of Queued		Individual	Cumulative	Number of Queued
1         0.0000         1         0.0000         1         0.0000         1           0.0000         0.0000         3         0.0000         0.0000         3         0.0000         3           0.001         0.0001         4         0.0000         3         0.0001         4         0.0000         4           0.001         0.0014         5         0.0002         0.0022         5         0.0012         0.0012         5           0.0020         0.0021         5         0.0012         0.0012         0.0012         5         0.0012         0.0012         5         0.0012         0.0012         5         0.0021         5         0.0021         5         0.0021         5         0.0021         5         0.0021         5         0.0021         5         0.0022         7         0.0025         0.0047         8         0.0025         0.0047         8         0.0022         0.0153         0.0226         0.0121         0.0161         0.0216         11         0.0167         0.0403         11         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1<	Probability	Probability	Vehicles	Probability	Probability	Vehicles		Probability	Probability	Vehicles
0.0000         0.0000         2         0.0000         0.0000         3         0.0000         0.0000         3           0.0001         0.0001         4         0.0000         0.0000         3         0.0000         0.0000         3           0.0003         0.0001         4         0.0002         5         0.0001         0.0000         4           0.0004         0.0001         4         0.0002         5         0.0001         0.0002         6           0.0004         0.0001         6         0.0002         5         0.0002         0.0002         6           0.0004         0.0007         0.0121         9         0.00028         0.0107         6           0.0008         0.0164         9         0.00121         0.0123         0.0103         0.0106         9           0.0158         0.0163         0.0121         0.0228         0.1043         0.111         0.111         0.111         0.111         0.111         0.0123         0.0228         0.1063         11           0.0228         0.1488         13         0.0449         0.1215         13         0.0463         111           0.02281         0.1420         0.1421										
0.0000         0.0000         3         0.0000         3         0.0000         3           0.0001         0.0004         5         0.0002         0.0002         5         0.0000         0.0002         5           0.0003         0.0011         6         0.0002         0.0002         7         0.0012         0.0015         0.0002         0.0015         0.0002         0.0015         0.0015         0.0015         0.0015         0.0015         0.0015         0.0015         0.0015         0.0015         0.0016         0         0.0015         0.0016         0         0.0015         0.0016         0         0.0015         0.0016         0         0.0015         0.0016         0										
b         0.0001         0.0001         4         0.0000         0.0000         4           0.0008         0.0011         6         0.0005         0.0002         5         0.0001         0.0002         5           0.0008         0.0011         6         0.0002         7         0.0012         0.0019         7           0.0044         0.0076         8         0.0023         0.0044         8         0.0029         0.0014         8           0.0048         0.0147         9         0.0029         0.0047         8         0.0029         0.0048         11           0.0157         0.0322         11         0.0132         0.0244         10         0.0119         0.0211         0.0333         0.0451         11         10.0119         0.0211         0.0333         0.0451         11         11         13         0.0414         0.0111         13         0.0414         0.0111         13         0.0414         0.0111         13         0.0414         0.0111         13         0.0414         0.0111         13         0.0414         0.0111         13         0.0414         0.0214         0.0499         14         0.0414         0.0414         0.0414         0.0414			2			2				
0.0003         0.0004         5         0.0002         0.0002         5         0.0007         6           0.0020         0.0031         7         0.0044         0.0022         7         0.0016         0.0007         6           0.0088         0.0144         0.0022         7         0.0047         8         0.0028         0.0047         8           0.0088         0.0144         9         0.0067         0.121         9         0.0228         0.0403         11           0.1579         11         0.0226         0.4450         11         0.0121         0.0403         12           0.1526         0.1488         0.1449         0.1715         13         0.0413         0.0403         11           0.1526         0.1488         0.157         0.0538         0.3371         16         0.0644         0.1111         13           0.0566         0.3567         18         0.03631         0.5711         18         0.0364         0.4664         17           0.0566         0.5735         18         0.06613         0.22         0.0643         0.6746         20           0.0777         0.7402         0         0.0643         0.6746 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>										
0.0008         0.0011         6         0.0005         0.008         6         0.0012         0.0017         0.0017           0.0044         0.0076         8         0.0033         0.0064         8         0.0025         0.0047         8           0.0088         0.0158         0.0322         10         0.01123         0.0244         10         0.01167         0.0403         11           0.0388         0.0462         12         0.0171         0.0766         12         0.0271         0.0663         0.0663           0.0387         0.0482         12         0.0171         0.0766         12         0.0283         0.0683         0.1663         11           0.0387         0.0482         12         0.0377         0.2534         15         0.0681         0.2363           0.0380         0.6615         19         0.0694         0.6115         19         0.0694         0.6469         18           0.0380         0.6615         19         0.0694         0.6115         19         0.0694         0.6144         0.4064           0.0470         0.8072         21         0.0732         0.7680         21         0.07561         21           0.0										
0.0044         0.0076         8         0.0053         0.0054         8         0.0058         0.0076         9           0.0158         0.0322         10         0.0123         0.0244         10         0.0110         0.0216         10           0.0257         0.0579         11         0.0266         11         0.0110         0.0211         0.0443         111           0.0383         0.0662         12         0.0411         1.0111         133         0.0448         0.1111         133           0.06672         0.2460         1.44         0.0591         0.1607         1.4         0.0588         0.1666           0.0866         0.3857         16         0.0338         0.3371         16         0.0641         0.3474         16           0.0846         0.3857         16         0.0331         0.5211         19         0.0649         16           0.0343         0.5311         0.2371         16         0.0421         0.489         16           0.0473         0.6172         21         0.0473         0.781         23         0.0475         0.781         24           0.0473         0.9614         23         0.0478         0.8784										
0.0088         0.0164         9         0.0677         0.0121         9         0.0598         0.0109         0.0216           0.0277         0.0579         11         0.0206         0.0460         11         0.0110         0.0216         10           0.0526         0.1488         13         0.0449         0.1215         13         0.0418         0.1111         13           0.0672         0.2460         144         0.0697         144         0.0658         0.1669         144           0.0672         0.2460         15         0.0727         0.2534         15         0.0694         0.2367           0.0694         0.3657         16         0.0369         0.4280         17         0.0891         0.4044           0.0694         0.6575         18         0.0990         0.4280         17         0.0891         0.4042           0.0670         0.6772         21         0.0732         0.7860         21         0.0755         0.7712         21           0.0470         0.8072         21         0.0755         0.7712         21         0.0432         0.4142         22           0.0470         0.8072         24         0.0441         0.8						7		0.0012		
0.0158         0.0322         10         0.0133         0.0244         10         0.0110         0.0215         11           0.0333         0.0662         12         0.0377         0.0766         12         0.0403         11           0.0562         0.1484         13         0.0491         0.1111         13         0.0418         0.1111           0.0672         0.2460         144         0.0691         0.1807         14         0.0698         0.1411           0.0686         0.3857         16         0.0838         0.3371         16         0.0891         0.4744         16           0.0686         0.3857         18         0.0331         0.5211         18         0.0224         0.4989         18           0.0386         0.5735         18         0.0313         0.5211         18         0.0490         0.5867         19           0.0423         0.8617         22         0.0673         0.5889         21         0.0674         23           0.0423         0.8617         22         0.0673         0.8899         21         0.8442         23           0.0423         0.8617         22         0.0674         0.9684         24										
0.0257         0.0579         11         0.0266         0.0450         11         0.0187         0.0403         111           0.0526         0.1488         13         0.0449         0.1215         13         0.0418         0.1111         13           0.0672         0.2160         14         0.0581         0.2262         15         0.0727         0.2534         15         0.06944         0.2333         15           0.0891         0.2262         15         0.0727         0.2534         15         0.0891         0.3464         0.06944         0.2383         15           0.0942         0.4789         17         0.0909         0.4280         17         0.0909         0.8897         19           0.0670         0.8072         21         0.0175         0.7501         21         0.0775         121           0.0423         0.8041         23         0.0472         0.8784         23         0.0217         28         0.0175         0.9171         21           0.0423         0.8041         23         0.0178         0.9463         25         0.0216         0.98371         25           0.0425         0.8562         26         0.0178         0.9463										
0.0383         0.0982         12         0.0374         0.0766         12         0.0291         0.0291         0.0683         12           0.0672         0.2160         14         0.0591         0.1807         14         0.0558         0.1669         14           0.0686         0.3857         16         0.0333         0.3371         16         0.0691         0.4964         177           0.0936         0.5735         18         0.0331         0.5211         18         0.0924         0.4969         18           0.0936         0.5735         18         0.0331         0.5211         18         0.0924         0.4969         19           0.0767         0.4072         21         0.0732         0.7660         21         0.0755         0.7741         22           0.0637         0.8617         22         0.0633         0.6848         20         0.0654         0.8142         22           0.0435         0.9374         23         0.0621         0.9588         23         0.0218         0.9589         23           0.0155         0.9737         27         0.0151         0.9737         27         0.0151         0.9999         29         0.0065 <td></td>										
0.0526         0.1468         13         0.0449         0.1215         13         0.0418         0.1111         13           0.0671         0.2862         15         0.0727         0.2834         15         0.0694         0.2363         15           0.0894         0.4799         17         0.0309         0.4280         17         0.0891         0.4064         17           0.0894         0.6753         18         0.0301         0.5211         18         0.0394         0.4645         20           0.0767         0.4702         0.0804         0.6115         19         0.0694         0.6761         0.8094         0.6764         20         0.06863         23           0.0767         0.4702         21         0.0732         0.7680         21         0.0621         0.8663         23           0.0423         0.3041         23         0.0473         0.9762         24         0.0400         0.9683         26         0.0226         0.3577         26         0.0135         0.9773         27         0.0665         0.9904         29         0.0065         0.9904         29         0.0065         0.9904         29         0.0065         0.9904         29										
0.0672         0.2160         14         0.0591         0.1807         14         0.0558         0.1669         14           0.0896         0.3867         16         0.0738         0.3371         16         0.0691         0.3174         16           0.0936         0.5735         18         0.0931         0.5211         18         0.0924         0.4989         18           0.0936         0.6735         18         0.0931         0.5211         18         0.0924         0.4989         18           0.0767         0.4702         20         0.0333         0.6848         20         0.0654         0.6641         0.8142         22           0.0545         0.4817         22         0.0613         0.8293         22         0.0621         0.9868         23           0.0155         0.9737         26         0.0279         0.9444         25         0.0308         24           0.0155         0.9737         27         0.0151         0.9737         27         0.0151         0.9738         26         0.0218         0.9859         26           0.0155         0.9773         27         0.0151         0.9793         27         0.0151         0.9990										
0.0942         0.4799         17         0.0909         0.4280         17         0.0991         0.4064         17           0.0880         0.6615         19         0.0904         0.6115         19         0.0999         0.5897         19           0.0787         0.7402         20         0.0933         0.6948         20         0.0449         0.7746         20           0.0453         0.8072         21         0.0732         0.7860         21         0.0755         0.7501         21           0.0423         0.9011         23         0.0492         0.8784         23         0.0451         0.8663         23           0.0125         0.9352         25         0.0279         0.9441         25         0.0303         0.9371         25           0.0135         0.9732         27         0.0151         0.9738         27           0.0060         0.9904         28         0.0024         0.9973         27         0.0151         0.9738         27           0.0064         0.9994         30         0.0024         0.9973         33         0.0064         0.9996         33           0.0024         0.99943         30         0.0077										
0.0936         0.5735         18         0.0931         0.5211         18         0.0924         0.4989         18           0.0787         0.7402         20         0.0833         0.6948         20         0.0849         0.6765         0.7501         21           0.0545         0.8617         12         0.0732         0.7860         21         0.0755         0.7501         21           0.0545         0.8617         12         0.0643         0.8283         22         0.0641         0.8162         23           0.0515         0.9562         25         0.0279         0.9441         25         0.0303         0.3713         27           0.0155         0.9737         26         0.0198         0.9638         26         0.0218         0.9553         27           0.0066         0.9905         28         0.0057         0.9119         29         0.0065         0.9904         28           0.0024         0.9907         30         0.0035         0.9673         30         0.0044         0.9996         32           0.0044         0.9906         33         0.0007         0.9916         33         0.0004         0.9999         33         0.0001										
0.0880         0.6615         19         0.0904         0.6115         19         0.0909         0.5897         19           0.0670         0.4022         21         0.0732         0.7660         21         0.0755         0.7501         21           0.0454         0.8617         22         0.0413         0.8293         22         0.0641         0.8142         22           0.0435         0.9356         24         0.0378         0.91162         24         0.0405         0.9068         24           0.0256         0.9577         26         0.0198         0.9638         26         0.0218         0.9589         26           0.0163         0.9840         27         0.0135         0.9913         28         0.0065         0.9804         28           0.0024         0.9904         29         0.0057         0.9919         29         0.0065         0.9804         30           0.0014         0.9984         31         0.0021         0.9983         30         0.0044         0.9969         33           0.0004         0.9994         32         0.0012         0.9998         33         0.0014         0.9969         34           0.0001										
0.0787         0.7402         20         0.0833         0.6948         20         0.0849         0.6746         21           0.0545         0.8617         22         0.0613         0.8293         22         0.0641         0.8142         22           0.0423         0.9041         23         0.0492         0.8784         23         0.0621         0.8663         23           0.0226         0.9582         25         0.0279         0.9441         25         0.0303         0.9371         25           0.0105         0.9737         26         0.0198         0.9662         28         0.0019         0.9739         27           0.0066         0.9905         28         0.0027         0.9919         29         0.0065         0.9904         29           0.0044         0.9970         30         0.0023         0.9953         30         0.0040         0.9984         31         0.0021         0.9986         32         0.0014         0.9989         32           0.0004         0.9999         36         0.0002         0.9998         35         0.0002         0.9998         36         0.0001         0.9999         36         0.0001         0.9999         36 <td></td>										
0.0670         0.8072         21         0.0732         0.7680         21         0.0755         0.7501         21           0.0423         0.9041         23         0.0492         0.8784         23         0.0621         0.8613         23           0.0315         0.9336         24         0.0378         0.9152         24         0.0405         0.9068         24           0.0135         0.9737         25         0.0279         0.9441         25         0.0313         0.9371         25           0.0163         0.9840         27         0.0135         0.9773         27         0.0151         0.9739         28           0.0024         0.9946         29         0.0057         0.9919         29         0.0065         0.9904         29           0.0024         0.9969         33         0.0012         0.9974         31         0.0024         0.9969         31           0.0004         0.9994         32         0.0012         0.9986         33         0.0004         0.9996         33         0.0024         0.9989         35           0.0004         0.9998         35         0.0002         0.9988         35         0.0002         0.9989										
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$										
0.0423         0.0411         23         0.0422         0.8764         23         0.0521         0.8663         23           0.0226         0.9582         25         0.0279         0.9441         25         0.0218         0.9589         26           0.0155         0.9737         26         0.0198         0.9688         26         0.0218         0.9589         26           0.0103         0.9840         27         0.0135         0.9773         27         0.0151         0.9738         27           0.0060         0.9905         28         0.0087         0.9919         29         0.0065         0.9963         30         0.0040         0.9944         30           0.0014         0.9994         31         0.0021         0.9996         33         0.0004         0.9993         32           0.0002         0.9998         34         0.0004         0.9996         33         0.0002         0.9998         35           0.0001         0.9999         36         0.0001         0.9996         34         0.0001         0.9998         35           0.0001         0.9999         36         0.0001         0.9998         35         0.0001         0.9999										
0.0315         0.9356         24         0.0378         0.9162         24         0.0465         0.9068         24           0.0155         0.9737         26         0.0198         0.9638         26         0.0303         0.9371         25           0.0166         0.9905         28         0.0089         0.9773         27         0.0151         0.9739         27           0.0066         0.9905         28         0.0089         0.9862         28         0.0100         0.9844         29           0.0024         0.9970         30         0.0025         0.9993         30         0.0040         0.9984         31           0.0024         0.99970         30         0.0024         0.9996         31         0.0024         0.9996         32           0.0024         0.9996         33         0.0007         0.9993         33         0.0004         0.9996         34           0.0001         0.9999         35         0.0002         0.9998         35         0.0001         0.9999         36         0.0001         0.9999         36         0.0001         0.9999         36         0.0001         0.9999         36         0.0000         0.0000         1.000										
0.0155         0.9737         26         0.0198         0.9638         26         0.0218         0.9589         26           0.0066         0.9905         28         0.0089         0.9862         28         0.0100         0.9833         28           0.0040         0.9946         29         0.0057         0.9919         29         0.0064         0.9904         29           0.0014         0.9970         30         0.0021         0.9974         31         0.0024         0.9963         32           0.0004         0.9996         33         0.0007         0.9933         3         0.0002         0.99963         35           0.0001         0.9998         35         0.0002         0.9998         35         0.0001         0.9999         36           0.0001         0.9999         36         0.0001         0.9999         36         0.0001         0.9999         36           0.0000         1.0000         37         0.0000         1.0000         38         0.0000         1.0000         38           0.0000         1.0000         38         0.0000         1.0000         38         0.0000         1.0000         40           0.0000			24							
0.0103         0.9840         27         0.0135         0.9773         27         0.0151         0.9738         27           0.0066         0.9905         28         0.0087         0.9919         29         0.0065         0.9904         29           0.0024         0.9970         30         0.0035         0.9933         30         0.0040         0.9944         30           0.0014         0.9994         31         0.0024         0.9969         33         0.0004         0.9996         33         0.0004         0.9996         33         0.0004         0.9996         33         0.0004         0.9996         34         0.0004         0.9998         35         0.0001         0.9998         35         0.0001         0.9998         35         0.0001         0.9998         35         0.0001         0.9999         36         0.0001         0.9999         36         0.0001         0.9999         36         0.0001         0.9999         36         0.0000         1.0000         38         0.0000         1.0000         38         0.0000         1.0000         38         0.0000         1.0000         38         0.0000         1.0000         40         0.0000         1.0000         41										
0.0066         0.9905         28         0.0089         0.9862         28         0.0100         0.9839         28           0.0024         0.9970         30         0.0037         0.9953         30         0.0040         0.9944         30           0.0014         0.9984         31         0.0021         0.9974         31         0.0024         0.9943         32           0.0004         0.9996         33         0.0007         0.9993         33         0.0006         0.9991         32           0.0001         0.9998         34         0.0001         0.9998         34         0.0001         0.9998         35         0.0002         0.9998         35         0.0001         0.9999         36         0.0001         0.9999         36         0.0001         0.9999         37         0.0000         1.0000         37         0.0000         1.0000         38         0.0000         1.0000         38         0.0000         1.0000         38         0.0000         1.0000         40         0.0000         1.0000         41         0.0000         1.0000         41         0.0000         1.0000         42         0.0000         1.0000         42         0.0000         1.0000			26							
0.0040         0.9946         29         0.0065         0.9904         29           0.0024         0.9970         30         0.0035         0.9974         31         0.0024         0.9964         30           0.0014         0.9984         31         0.0021         0.9974         31         0.0024         0.9969         31           0.0004         0.9996         33         0.0004         0.9986         32         0.0014         0.9983         32           0.0002         0.9996         34         0.0004         0.9996         34         0.0004         0.9998         35           0.0001         0.9999         35         0.0001         0.9998         36         0.0001         0.9998         36           0.0000         1.0000         37         0.0000         1.0000         38         0.0000         1.0000         38           0.0000         1.0000         39         0.0000         1.0000         40         0.0000         1.0000         40           0.0000         1.0000         41         0.0000         1.0000         43         0.0000         1.0000         43           0.0000         1.0000         43         0.0000										
0.0024         0.9970         30         0.0035         0.9953         30         0.0044         0.9944         30           0.0014         0.9994         31         0.0021         0.9986         32         0.0014         0.9999         31           0.0004         0.9996         33         0.0007         0.9936         33         0.0008         0.9991         33           0.0001         0.9998         34         0.0002         0.9998         35         0.0002         0.9998         35           0.0001         0.9999         36         0.0001         0.9998         35         0.0001         0.9999         36           0.0000         1.0000         37         0.0000         1.0000         37         0.0001         0.9999         36           0.0000         1.0000         38         0.0000         1.0000         38         0.0000         1.0000         38           0.0000         1.0000         40         0.0000         1.0000         41         0.0000         1.0000         42           0.0000         1.0000         43         0.0000         1.0000         44         0.0000         1.0000         44           0.0000			28							
0.0014         0.9984         31         0.0021         0.9974         31         0.0024         0.9989         31           0.0004         0.9996         32         0.0012         0.9983         33         0.0004         0.9995         34           0.0001         0.9998         34         0.0004         0.9996         35         0.0002         0.9998         35           0.0001         0.9999         36         0.0001         0.9999         36         0.0001         0.9999         36           0.0000         1.0000         37         0.0001         0.9999         36         0.0001         0.9999         36           0.0000         1.0000         38         0.0000         1.0000         38         0.0000         1.0000         38           0.0000         1.0000         39         0.0000         1.0000         39         0.0000         1.0000         39           0.0000         1.0000         41         0.0000         1.0000         41         0.0000         1.0000         42           0.0000         1.0000         43         0.0000         1.0000         43         0.0000         1.0000         44           0.0000			29							
0.0008         0.9996         33         0.0012         0.9986         32         0.0014         0.9983         32           0.0004         0.9996         33         0.0007         0.9993         33         0.0008         0.9991         33           0.0001         0.9998         34         0.0004         0.9996         34         0.0001         0.9998         35           0.0001         0.9999         36         0.0001         0.9999         36         0.0001         0.9999         36           0.0000         1.0000         37         0.0000         1.0000         37         0.0001         1.0000         38           0.0000         1.0000         38         0.0000         1.0000         38         0.0000         1.0000         38           0.0000         1.0000         40         0.0000         1.0000         40         0.0000         1.0000         40           0.0000         1.0000         41         0.0000         1.0000         42         0.0000         1.0000         43           0.0000         1.0000         42         0.0000         1.0000         43         0.0000         1.0000         44           0.0000										
0.0004         0.9998         33         0.0007         0.9983         33         0.0008         0.9991         33           0.0001         0.9998         34         0.0004         0.9996         34         0.0004         0.9995         34           0.0001         0.9999         36         0.0001         0.9998         35         0.0001         0.9999         36           0.0000         1.0000         37         0.0000         1.0000         37         0.0001         0.9999         37           0.0000         1.0000         38         0.0000         1.0000         38         0.0000         1.0000         38           0.0000         1.0000         40         0.0000         1.0000         40         0.0000         1.0000         40           0.0000         1.0000         41         0.0000         1.0000         42         0.0000         1.0000         42           0.0000         1.0000         43         0.0000         1.0000         43         0.0000         42           0.0000         1.0000         43         0.0000         1.0000         44         0.0000         1.0000         44           0.0000         1.0000										
0.0001         0.9999         35         0.0001         0.9999         36         0.0002         0.9998         35           0.0001         0.9999         36         0.0001         0.9999         36         0.0001         0.9999         36           0.0000         1.0000         37         0.0000         1.0000         38         0.0000         1.0000         38           0.0000         1.0000         38         0.0000         1.0000         38         0.0000         1.0000         38           0.0000         1.0000         40         0.0000         1.0000         40         0.0000         1.0000         40           0.0000         1.0000         41         0.0000         1.0000         41         0.0000         1.0000         42           0.0000         1.0000         43         0.0000         1.0000         42         0.0000         1.0000         43           0.0000         1.0000         44         0.0000         1.0000         44         0.0000         1.0000         44           0.0000         1.0000         45         0.0000         1.0000         46         0.0000         1.0000         47           0.0000										
0.0001         0.9999         36         0.0001         0.9999         36         0.0001         0.9999         37           0.0000         1.0000         37         0.0000         1.0000         38         0.0000         1.0000         38           0.0000         1.0000         39         0.0000         1.0000         38         0.0000         1.0000         39           0.0000         1.0000         40         0.0000         1.0000         40         0.0000         1.0000         40           0.0000         1.0000         41         0.0000         1.0000         41         0.0000         1.0000         42           0.0000         1.0000         42         0.0000         1.0000         42         0.0000         1.0000         42           0.0000         1.0000         43         0.0000         1.0000         44         0.0000         1.0000         44           0.0000         1.0000         45         0.0000         1.0000         46         0.0000         1.0000         47           0.0000         1.0000         48         0.0000         1.0000         48         0.0000         1.0000         50           0.0000	0.0002		34			34				34
0.0000         1.0000         37         0.0000         1.0000         37         0.0001         0.9999         37           0.0000         1.0000         38         0.0000         1.0000         38         0.0000         1.0000         38           0.0000         1.0000         40         0.0000         1.0000         40         0.0000         1.0000         40           0.0000         1.0000         40         0.0000         1.0000         41         0.0000         1.0000         40           0.0000         1.0000         41         0.0000         1.0000         42         0.0000         1.0000         42           0.0000         1.0000         43         0.0000         1.0000         43         0.0000         1.0000         43           0.0000         1.0000         44         0.0000         1.0000         44         0.0000         1.0000         44           0.0000         1.0000         46         0.0000         1.0000         47         0.0000         1.0000         47           0.0000         1.0000         47         0.0000         1.0000         48         0.0000         1.0000         49           0.0000			35							
0.0000         1.0000         38         0.0000         1.0000         38         0.0000         1.0000         38           0.0000         1.0000         39         0.0000         1.0000         39         0.0000         1.0000         39           0.0000         1.0000         40         0.0000         1.0000         40         0.0000         1.0000         40           0.0000         1.0000         41         0.0000         1.0000         41         0.0000         1.0000         41           0.0000         1.0000         42         0.0000         1.0000         43         0.0000         1.0000         42           0.0000         1.0000         44         0.0000         1.0000         43         0.0000         1.0000         43           0.0000         1.0000         45         0.0000         1.0000         46         0.0000         1.0000         46           0.0000         1.0000         48         0.0000         1.0000         48         0.0000         1.0000         48           0.0000         1.0000         49         0.0000         1.0000         52         0.0000         1.0000         53           0.0000										
0.0000         1.0000         39         0.0000         1.0000         39         0.0000         1.0000         39           0.0000         1.0000         40         0.0000         1.0000         40         0.0000         1.0000         40           0.0000         1.0000         41         0.0000         1.0000         41         0.0000         41           0.0000         1.0000         42         0.0000         1.0000         42         0.0000         1.0000         42           0.0000         1.0000         43         0.0000         1.0000         43         0.0000         1.0000         43           0.0000         1.0000         45         0.0000         1.0000         44         0.0000         1.0000         45           0.0000         1.0000         46         0.0000         1.0000         46         0.0000         1.0000         46           0.0000         1.0000         47         0.0000         1.0000         48         0.0000         1.0000         48           0.0000         1.0000         50         0.0000         1.0000         51         0.0000         1.0000         52           0.0000         1.0000										
0.0000         1.0000         40         0.0000         1.0000         40         0.0000         1.0000         40           0.0000         1.0000         41         0.0000         1.0000         41         0.0000         1.0000         41           0.0000         1.0000         42         0.0000         1.0000         42         0.0000         1.0000         42           0.0000         1.0000         43         0.0000         1.0000         43         0.0000         1.0000         43           0.0000         1.0000         44         0.0000         1.0000         44         0.0000         1.0000         44           0.0000         1.0000         45         0.0000         1.0000         45         0.0000         1.0000         46           0.0000         1.0000         46         0.0000         1.0000         48         0.0000         1.0000         47           0.0000         1.0000         48         0.0000         1.0000         48         0.0000         1.0000         48           0.0000         1.0000         50         0.0000         1.0000         50         0.0000         1.0000         50           0.0000										
0.0000         1.0000         41         0.0000         1.0000         41           0.0000         1.0000         42         0.0000         1.0000         42           0.0000         1.0000         43         0.0000         1.0000         42           0.0000         1.0000         43         0.0000         1.0000         43           0.0000         1.0000         44         0.0000         1.0000         44           0.0000         1.0000         45         0.0000         1.0000         45           0.0000         1.0000         46         0.0000         1.0000         46           0.0000         1.0000         47         0.0000         1.0000         47           0.0000         1.0000         48         0.0000         1.0000         48           0.0000         1.0000         48         0.0000         1.0000         49           0.0000         1.0000         50         0.0000         1.0000         50           0.0000         1.0000         51         0.0000         1.0000         51           0.0000         1.0000         52         0.0000         1.0000         52           0.0000 </td <td></td>										
0.0000         1.0000         42         0.0000         1.0000         42         0.0000         1.0000         42           0.0000         1.0000         43         0.0000         1.0000         43         0.0000         1.0000         43           0.0000         1.0000         44         0.0000         1.0000         44         0.0000         1.0000         44           0.0000         1.0000         45         0.0000         1.0000         45         0.0000         1.0000         46           0.0000         1.0000         46         0.0000         1.0000         46         0.0000         1.0000         47           0.0000         1.0000         47         0.0000         1.0000         48         0.0000         1.0000         48           0.0000         1.0000         49         0.0000         1.0000         49         0.0000         1.0000         49           0.0000         1.0000         50         0.0000         1.0000         50         0.0000         1.0000         50           0.0000         1.0000         52         0.0000         1.0000         52         0.0000         1.0000         53           0.0000										
0.0000         1.0000         44         0.0000         1.0000         44         0.0000         1.0000         44           0.0000         1.0000         45         0.0000         1.0000         45         0.0000         1.0000         45           0.0000         1.0000         46         0.0000         1.0000         46         0.0000         1.0000         46           0.0000         1.0000         47         0.0000         1.0000         47         0.0000         1.0000         47           0.0000         1.0000         48         0.0000         1.0000         48         0.0000         1.0000         48           0.0000         1.0000         49         0.0000         1.0000         48         0.0000         1.0000         49           0.0000         1.0000         50         0.0000         1.0000         50         0.0000         1.0000         50           0.0000         1.0000         52         0.0000         1.0000         52         0.0000         1.0000         52           0.0000         1.0000         53         0.0000         1.0000         55         0.0000         1.0000         56           0.0000										
0.0000         1.0000         45         0.0000         1.0000         45         0.0000         1.0000         45           0.0000         1.0000         46         0.0000         1.0000         46         0.0000         1.0000         46           0.0000         1.0000         47         0.0000         1.0000         47         0.0000         1.0000         47           0.0000         1.0000         48         0.0000         1.0000         48         0.0000         1.0000         48           0.0000         1.0000         49         0.0000         1.0000         49         0.0000         1.0000         49           0.0000         1.0000         50         0.0000         1.0000         50         0.0000         1.0000         50           0.0000         1.0000         51         0.0000         1.0000         52         0.0000         1.0000         52           0.0000         1.0000         53         0.0000         1.0000         53         0.0000         1.0000         54           0.0000         1.0000         55         0.0000         1.0000         55         0.0000         1.0000         57           0.0000	0.0000	1.0000	43	0.0000	1.0000			0.0000	1.0000	43
0.0000         1.0000         46         0.0000         1.0000         46         0.0000         1.0000         46           0.0000         1.0000         47         0.0000         1.0000         47         0.0000         1.0000         47           0.0000         1.0000         48         0.0000         1.0000         48         0.0000         1.0000         48           0.0000         1.0000         49         0.0000         1.0000         49         0.0000         1.0000         49           0.0000         1.0000         50         0.0000         1.0000         50         0.0000         1.0000         50           0.0000         1.0000         51         0.0000         1.0000         51         0.0000         1.0000         52           0.0000         1.0000         53         0.0000         1.0000         53         0.0000         1.0000         53           0.0000         1.0000         54         0.0000         1.0000         55         0.0000         1.0000         56           0.0000         1.0000         57         0.0000         1.0000         57         0.0000         1.0000         57           0.0000										
0.0000         1.0000         47         0.0000         1.0000         47         0.0000         1.0000         47           0.0000         1.0000         48         0.0000         1.0000         48         0.0000         1.0000         48           0.0000         1.0000         49         0.0000         1.0000         49         0.0000         1.0000         49           0.0000         1.0000         50         0.0000         1.0000         50         0.0000         1.0000         50           0.0000         1.0000         51         0.0000         1.0000         51         0.0000         1.0000         51           0.0000         1.0000         52         0.0000         1.0000         52         0.0000         1.0000         53           0.0000         1.0000         53         0.0000         1.0000         53         0.0000         1.0000         54           0.0000         1.0000         55         0.0000         1.0000         55         0.0000         1.0000         56           0.0000         1.0000         57         0.0000         1.0000         57         0.0000         1.0000         57           0.0000										
0.0000         1.0000         48         0.0000         1.0000         48         0.0000         1.0000         48           0.0000         1.0000         49         0.0000         1.0000         49         0.0000         1.0000         49           0.0000         1.0000         50         0.0000         1.0000         50         0.0000         1.0000         50           0.0000         1.0000         51         0.0000         1.0000         51         0.0000         1.0000         51           0.0000         1.0000         52         0.0000         1.0000         52         0.0000         1.0000         52           0.0000         1.0000         53         0.0000         1.0000         53         0.0000         1.0000         53           0.0000         1.0000         54         0.0000         1.0000         55         0.0000         1.0000         55           0.0000         1.0000         56         0.0000         1.0000         57         0.0000         1.0000         57           0.0000         1.0000         57         0.0000         1.0000         58         0.0000         1.0000         58           0.0000										
0.0000         1.0000         49         0.0000         1.0000         49         0.0000         1.0000         49           0.0000         1.0000         50         0.0000         1.0000         50         0.0000         1.0000         50           0.0000         1.0000         51         0.0000         1.0000         51         0.0000         1.0000         51           0.0000         1.0000         52         0.0000         1.0000         52         0.0000         1.0000         52           0.0000         1.0000         53         0.0000         1.0000         53         0.0000         1.0000         54           0.0000         1.0000         54         0.0000         1.0000         55         0.0000         1.0000         54           0.0000         1.0000         55         0.0000         1.0000         55         0.0000         1.0000         56           0.0000         1.0000         57         0.0000         1.0000         57         0.0000         1.0000         57           0.0000         1.0000         58         0.0000         1.0000         58         0.0000         1.0000         58           0.0000										
0.0000         1.0000         50         0.0000         1.0000         50         0.0000         1.0000         50           0.0000         1.0000         51         0.0000         1.0000         51         0.0000         1.0000         51           0.0000         1.0000         52         0.0000         1.0000         52         0.0000         1.0000         52           0.0000         1.0000         53         0.0000         1.0000         53         0.0000         1.0000         53           0.0000         1.0000         54         0.0000         1.0000         55         0.0000         1.0000         55           0.0000         1.0000         55         0.0000         1.0000         55         0.0000         1.0000         56           0.0000         1.0000         56         0.0000         1.0000         57         0.0000         1.0000         57           0.0000         1.0000         58         0.0000         1.0000         58         0.0000         1.0000         58           0.0000         1.0000         59         0.0000         1.0000         59         0.0000         1.0000         59           0.0000										
0.0000         1.0000         51         0.0000         1.0000         51         0.0000         1.0000         51           0.0000         1.0000         52         0.0000         1.0000         52         0.0000         1.0000         52           0.0000         1.0000         53         0.0000         1.0000         53         0.0000         1.0000         53           0.0000         1.0000         54         0.0000         1.0000         54         0.0000         1.0000         54           0.0000         1.0000         55         0.0000         1.0000         55         0.0000         1.0000         55           0.0000         1.0000         56         0.0000         1.0000         56         0.0000         1.0000         57           0.0000         1.0000         57         0.0000         1.0000         57         0.0000         1.0000         58           0.0000         1.0000         58         0.0000         1.0000         58         0.0000         1.0000         59           0.0000         1.0000         60         0.0000         1.0000         61         0.0000         1.0000         60           0.0000										
0.0000         1.0000         52         0.0000         1.0000         52         0.0000         1.0000         52           0.0000         1.0000         53         0.0000         1.0000         53         0.0000         1.0000         53           0.0000         1.0000         54         0.0000         1.0000         54         0.0000         1.0000         54           0.0000         1.0000         55         0.0000         1.0000         55         0.0000         1.0000         55           0.0000         1.0000         56         0.0000         1.0000         56         0.0000         1.0000         56           0.0000         1.0000         57         0.0000         1.0000         57         0.0000         1.0000         57           0.0000         1.0000         58         0.0000         1.0000         58         0.0000         1.0000         58           0.0000         1.0000         59         0.0000         1.0000         59         0.0000         1.0000         59           0.0000         1.0000         61         0.0000         1.0000         61         0.0000         1.0000         61           0.0000										
0.0000         1.0000         54         0.0000         1.0000         54         0.0000         1.0000         54           0.0000         1.0000         55         0.0000         1.0000         55         0.0000         1.0000         55           0.0000         1.0000         56         0.0000         1.0000         56         0.0000         1.0000         56           0.0000         1.0000         57         0.0000         1.0000         56         0.0000         1.0000         57           0.0000         1.0000         58         0.0000         1.0000         58         0.0000         1.0000         58           0.0000         1.0000         59         0.0000         1.0000         59         0.0000         1.0000         59           0.0000         1.0000         60         0.0000         1.0000         60         0.0000         1.0000         60           0.0000         1.0000         61         0.0000         1.0000         61         0.0000         1.0000         62           0.0000         1.0000         63         0.0000         1.0000         63         0.0000         1.0000         63           0.0000	0.0000	1.0000	52	0.0000	1.0000	52		0.0000	1.0000	52
0.0000         1.0000         55         0.0000         1.0000         55           0.0000         1.0000         56         0.0000         1.0000         56         0.0000         1.0000         56           0.0000         1.0000         57         0.0000         1.0000         57         0.0000         1.0000         57           0.0000         1.0000         58         0.0000         1.0000         58         0.0000         1.0000         58           0.0000         1.0000         59         0.0000         1.0000         59         0.0000         1.0000         59           0.0000         1.0000         60         0.0000         1.0000         60         0.0000         1.0000         59           0.0000         1.0000         61         0.0000         1.0000         61         0.0000         60           0.0000         1.0000         62         0.0000         1.0000         62         0.0000         1.0000         62           0.0000         1.0000         63         0.0000         1.0000         63         0.0000         1.0000         63           0.0000         1.0000         64         0.0000         1.0000										
0.0000         1.0000         56         0.0000         1.0000         56         0.0000         1.0000         56           0.0000         1.0000         57         0.0000         1.0000         57         0.0000         1.0000         57           0.0000         1.0000         58         0.0000         1.0000         58         0.0000         1.0000         58           0.0000         1.0000         59         0.0000         1.0000         59         0.0000         1.0000         59           0.0000         1.0000         60         0.0000         1.0000         60         0.0000         1.0000         60           0.0000         1.0000         61         0.0000         1.0000         61         0.0000         1.0000         61           0.0000         1.0000         62         0.0000         1.0000         62         0.0000         1.0000         62           0.0000         1.0000         63         0.0000         1.0000         63         0.0000         1.0000         63           0.0000         1.0000         64         0.0000         1.0000         64         0.0000         1.0000         64										
0.0000         1.0000         57         0.0000         1.0000         57         0.0000         1.0000         57           0.0000         1.0000         58         0.0000         1.0000         58         0.0000         1.0000         58           0.0000         1.0000         59         0.0000         1.0000         59         0.0000         1.0000         59           0.0000         1.0000         60         0.0000         1.0000         60         0.0000         1.0000         60           0.0000         1.0000         61         0.0000         1.0000         61         0.0000         1.0000         61           0.0000         1.0000         62         0.0000         1.0000         62         0.0000         1.0000         62           0.0000         1.0000         63         0.0000         1.0000         63         0.0000         1.0000         63           0.0000         1.0000         64         0.0000         1.0000         64         0.0000         1.0000         64										
0.0000         1.0000         58         0.0000         1.0000         58         0.0000         1.0000         58           0.0000         1.0000         59         0.0000         1.0000         59         0.0000         1.0000         59           0.0000         1.0000         60         0.0000         1.0000         60         0.0000         1.0000         60           0.0000         1.0000         61         0.0000         1.0000         61         0.0000         1.0000         61           0.0000         1.0000         62         0.0000         1.0000         62         0.0000         1.0000         62           0.0000         1.0000         63         0.0000         1.0000         63         0.0000         1.0000         63           0.0000         1.0000         64         0.0000         1.0000         64         0.0000         1.0000         64										
0.0000         1.0000         59         0.0000         1.0000         59           0.0000         1.0000         60         0.0000         1.0000         60         0.0000         1.0000         60           0.0000         1.0000         61         0.0000         1.0000         61         0.0000         1.0000         61           0.0000         1.0000         62         0.0000         1.0000         62         0.0000         1.0000         62           0.0000         1.0000         63         0.0000         1.0000         63         0.0000         1.0000         63           0.0000         1.0000         64         0.0000         1.0000         64         0.0000         64										
0.0000         1.0000         60         0.0000         1.0000         60         0.0000         1.0000         60           0.0000         1.0000         61         0.0000         1.0000         61         0.0000         1.0000         61           0.0000         1.0000         62         0.0000         1.0000         62         0.0000         1.0000         62           0.0000         1.0000         63         0.0000         1.0000         63         0.0000         1.0000         63           0.0000         1.0000         64         0.0000         1.0000         64         0.0000         1.0000         64										
0.0000         1.0000         62         0.0000         1.0000         62         0.0000         1.0000         62           0.0000         1.0000         63         0.0000         1.0000         63         0.0000         1.0000         63           0.0000         1.0000         64         0.0000         1.0000         64         0.0000         1.0000         64									1.0000	
0.0000         1.0000         63         0.0000         1.0000         63         0.0000         1.0000         63           0.0000         1.0000         64         0.0000         1.0000         64         0.0000         1.0000         64										
0.0000 1.0000 64 0.0000 1.0000 64 0.0000 64										
0.0000 1.0000 05 0.0000 1.0000 05 0.0000 1.0000 05										
	0.0000	1.0000	00	0.0000	1.0000	00	ļ	0.0000		00

Capitol/Trade Zone		
NBL		
PM		
Existing Conditions		
Avg. Queue Per La	ne in Veh=	2.8
Percentile =	95%	6

Capitol/Trade Zon	e
NBL	
PM	
Background Cond	itions
Avg. Queue Per L	ane in Veh=
Percentile =	95%

3.1 6

Capitol/Trade Zon	e
NBL	
PM	
Background Plus	Project Conditions
Avg. Queue Per L	ane in Veh=
Percentile =	95%

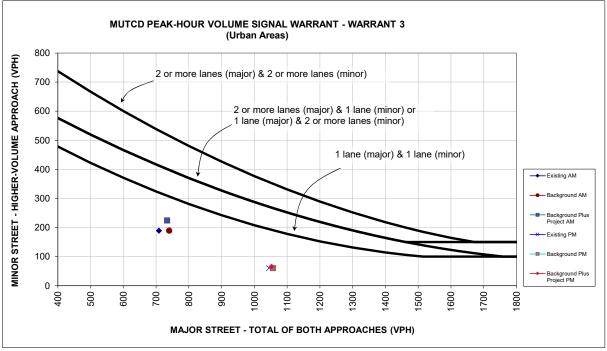
3.1 6

Γ	Individual	Cumulative	Number of Queued	Individual	Cumulative	Number of Queued	Individual	Cumulative	Number of Queued
	Probability	Probability	Vehicles	Probability	Probability	Vehicles	Probability	Probability	Vehicles
	0.0625	0.0625	0	0.0470	0.0470	0	0.0438	0.0438	0
	0.1732 0.2402	0.2357 0.4758	1 2	0.1437 0.2197	0.1907 0.4104	1 2	0.1369 0.2142	0.1807 0.3949	1 2
	0.2402	0.4758	2 3	0.2197	0.6343	2 3	0.2142	0.3949 0.6184	2 3
	0.1539	0.8518	4	0.1712	0.8055	4	0.1748	0.7932	4
	0.0854	0.9372	5	0.1047	0.9101	5	0.1094	0.9025	5
	0.0395	0.9767	6	0.0533	0.9635	6	0.0570	0.9596	6
	0.0156	0.9923	7	0.0233	0.9868	7	0.0255	0.9851	7
	0.0054	0.9977	8	0.0089	0.9957	8	0.0100	0.9950	8
	0.0017	0.9994	9	0.0030	0.9987	9	0.0035	0.9985	9
	0.0005 0.0001	0.9998 1.0000	10 11	0.0009 0.0003	0.9997 0.9999	10 11	0.0011 0.0003	0.9996 0.9999	10 11
	0.0000	1.0000	12	0.0001	1.0000	12	0.0003	1.0000	12
	0.0000	1.0000	13	0.0000	1.0000	13	0.0000	1.0000	13
	0.0000	1.0000	14	0.0000	1.0000	14	0.0000	1.0000	14
	0.0000	1.0000	15	0.0000	1.0000	15	0.0000	1.0000	15
	0.0000	1.0000	16	0.0000	1.0000	16	0.0000	1.0000	16
	0.0000	1.0000	17	0.0000	1.0000	17	0.0000	1.0000	17
	0.0000	1.0000	18	0.0000	1.0000	18	0.0000 0.0000	1.0000	18
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				 					AG E/11/2022

# Appendix G Signal Warrant Checks

### 1849 Fortune Drive and 2400 Ringwood Avenue

### 9 . Ringwood Avenue and Fortune Drive



Source: Figure 4C-3 of the Manual on Unifrom Traffic Control and Devices (MUTCD) from California Department of Transportation (Caltrans). \* 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

			roach ines 2 or More	Existing AM	Background AM	Background Plus Project AM
Major Street - Both Approaches	Fortune Drive	Х		709	740	734
Minor Street - Highest Approach	Ringwood Avenue	Х		189	189	224
Maximum warrant threshold for minor street volum	1e			320	306	308
Difference between warrant threshold & minor stre	eet volume			131	117	84
		Warra	int Met?	No	No	No

			roach ines 2 or More	Existing PM	Background PM	Background Plus Project PM
Major Street - Both Approaches	Fortune Drive	Х		1045	1057	1053
Minor Street - Highest Approach	Ringwood Avenue	Х		60	60	65
Maximum warrant threshold for minor street volum	1e			194	190	191
Difference between warrant threshold & minor stre	eet volume			134	130	126
		Warra	int Met?	No	No	No

## Appendix H TDM Plan

HEXAGON TRANSPORTATION CONSULTANTS, INC.

# **1849 Fortune Drive and 2400 Ringwood Avenue**

**Draft Transportation Demand Management (TDM) Plan** 

Prepared for: DayZen

ķ

November 9, 2022

### Hexagon Transportation Consultants, Inc.

Hexagon Office: 8070 Santa Teresa Boulevard, Suite 230 Gilroy, CA 95020 Hexagon Job Number: 22LD15 Phone: 408.846.7410

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# 1. Introduction

Transportation Demand Management (TDM) is a combination of services, incentives, facilities, and actions that reduce single–occupant vehicle (SOV) trips and resulting vehicle miles traveled (VMT) to help relieve traffic congestion, parking demand, and air pollution problems. The purpose of TDM is to (1) reduce the amount of trips and resulting VMT generated by new development; (2) promote more efficient utilization of existing transportation facilities and ensure that new developments are designed to maximize the potential for sustainable transportation usage; (3) reduce the parking demand generated by new development and allow for a reduction in parking supply; and (4) establish an ongoing monitoring and enforcement program to guarantee the desired trip and parking reductions are achieved.

This TDM plan has been prepared for the proposed development at 1849 Fortune Drive and 2400 Ringwood Avenue to satisfy the requirements outlined in Section 20.90.220 of the San Jose Code of Ordinances, and to qualify for a proposed 32 percent reduction in required off-street parking. This TDM Plan addresses all the requirements of the City's ordinance and includes TDM measures designed to reduce the proposed project's parking demand and trips by employees.

Additionally, the Transportation Analysis dated November 9, 2022 completed for the proposed project indicates that the project would result in an impact on the transportation system based on the City's VMT impact criteria. Per the completed Transportation Analysis, the project will be required to implement the following multi-modal facility improvements to reduce the identified significant VMT impact.

- Provide Pedestrian Network Improvements for Active Transportation and
- Provide Traffic Calming Measures

Additionally, the project proposes to implement the following Travel Demand Management (TDM) measure to reduce the project's VMT impact to less than significant levels.

• Telecommuting and Alternative Work Schedules

## **Project Description**

The proposed Trade Zone Boulevard Technology Park would be located at 1849 Fortune Drive and 2400 Ringwood Avenue in San Jose, California. The project site is currently occupied by an existing 88,000-s.f. office building located at 2400 Ringwood Avenue and a vacant 55,000-s.f. building located at 1849 Fortune Drive. The proposed project would demolish the two existing buildings and construct a



522,194-s.f. data center and 136,573 s.f. of manufacturing space. Parking for each of the buildings will be provided by a five-level 339-space parking garage. The entire site will be secured with a gate including each of the project access points.

Vehicular access to the parking garage will be provided via a right-in-only driveway and a right-out-only driveway along Trade Zone Boulevard. Two additional driveways – one along Ringwood Avenue and the other along Fortune Drive – would serve as entrance and exit for trucks only.

The project site location and the surrounding study area are shown on Figure 1. The project site plan is shown on Figure 2.

### Location and Proximity to Transit

The project site is located within the Berryessa/International Business Park (BIBP) planned growth area.

The VTA operates the light rail transit (LRT) line system that extends from south San Jose through downtown to the northern areas of San Jose, Santa Clara, Mountain View, Milpitas, and Sunnyvale. Service operates nearly 24 hours, every 20 minutes during much of the day. The Cropley LRT station is the closest station to the project site and is located just south of the Capitol Avenue and Cropley Avenue/Trade Zone Boulevard intersection, which is less than a one-mile walking distance from the project site. Chapter 2 describes the existing transit services in the study area.

### Parking

Based on the City's parking requirements, the project is required to provide 497 off-street vehicle parking spaces for the proposed data center and manufacturing uses, before any reductions. The proposed 339 vehicle parking spaces would be 158 spaces less than, or a reduction of 32 percent from the City's requirement of 497 parking spaces.

According to Section 20.90.220.A.1 of the San Jose Parking Code, a reduction in the required off-street vehicle parking spaces of up to 20 percent is automatically allowed if the provisions of Subsections a and b are met. Due to the project site being located within a planned growth area and providing the required number of bicycle parking spaces per City code, the project would conform to Subsections 20.90.220.A.1.a and b and would be granted a vehicle parking reduction of 20 percent. Since the project is requesting a reduction in required parking of greater than 20%, the project is required to implement a minimum of three TDM measures as described under Code 20.90.220.A.1, Subsections c and d, to obtain an additional 12% reduction allowed under Code 20.90.220.A.

The proposed TDM Plan includes the following measures to support the proposed reduction in parking:

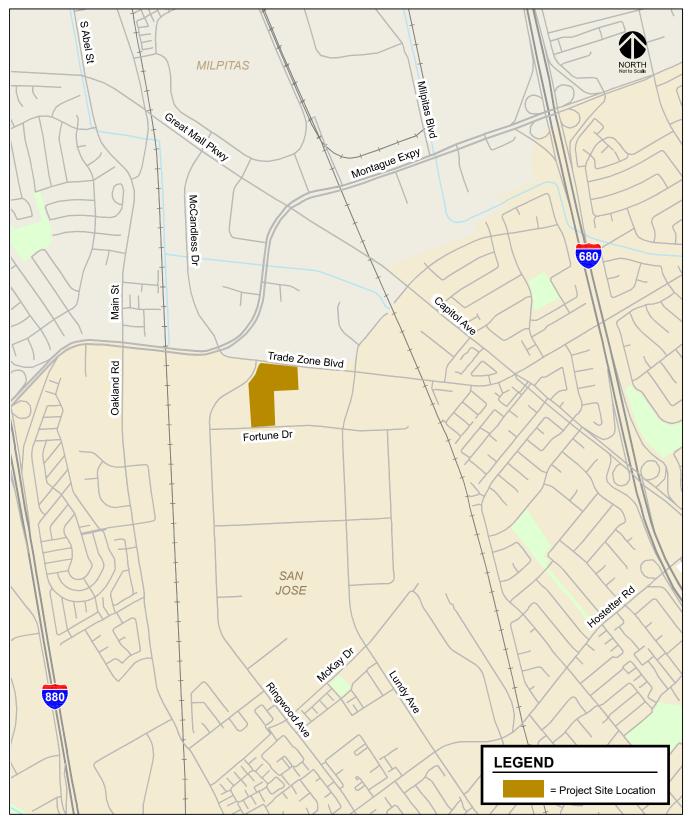
- 1. Transit Use Incentive Program (20.90.220.A.1.c.ii)
- 2. Telecommuting and Flexible Work Schedule (20.90.220.A.1.d.v) (VMT Mitigation)
- 3. On-Site Showers and Lockers (20.90.220.A.1.d.xii)

## **Report Organization**

The remainder of this report is divided into two chapters. Chapter 2 describes the transportation facilities and services in the vicinity of the project site. Chapter 3 describes the TDM measures that would be implemented for the proposed project, including the program for implementing and monitoring the TDM plan.

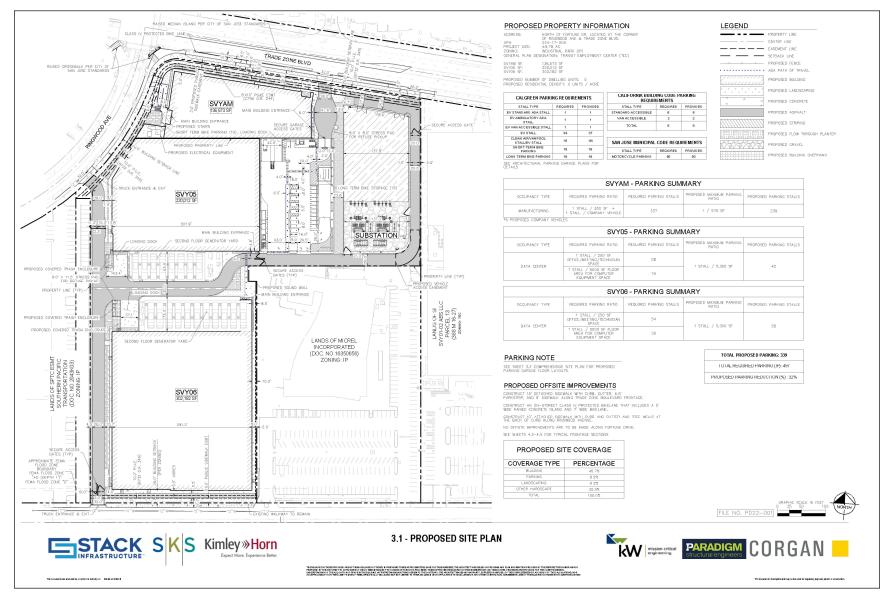


Figure 1 Project Site Location





### Figure 2 Project Site Plan



# 2. Existing Transportation Facilities and Services

Transportation facilities and services that support sustainable modes of transportation include commuter rail, buses and shuttle buses, bicycle facilities, and pedestrian facilities. This chapter describes the existing and future transit services, as well as bicycle and pedestrian facilities, in the vicinity of the project site.

## **Existing Bicycle and Pedestrian Facilities**

All new development projects in San Jose should encourage multi-modal travel, consistent with the goals of the City's General Plan. It is the goal of the General Plan that all development projects accommodate and encourage the use of non-automobile transportation modes to achieve San Jose's mobility goals and reduce vehicle trip generation and vehicle miles traveled. In addition, the adopted City Bike Master Plan establishes goals, policies, and actions to make bicycling a daily part of life in San Jose. The Master Plan includes designated bike lanes along many City streets, including designated bike corridors. In order to further the goals of the City, pedestrian and bicycle facilities should be encouraged with new development projects.

Note that the City's General Plan identifies both walk and bicycle commute mode split targets as 15 percent or more for the year 2040. This level of pedestrian and bicycle mode share is a reasonable goal for the project, particularly if LRT and bus services are utilized in combination with bicycle commuting. The existing bicycle, pedestrian, and transit facilities in the study area are described below.

### **Existing Pedestrian Facilities**

The overall network of sidewalks and crosswalks in the study area provides limited connectivity. There are gaps in the pedestrian routes between the project site and the nearest bus stops and LRT stations on Lundy Avenue, Montague Expressway, and Capitol Avenue. Sidewalks are missing along the following street sections between the project site and the nearest bus stops and LRT stations:

- Both sides of Fortune Drive, between Ringwood Avenue and approximately 650 feet east of Ringwood Avenue on the north side and between Ringwood Avenue and the eastern project's boundary on the south side.
- Westside of Lundy Avenue, between Trade Zone Boulevard and approximately 300 feet south of Trade Zone Boulevard.
- Both sides of Trade Zone Boulevard, between Lundy Avenue to approximately 900 feet east of Lundy Avenue



• Both sides of Ringwood Avenue, between Fortune Drive and Trade Zone Boulevard, except for approximately 300 feet on the east side of the street south of Trade Zone Boulevard

Crosswalks with pedestrian signal heads and push buttons are located at all signalized intersections in the study area. However, there are no crosswalks on the west leg of the Ringwood Avenue/Trade Zone Boulevard intersection and the west and south legs of the Trade Zone Boulevard/Montague Expressway intersection.

### **Existing Bicycle Facilities**

The existing bicycle facilities in the project vicinity include Class II bike lanes and Class III bike routes (see Figure 3). Bike lanes are lanes on roadways designated for use by bicycles with special lane markings, pavement legends, and signage. Bike routes are existing streets that accommodate bicycles but are not separate from the existing travel lanes. Bike routes are typically designated only with signage or with painted shared lane markings (Sharrows) on a road that indicate to motorists that bicyclists may use the full travel lane.

Class II striped bike lanes are present in the following street segments in the project vicinity:

- Trade Zone Boulevard between Montague Expressway and Capitol Avenue, with sharrows on westbound Trade Zone Boulevard between Montague Expressway and Ringwood Avenue
- Ringwood Avenue between Trade Zone Boulevard and Murphy Avenue
- Lundy Avenue between Trade Zone Boulevard and Berryessa Road
- McCandless Drive along its entire length
- Capitol Avenue/Great Mall Parkway along its entire length in the project vicinity

There are no designated striped bike lanes or shared bike routes on Fortune Drive. However, because Fortune Drive carries relatively low traffic volumes, it is conducive to bicycle travel and connects bicyclists to the existing bicycle facilities.

## **Existing Transit Service**

Existing transit services in the project vicinity are provided by VTA, ACE, and BART. In the project proximity, the VTA operates one light rail line (Orange Line), two local bus routes (Routes 20 and 44), and two frequent bus routes (Routes 60 and 77) and ACE operates the Violet Shuttle. Other bus routes serving the Milpitas Transit Center located approximately 0.5 miles north of the project site include Local Routes 47, 70, and 71, Frequent Route 66, and Limited-Stop Route 104. BART operates the Orange and Green Lines with services to the Milpitas Transit Center. The existing transit services in the project vicinity are shown in Figure 4. The headways during the commute periods for these transit services are summarized in Table 1.

### VTA Light Rail Service

The VTA operates the light rail transit (LRT) line system that extends from south San Jose through downtown to the northern areas of San Jose, Santa Clara, Mountain View, Milpitas, and Sunnyvale. Service operates nearly 24 hours, every 20 minutes during much of the day.

The Orange LRT line (Mountain View - Alum Rock) operates along Capitol Avenue in the project area. The Cropley LRT station is the closest station to the project site and is located just south of the Capitol Avenue and Cropley Avenue/Trade Zone Boulevard intersection, which is less than a one-mile walking distance from the project site. Sidewalks are present for the majority of the route, except for an approximately 800-foot segment along Trade Zone Boulevard between Lundy Avenue and just west of the BART track overcrossing, where pedestrians need to travel through parking lots of adjacent



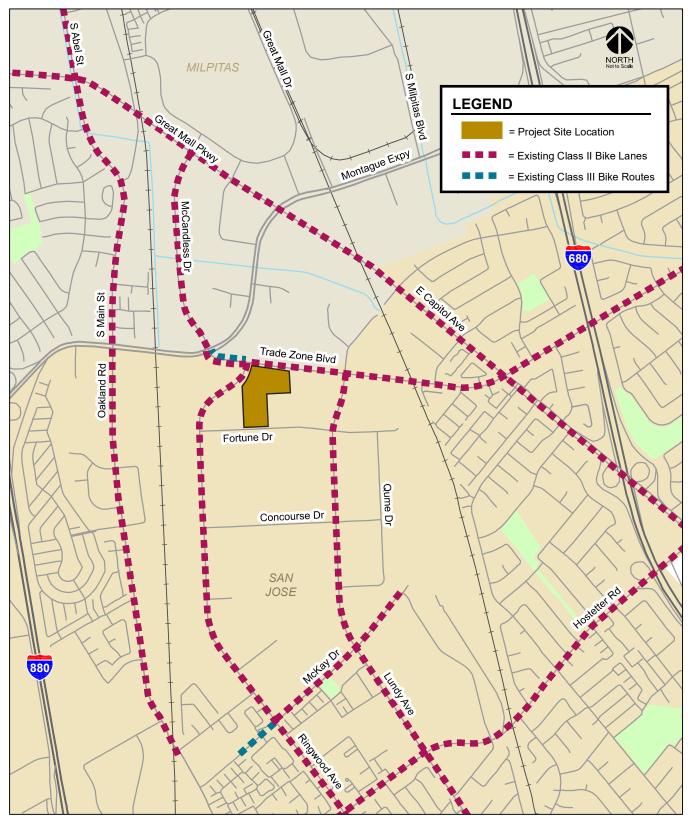
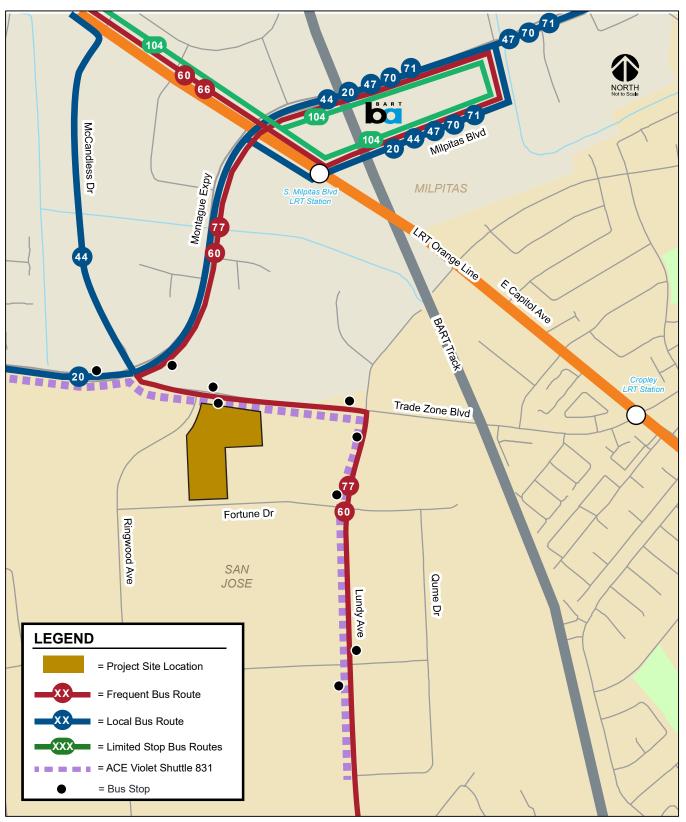


Figure 3 Existing Bicycle Facilities

### Figure 4 Existing Transit Facilities





#### Table 1 Transit Services

Route	Route Description	Closest Stop to Project Site	Weekday Hours of Operation <sup>1</sup>	Headway <sup>1</sup>
Local Bus Route 20	Milpitas BART - Sunnyvale Transit Center	Trade Zone Blvd/Montague Exp Intersection	6:30 AM - 8:00 PM	30 min
Local Bus Route 44	Milpitas BART - McCarthy Ranch via Tasman & Alder	Trade Zone Blvd/Montague Exp Intersection	6:00 AM - 8:00 PM	30 min
Local Bus Route 47	Milpitas BART - McCarthy Ranch via Park Victoria	Milpitas Transit Center	7:00 AM - 8:30 PM	30 min
Local Bus Route 70	Milpitas BART - Eastridge via Jackson	Milpitas Transit Center	5:00 AM - 12:00 AM	30 min
Local Bus Route 71	Milpitas BART - Capitol Station	Milpitas Transit Center	5:30 AM - 10:30 PM	30 min
Frequent Bus Route 60	Milpitas BART - Winchester Station via SJC Airport	Along project's frontage on Trade Zone Blvd	5:30 AM - 12:30 AM	15 min
Frequent Bus Route 66	North Milpitas - Kaiser San Jose	Milpitas Transit Center	5:00 AM - 12:00 AM	15 min
Frequent Bus Route 77	Milpitas BART - Eastridge, via King	Along project's frontage on Trade Zone Blvd	5:30 AM - 10:00 PM	15 min
Limited-Stop Bus Route 104	Milpitas BART - Stanford Research Park	Milpitas Transit Center	6:00 AM - 8:00 AM (westbound), 4:00 PM - 6:00 PM (eastbound)	45 min AM, 30 min PM
ACE Shuttle 831	Great America ACE Amtrak Station - VTA Light Rail	Along project's frontage on Trade Zone Blvd	6:00 AM - 10:00 AM (eastbound), 3:00 PM - 6:45 PM (westbound)	60 min
LRT - Orange Line	Mountain View - Alum Rock	Capitol Avenue/Cropley Avenue Intersection	5:30 AM - 1:00 AM	20 min
BART - Green Line	North San Jose - Daly City	Milpitas Transit Center	5:00 AM - 8:30 PM	15 min
BART - Orange Line	North San Jose - Richmond	Milpitas Transit Center	5:00 AM - 2:00 AM	15 min

properties. Striped bike lanes exist on both sides of Lundy Avenue, Trade Zone Boulevard, and Capitol Avenue between the site and the station.

### VTA Bus Service

The closest bus stop to the project site is located along the project's frontage on Trade Zone Boulevard and is served by the Frequent Bus Routes 60 and 77.

### Altamont Commuter Express (ACE) Violet Shuttle

The Altamont Commuter Express (ACE) Violet Shuttle operates from Santa Clara/Great America Station to East Milpitas during weekday peak hours. Eastbound service is provided during weekday mornings and westbound service is provided during weekday afternoons. The closest shuttle stop to the project site is located along the project's frontage on Trade Zone Boulevard.

### BART

BART operates the Orange and Green Lines with service to the Milpitas Transit Center located approximately 0.5 miles north of the project with approximately 15-minute headways during the commute periods.



# 3. VMT Impacts and Mitigation Measures

Per the VMT analysis completed for the project, the mitigation of the project's impacts to VMT will include both physical multi-modal improvements to the transportation system and implementation of TDM measures. Therefore, the project also will be required to complete annual TDM monitoring to ensure that its peak hour trip cap as established by the City is not exceeded. The project's impacts on VMT and required mitigation are discussed below.

## **Project VMT Impacts and Mitigation Measures**

Per Council Policy 5-1, the effects of the proposed project on VMT were evaluated in the Transportation Analysis dated November 9, 2022 using the methodology outlined in the City's *Transportation Analysis Handbook*. The results of the VMT evaluation, using the City's VMT Evaluation Tool, indicate that the project is located within a high-VMT area for industrial employment, and it is projected to generate VMT per industrial employee which would exceed the City's established VMT impact threshold. Therefore, the project would result in an impact on the transportation system based on the City's VMT impact criteria.

**<u>Project Impact</u>**: Since the VMT generated by the project (15.07 per employee) would exceed the impact threshold of 14.37 VMT per employee, the project would result in a significant transportation impact on VMT, and mitigation measures are required to reduce the VMT impact.

<u>Mitigation Measures</u>: Per the *Transportation Analysis Handbook*, projects located in areas where the existing VMT is above the established threshold are referred to as being in "high-VMT areas", and projects in high-VMT areas are required to include a set of VMT reduction measures that would reduce the project VMT to the greatest extent possible. Per the completed Transportation Analysis, the project will be required to implement the following multi-modal facility improvements to reduce the project's VMT impact:

• <u>Provide Pedestrian Network Improvements for Active Transportation:</u> Implement pedestrian improvements both on-site and in the surrounding area. Improving the pedestrian connections encourages people to walk instead of drive and reduces VMT. The project will be required to remove the pork-chop islands or provide raised crosswalks at the southwest and southeast corners of the Ringwood Avenue/Trade Zone Boulevard intersection. These improvements will require signal modification and the coordination between the Cities of San Jose and Milpitas and VTA. <u>and</u>



• <u>Provide Traffic Calming Measures:</u> Implement pedestrian/bicycle safety and traffic calming measures both on-site in the surrounding neighborhood. Providing traffic calming measures promotes walking and biking as an alternative to driving. The project will be required to construct a raised median island for the existing left-turn pockets along the westbound direction on Trade Zone Boulevard to improve pedestrian safety and access. These improvements will require coordination with the City of Milpitas and VTA.

The implementation of multi-modal facility improvements described above would reduce the VMT generated by the project to 14.47 per employee, which is still more than the established threshold of 14.37 VMT per employee. The project's VMT could be reduced to less than significant levels with the implementation of the following Travel Demand Management (TDM) measure:

• <u>Telecommuting and Alternative Work Schedules:</u> Encourage employees to telecommute from home when possible, or to shift work schedules such that travel occurs outside of peak congestion periods. This strategy reduces commute trips, thereby reducing VMT. At a minimum, the measure would require that 10% of employees work a 4/40 work week schedule (10-hour workdays for four days a week).

# 4. Compliance with the City Parking Code

This chapter describes the City of San Jose's parking requirements and allowable parking reductions as outlined in Section 20.90.220 of the San Jose Code of Ordinances. The proposed parking supply and the project's conformance with the City Parking Code are also described.

## City of San Jose Parking Code

According to Section 20.90.220.A.1 of the San Jose Parking Code, a reduction in the required off-street vehicle parking spaces of up to 20 percent is automatically allowed if the provisions of Subsections a and b are met. A reduction of up to 50 percent may be authorized if the project conforms to the requirements specified in Subsections a and b, and implements at least three TDM measures specified in Subsections c and d. Section 20.90.220.A.1 is outlined below.

### Section 20.90.220.A.1 – Reduction in Required Off-street Parking Spaces

#### A. Alternative transportation.

- 1. A reduction in the required off-street vehicle parking spaces of up to fifty percent may be authorized with a development permit or a development exception if no development permit is required, for structures or uses that conform to all of the following and implement a total of at least three transportation demand management (TDM) measures as specified in the following provisions:
  - a. The structure or use is located within two thousand feet of a proposed or an existing rail station or bus rapid transit station, or an area designated as a Neighborhood Business District, or as an Urban Village, or as an area subject to an area development policy in the city's general plan or the use is listed in Section 20.90.220G.; and
  - b. The structure or use provides bicycle parking spaces in conformance with the requirements of Table 20-90.
  - c. For any reduction in the required off-street parking spaces that is more than twenty percent, the project shall be required to implement a transportation demand management (TDM) program that contains but is not limited to at least one of the following measures:
    - *i.* Implement a carpool/vanpool or car-share program, e.g., carpool ridematching for employees, assistance with vanpool formation, provision of vanpool or car-share vehicles, etc. and assign car pool, van pool and car-



share parking at the most desirable onsite locations at the ratio set forth in the development permit or development exception considering type of use; or

- ii. Develop a transit use incentive program for employees and tenants, such as on-site distribution of passes or subsidized transit passes for local transit system (participation in the region-wide Clipper Card or VTA EcoPass system will satisfy this requirement).
- d. In addition to the requirements above in Section 20.90.220.A.1.c. for any reduction in the required off-street parking spaces that is more than twenty percent, the project shall be required to implement a transportation demand management (TDM) program that contains but is not limited to at least two of the following measures:
  - i. Implement a carpool/vanpool or car-share program, e.g., carpool ridematching for employees, assistance with vanpool formation, provision of vanpool or car-share vehicles, etc. and assign car pool, van pool and carshare parking at the most desirable on-site locations; or
  - *ii.* Develop a transit use incentive program for employees, such as on-site distribution of passes or subsidized transit passes for local transit system (participation in the region-wide Clipper Card or VTA EcoPass system will satisfy this requirement); or
  - *iii.* Provide preferential parking with charging facility for electric or alternativelyfueled vehicles; or
  - iv. Provide a guaranteed ride home program; or
  - v. Implement telecommuting and flexible work schedules; or
  - vi. Implement parking cash-out program for employees (non-driving employees receive transportation allowance equivalent to the value of subsidized parking); or
  - vii. Implement public information elements such as designation of an on-site TDM manager and education of employees regarding alternative transportation options; or
  - viii. Make available transportation during the day for emergency use by employees who commute on alternate transportation. (This service may be provided by access to company vehicles for private errands during the workday and/or combined with contractual or pre-paid use of taxicabs, shuttles, or other privately provided transportation); or
  - ix. Provide shuttle access to Caltrain stations; or
  - x. Provide or contract for on-site or nearby child-care services; or
  - xi. Incorporate on-site support services (food service, ATM, drycleaner, gymnasium, etc. where permitted in zoning districts); or
  - xii. Provide on-site showers and lockers; or
  - xiii. Provide a bicycle-share program or free use of bicycles on-site that is available to all tenants of the site; or
  - xiv. Unbundled parking; and
- e. For any project that requires a TDM program:

- *i.* The decision maker for the project application shall first find in addition to other required findings that the project applicant has demonstrated that it can maintain the TDM program for the life of the project, and it is reasonably certain that the parking shall continue to be provided and maintained at the same location for the services of the building or use for which such parking is required, during the life of the building or use; and
- *ii.* The decision maker for the project application also shall first find that the project applicant will provide replacement parking either on-site or off-site within reasonable walking distance for the parking required if the project fails to maintain a TDM program.

## **Compliance with the City Parking Code**

The following sections describe how the project would comply with the City Parking Code.

### Vehicle Parking Requirement

The City of San Jose Zoning Code (Section 20.90.060) states that the proposed data center use is required to provide one off-street parking space per 250 s.f. of floor area for office space and one off-street parking space per 5,000 s.f. of floor area devoted to data center use. Additionally, the proposed manufacturing use is required to provide one off-street parking space per 350 s.f. of floor area and one off-street parking space per company vehicle. As shown in Table 1, the project is required to provide a total of 497 parking spaces based on the City's parking requirement. The project is proposing to provide a total of 339 parking spaces on-site, which would be 158 spaces less than, or a reduction of 32%, the City's requirement of 497 parking spaces.

#### Table 1 Required Parking

Total (s.f.)								
	Proposed	Gross Bldg.		Data		City's Parking	Parking	Spaces
Building	Use	sf.	Office /a/	Hall /a/	Manufacturing /b/	Rate	Required	Proposed
SVYAM	Manufacturing	136,573			116,087	/c/	337	239
SVY05	Data Center	220,012	14,489	94,241		/d/	77	42
SVY06	Data Center	302,182	13,475	141,810		/d/	83	58
	Total	658,767	27,964	236,051	116,087	Total =	497	339

#### Notes

/a/ Space devoted to computer equipment space (data hall), office space, and the number of company vehicles were provided by the applicant.

/b/ According to the City's Zoning Code, "floor area" is defined as 85 percent of the "total gross floor area" of the building.

/c/ 1 space per 350 s.f. of floor area + 1 space per company vehicle

/d/ 1 space per 250 s.f. of office/meeting/technician space + 1 space per 5,000 s.f. of floor area devoted to computer equipment space

### **Reduction Due to Location near Transit and Bicycle Parking**

As stated under Section 20.90.220.A.1, Subsections a and b, a 20 percent reduction in required offstreet vehicle parking spaces is allowed for projects that meet the City's bicycle parking requirements and are located within a planned growth area. The project will meet these requirements as described below:

#### Location and Proximity to Transit (Subsection A)

The project site is located within the Berryessa/International Business Park (BIBP) planned growth area. Therefore, the project would conform to Subsection 20.90.220.A.1.a.



#### **Bicycle Parking Requirement**

According to the City's Bicycle Parking Standards (Chapter 20.90, Table 20-190), the project is required to provide one bicycle parking space per 5,000 s.f. of floor area of office or manufacturing space and one bicycle parking space per 50,000 s.f. of floor area devoted to computer equipment space.

Based on the City's bicycle parking requirements and the total gross floor areas as calculated above in the vehicle parking section for each use, the project is required to provide 5, 6, and 23 bicycle parking spaces for the proposed data center, office, and manufacturing space, respectively, for a total of 34 bicycle parking spaces. Of the required bicycle parking, City standards require that at least 80 percent be short-term bicycle spaces and at most 20 percent be secured long-term bicycle spaces. This equates to 27 short-term bicycle parking spaces and 7 long-term bicycle parking spaces.

The project proposes a total of 38 bicycle parking spaces, consisting of 19 long-term spaces within the parking garage and 19 short-term spaces at the building entrance along Ringwood Avenue. Therefore, the proposed bicycle parking spaces will exceed the City's bicycle parking requirements and encourage the use of non-auto modes of travel and minimize the demand for on-site parking described above. However, 8 of the 19 long-term bicycle parking spaces will need to be converted to short-term bicycle parking spaces to meet the City's requirements of 27 short-term bicycle parking spaces.

Due to the project site being located within a planned growth area and assuming the required number of bicycle parking spaces per City code would be provided, the project would conform to Subsections 20.90.220.A.1.a and b and would be granted a vehicle parking reduction of 20 percent.

With the 20% reduction discussed above, the project would still require an additional 12% reduction in on-site parking spaces. Since the project is requesting a reduction in required parking of greater than 20%, the project also would be required to implement a minimum of three TDM measures as described under Code 20.90.220.A.1, Subsections c and d, to obtain the maximum 50% reduction allowed under Code 20.90.220.A. The project's proposed TDM measures are described in the following chapter.

# 5. Recommended TDM Measures

This chapter describes TDM measures recommended for the proposed project, including services that promote sustainable modes of transportation. The specific TDM measures that are recommended for the project are described below and are based on the required VMT mitigation and parking reduction measures specified in Subsections 20.90.220.A.1.c and d of the San Jose Code of Ordinances, which will achieve a 32 percent parking reduction with implementation of a comprehensive TDM plan. Additionally, the project needs to ensure that the TDM plan will be maintained for the life of the project, which is in compliance with Subsection 20.90.220.A.1.e.

It should be noted that a tenant(s) for the development have yet to be identified. The tenant(s) occupying the proposed facility (to be determined later) could propose and maintain additional TDM measures. Therefore, the project developer will work with the City to communicate and maintain additional TDM measures deemed appropriate for the proposed project.

## **Proposed TDM Measures**

### Transit Use Incentive Program (20.90.220.A.1.c.ii)

The future tenant(s) will develop a transit use incentive program for employees. Transit subsidies are an extremely effective means of encouraging workers to use transit rather than drive. There are a number of ways to structure a financial incentive for transit usage. Employers can cover a portion or the total monthly cost of transit for those employees who take transit through a pre-tax benefit, or purchase transit passes themselves and distribute them to employees, or offer a universal transit pass program.

Universal transit pass programs are different from financial incentives in that an employer purchases a pass for all employees, regardless of whether they currently ride transit or not. These passes typically provide unlimited transit rides on local or regional transit providers for a low monthly fee; a fee that is lower than the individual cost to purchase a pass as a bulk discount is given. Such programs are a more cost-effective option for employers with regards to reducing vehicle trips and parking demand as compared to purchasing individual passes.

One option that can be pursued for this project is providing one free annual VTA SmartPass per employee. The SmartPass is loaded onto a Clipper card and will allow for unlimited rides on VTA-operated buses (with the exception of Express routes) and light rail services. The VTA SmartPass is deeply discounted below the standard fares, making it an attractive low-cost benefit to employers.



### Telecommuting and Flexible Work Schedule (Subsection 20.90.220.A.1.d.v)

The project will include high-speed internet connections and provide flexible work schedules for employees to facilitate telecommunicating. Telecommunicating is an effective TDM strategy the enables employees to work from home and thereby reduce the number of commute trips to and from the project site. Employees can use on-line meeting services to work remotely from home reducing vehicle trips. Flexible work schedules for employees also is a required mitigation measure for the project's VMT impacts.

### On-Site Showers and Lockers (Subsection 20.90.220.A.1.d.xii)

The project will include on-site shower facilities with changing rooms and lockers to serve all employees.

Showers and changing facilities can encourage employees to move more and incorporate fitness into their daily routines. Providing showers enables active commuters to arrive early and prepare for the day without hygienic concerns. This approach is consistent with the goals of the City's General Plan, which aim to encourage the use of non-automobile transportation modes to achieve San Jose's mobility goals and reduce vehicle trip generation and vehicle miles traveled.



## **Summary of TDM Measures**

The proposed TDM Plan includes the following measures, however additional measures could be implemented by a prospective tenant:

- 1. Transit Use Incentive Program (20.90.220.A.1.c.ii)
- 2. Telecommuting and Flexible Work Schedule (20.90.220.A.1.d.v) (VMT Mitigation)
- 3. On-Site Showers and Lockers (20.90.220.A.1.d.xii)

# 6. TDM Implementation and Monitoring

The primary purpose of the TDM plan is to reduce the VMT generated by the project and parking demand by up to 32 percent. Per Section 20.90.220 of the San Jose Code of Ordinances, monitoring will be necessary to ensure that the TDM measures are effective and continue to be successfully implemented.

## Implementation

The project applicant must submit this TDM Plan to the City of San Jose and will be responsible for ensuring that the TDM elements are incorporated into the project. After the development is constructed and occupied, the project applicant needs to identify a TDM coordinator. It is assumed that the property manager for the project would be responsible for implementing the ongoing TDM measures. If the TDM coordinator changes for any reason, the City and tenants should be notified of the name and contact information of the new designated TDM coordinator.

## **Monitoring and Reporting**

The TDM plan will need to be re-evaluated annually for the life of the project. The designated TDM coordinator will consult with City staff to ensure the monitoring and reporting meets the City's expectations. Monitoring will include the following components:

- Annual Vehicle Trip Generation Counts
- Annual Vehicle Parking Counts
- Annual Mode Share Survey
- Annual Monitoring Report

### **Annual Vehicle Trip Generation Counts**

Annual trip generation counts must demonstrate the vehicle trips generated by the project are within 10% of an established peak hour trip cap and must be prepared by a traffic engineer. The peak hour trip cap will be based on the project's estimated gross project trips consisting of 138 gross AM peak-hour trips and 136 gross PM peak-hour trips. The gross project trips are identified in the project's Transportation Analysis dated November 9, 2022. If the counts show the project trip generation is



higher than expected, then the TDM Plan may need to be altered or enhanced. If the project is not in conformance with the peak hour trip cap, the project may add additional TDM measures to lower the project's trip generation and meet the trip cap.

### **Annual Vehicle Parking Counts**

Annual parking counts should be conducted by a third party on a typical weekday (Tuesday, Wednesday, or Thursday). Counts of the number of parked vehicles and vacant spaces should be conducted between 10:00 AM and 3:00 PM. The goal of the TDM Plan is to avoid parking spillover. Thus, if the counts show that parking spaces are less than fully occupied (i.e., counts show one or more vacant spaces), it can be assumed that all parking demand is being accommodated on site, and the TDM Plan is effective. If parking spaces are 100 percent occupied, then spillover is likely occurring and the TDM Plan may need to be enhanced with additional TDM measures to ensure that the parking demand is being addressed by the project without the burden being placed on outside entities.

### Annual Mode Share Survey

The annual survey would provide qualitative data regarding employee perceptions of the alternative transportation programs and perceptions of the obstacles to using an alternative mode of transportation. The annual survey would also provide quantitative data regarding the number of employees who utilize alternative modes of transportation (e.g., bike-to-work) to commute to work, including the frequency of use. The mode share survey results would measure the relative effectiveness of individual program components and facilitate the design of possible program enhancements.

### Annual Monitoring Report

The property manager should submit annual reports to the City of San Jose for three years, and then upon request of the Zoning Administrator for the life of the project with the following information:

- Findings of the trip generation and vehicle parking counts and mode share surveys, including the reduction in parking demand.
- Effectiveness of individual program components from the annual mode share survey.
- A description of the TDM programs and services that were offered to tenants in the preceding year, with an explanation of any changes or new programs offered or planned.