2256 Junction Avenue Development – DD01

Transportation Analysis

H200-39
PRE20-106

January 2021

Prepared for

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Prepared by

Kimley»Horn
10 South Almaden Boulevard, Suite 1250
San Jose, CA 95113

Table of Contents

Tables

Figures

EXECUTIVE SUMMARY

This transportation study evaluates transportation operations and site circulation conditions for the proposed 2256 Junction Avenue project in the City of San José. The project site is in the North San Jose area located in the northeast corner of Junction Avenue and Dado Street. The project proposes to repurpose the existing warehouse into a 141,510-square foot "Delivery Station" fulfillment center warehouse. This facility specializes in last mile delivery of customer orders to help speed-up deliveries for customers in the local area. The project will employ both full time and part time workers on-site consisting of sortation associates inside the warehouse, delivery service partners who transport/deliver customer orders, and site managers.

The project site will be accessed by the existing driveways on-site with two driveways along Junction Avenue and two driveways along Dado Street. One driveway along Dado Street provides exclusive access for inbound semi-trailer truck shipments and the other driveway along Dado Street provides access for delivery van loading and deliveries. The project will provide up to 552 standard vehicular parking spaces to accommodate tenant employees, delivery vans, and delivery service partners throughout the 24-hour operations.

The potential adverse effects of the project were evaluated in accordance with the standards and methodologies set forth by the City of San José. Based on the City of San Jose's Transportation Analysis Policy (Policy 5-1) and the Transportation Analysis Handbook 2018, the transportation analysis report for the project includes a CEQA transportation analysis (TA) and a local transportation analysis (LTA). The CEQA transportation analysis comprises an evaluation of Vehicle Miles Traveled (VMT) which is defined in Chapter 1. The LTA supplements the CEQA transportation analysis by identifying transportation operational issues via an evaluation of weekday AM and PM peak-hour traffic conditions for seven (7) study intersections near the project site. The LTA also includes an analysis of site access, on-site circulation, parking, vehicle queuing, and effects to transit, bicycle, and pedestrian access.

CEQA Transportation Analysis

Project Vehicle Miles Traveled (VMT) Impacts and Mitigation Measures

The project consists of industrial land use and does not meet any screening criteria for VMT analysis exemption as a small infill project of 30,000 square-feet of total gross floor area or less per City guidelines. The proposed project was evaluated in the VMT tool assuming development of 141,510 square-feet of industrial use.

The City's VMT per employee threshold for industrial land uses is 14.37. For the surrounding land use area, the existing VMT is 16.08. The proposed project is anticipated to generate a VMT per employee of 15.85. The evaluation tool estimates that the project would exceed the City's industrial VMT per employee threshold and would trigger a VMT impact.

Since the project VMT exceeds the industrial thresholds of significance, the project will need to mitigate its CEQA transportation impact by implementing a variety of City approved VMT reduction strategies such as alternative transportation options and transportation demand management (TDM) measures. The applicant is proposing to implement VMT reduction strategies, and with these measures, the project could achieve a VMT per employee of 14.37 which is below the City threshold. Final implementation of

the proposed VMT reduction strategies and TDM plan would need to be coordinated between the project applicant and the City.

Local Transportation Analysis

Project Trip Generation

To provide a conservative and representative analysis, trip generation for the proposed delivery station warehouse was determined from site operation data provided by the project applicant. These project trips were verified with trip generation data from the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition*. The project trips provided by the project applicant were found to be more conservative than ITE rates and representative of the intended use, and therefore were used to determine net peak hour vehicle trips.

Per the 2018 *Transportation Analysis Handbook*, trip generation reduction credits were applied to the project including location-based mode-share, potential VMT reduction strategies, and existing land uses. Development of the proposed project with all applicable trip reductions and credits is anticipated to generate a net total of 291 additional daily trips, 0 AM, and 30 PM peak hour trips to the roadway network. Baseline vehicle trips for the proposed project (excluding trip adjustments) are anticipated to generate a gross total of 700 daily trips, 3 AM peak hour trips, and 64 PM peak hour vehicle trips.

Intersection Traffic Operations

Due to the COVID-19 situation, traffic counts for Year 2020 was determined from historic count data. Weekday AM and PM peak hour intersection turning movement volumes for the existing study intersections were obtained from City of San Jose 2016 traffic data and applying a 1% compound growth rate. Traffic conditions for each study intersection was analyzed during the 7:00 – 9:00 AM and 4:00 – 6:00 PM peak hours of traffic which represent the most heavily congested traffic on a typical weekday. The study intersections were assessed under Existing, Background and Project scenarios. City of San José and Valley Transportation Authority Congestion Management Program intersection level of service standards and significance thresholds were used to determine adverse effects caused by the project. The project is not anticipated to generate an adverse effect to the study intersections during the Background Plus Project scenario.

Based on the North San Jose Traffic Impact Fee Plan, the project would be required to contribute traffic fees based on net generated project PM peak hour trips. The project would generate up to 30 net PM trips with a project size of 141,510 square-feet of warehouse and would be responsible for paying the corresponding traffic fee for an industrial land use. The final traffic fee would be coordinated between the project applicant and the City.

Vehicle Site Access and Circulation

The 2256 Junction project provides on-site parking spaces for commercial trucks and employee staff, and the at-grade parking lot is accessed by two driveways along Junction Avenue and two driveways along Dado Street. Project driveways for truck access are at least 32-feet wide while driveways for passenger vehicle and van access are at least 26-feet wide. The proposed driveway locations optimize sight distance and spacing for the proposed site plan. Passenger vehicles, delivery vans, trucks, refuse, and emergency vehicles are able to circulate within the project site without conflict.

Pedestrian, Bicycle, and Transit Site Access

The project site plan does not plan to provide transportation improvements to the existing sidewalk, bicycle, and transit facilities along the project frontages on Junction Boulevard and Dado Street. Due to the function and operational characteristics of the proposed warehouse use, the 2256 Junction project is not anticipated to add substantial project trips to the existing pedestrian, bicycle, or transit facilities in the area. Therefore, the project would not create an adverse effect to the existing pedestrian, bicycle, or transit facility operations.

On-Site Vehicle and Bicycle Parking

Per the City's parking standard, the project site is anticipated to provide sufficient on-site vehicle and bicycle to meet the City's minimum parking requirement.

Neighborhood Interface

The project's on-site parking would satisfy the City's vehicle parking standard, and the project is not anticipated to create an adverse effect to the existing parking condition in the surrounding area. The project is not anticipated to create an adverse effect to the existing pedestrian and bicycle facilities in the surrounding area.

1 INTRODUCTION

1.1 Project Description

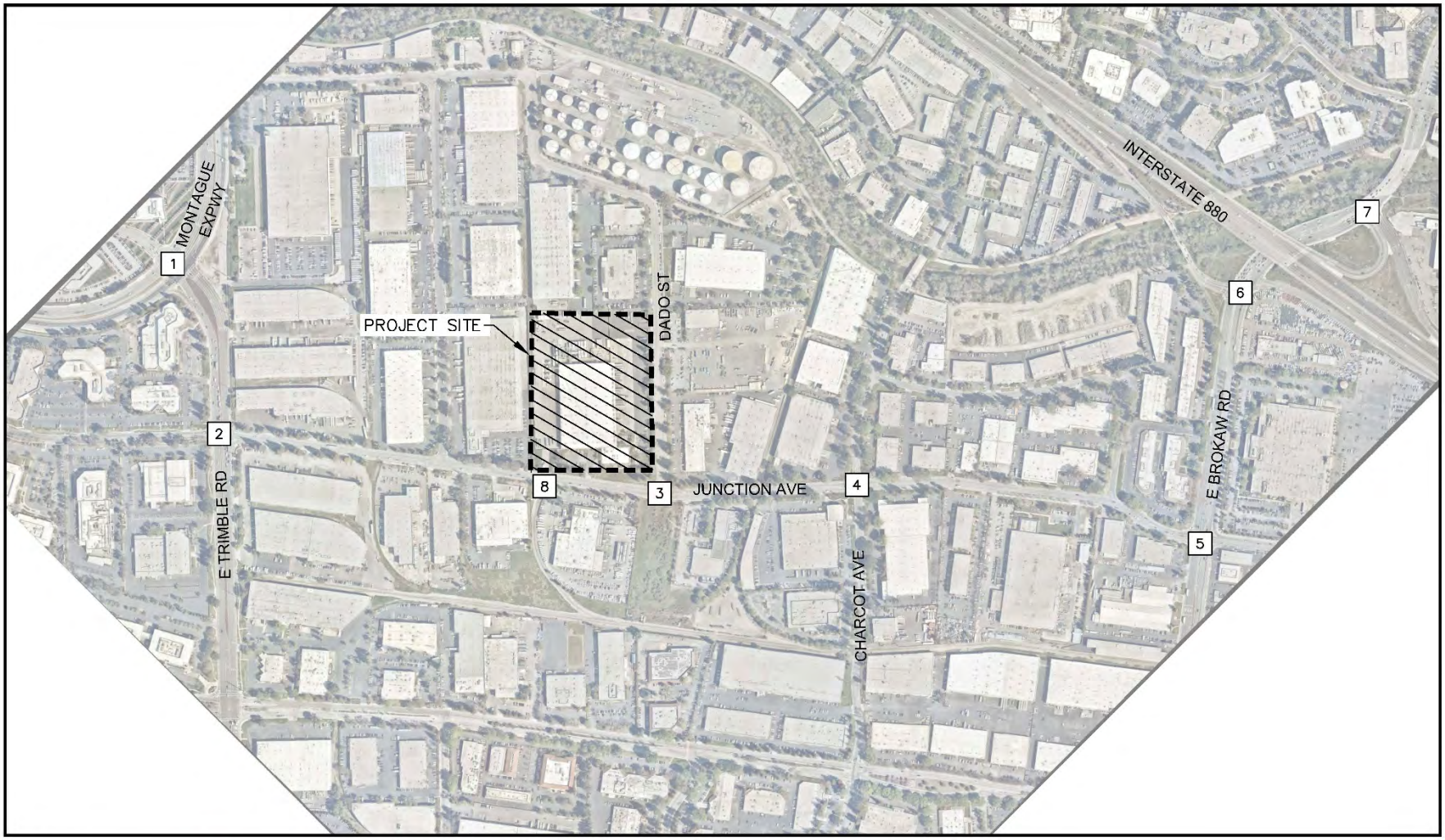
This transportation study evaluates transportation operations and site circulation conditions for the proposed 2256 Junction Avenue project in the City of San José. The project site is in the North San Jose area located in the northeast corner of Junction Avenue and Dado Street. The project proposes to repurpose the existing warehouse into a 141,510-square foot "Delivery Station" fulfillment center warehouse. This facility specializes in last mile delivery of customer orders to help speed-up deliveries for customers in the local area. The project will employ both full time and part time workers on-site consisting of sortation associates inside the warehouse, delivery service partners who transport/deliver customer orders, and site managers.

The project site will be accessed by the existing driveways on-site with two driveways along Junction Avenue and two driveways along Dado Street. One driveway along Dado Street provides exclusive access for inbound semi-trailer truck shipments and the other driveway along Dado Street provides access for delivery van loading and deliveries. The project will provide up to 552 standard vehicular parking spaces to accommodate tenant employees, delivery vans, and delivery service partners throughout the 24-hour operations.

An overview map showing the project site location is shown in **Figure 1**. Kimley-Horn was retained by Duke Reality to provide a traffic operations analysis for the proposed project based on the scope of work approved by the City of San José.

Based on the recently adopted Transportation Analysis Council Policy 5-1, the project will require preparation of a comprehensive Transportation Analysis (TA) per the 2018 San Jose Transportation Analysis Handbook. This TA report evaluates several project and transportation criteria including intersection operations, project trip generation, trip distribution, site access and circulation, sight distance, vehicle queuing, parking, bicycle, pedestrian, and transit facilities, and vehicle miles traveled (VMT).

Figure 1: Project Site Map



1.2 CEQA Transportation Analysis Scope

The California Environmental Quality Act (CEQA) was enacted in 1970 to ensure environmental protection through review of discretionary actions approved by all public agencies. For the City of San Jose, a CEQA transportation analysis requires an evaluation of a project's potential impacts related to VMT and other significance criteria per CEQA and Senate Bill 743.

VMT is defined as the total miles of travel by a personal motorized vehicle 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 the appropriate thresholds of significance based on the project location and type of development. For 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. For an office or industrial project, the project's VMT is divided by the number of employees to determine the VMT per employee. The project's VMT is then compared to the VMT thresholds of significance established based on the average area VMT. A project located in a downtown area is expected to have a lower project VMT than the average area VMT, while a project located in a suburban area is expected to have a higher project VMT than the average area VMT.

Screening Criteria

The Transportation Analysis Handbook 2018 includes screening criteria for projects that are expected to result in less-than-significant VMT impacts. Projects that meet the screening criteria do not require a CEQA transportation analysis but may be required to provide a Local Transportation Analysis (LTA).

The proposed project, which is a high cube warehouse development, would not meet the industrial screening criteria set forth in the City's Transportation Analysis Handbook. The City of San Jose VMT Evaluation Tool was used to estimate VMT impacts for the project.

VMT Analysis Methodology

The City has developed the San Jose VMT Evaluation Tool to streamline the analysis for residential, office, and industrial projects with local traffic to determine whether a project would result in CEQA transportation impacts related to VMT. The City's Travel Demand Model can also be used to determine project VMT for non-residential or non-office projects, very large projects, or projects that can potentially shift travel patterns.

For this project, the CEQA transportation analysis was assessed using the San Jose VMT Evaluation Tool to determine the potential VMT impact from the project's description, location, land use attributes.

The project's VMT was compared to the City's existing level VMT and VMT thresholds of significance as established in Council Policy 5.1. Project VMT that exceeds the thresholds of significance will need to mitigate its CEQA transportation impact by implementing various VMT reduction strategies described below.

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.

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.

City of San Jose VMT Threshold

The thresholds of significance for 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. **Table 1** summarizes the City VMT thresholds of significance for development projects. For residential developments, project generated VMT that exceeds the existing citywide average VMT per capita minus fifteen (15) percent will create a significant adverse impact. For office developments, project generated VMT that exceeds the existing regional average VMT per employee minus fifteen (15) percent will also create a significant adverse impact.

Figure 2 and **Figure 3** shows San Jose heat maps identifying existing level VMT per capita for residential uses and VMT per employee for office and industrial uses in the city. Developments in green-colored areas are estimated to have VMT levels below the City's threshold of significance while orange and pink-colored areas are estimated to have VMT levels above the threshold of significance.

Table 1: City of San Jose VMT Thresholds of Significance

Project Type	Significance Criteria	Current VMT Level	VMT Threshold
Residential Uses	Project VMT per capita exceeds existing citywide average VMT per capita minus 15 percent, or 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 most appropriate type(s) as determined by Public Works Director.	Appropriate levels listed above	Appripriate 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	Appripriate thresholds listed above
Change of Use / 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	Appripriate 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	Appripriate thresholds listed above
Notes:			
VMT thresholds based on City of San Jose, 2018 Transportation Analysis Handbook, Table 2.			

Figure 2: VMT Per Capita Heat Map for Residential Uses

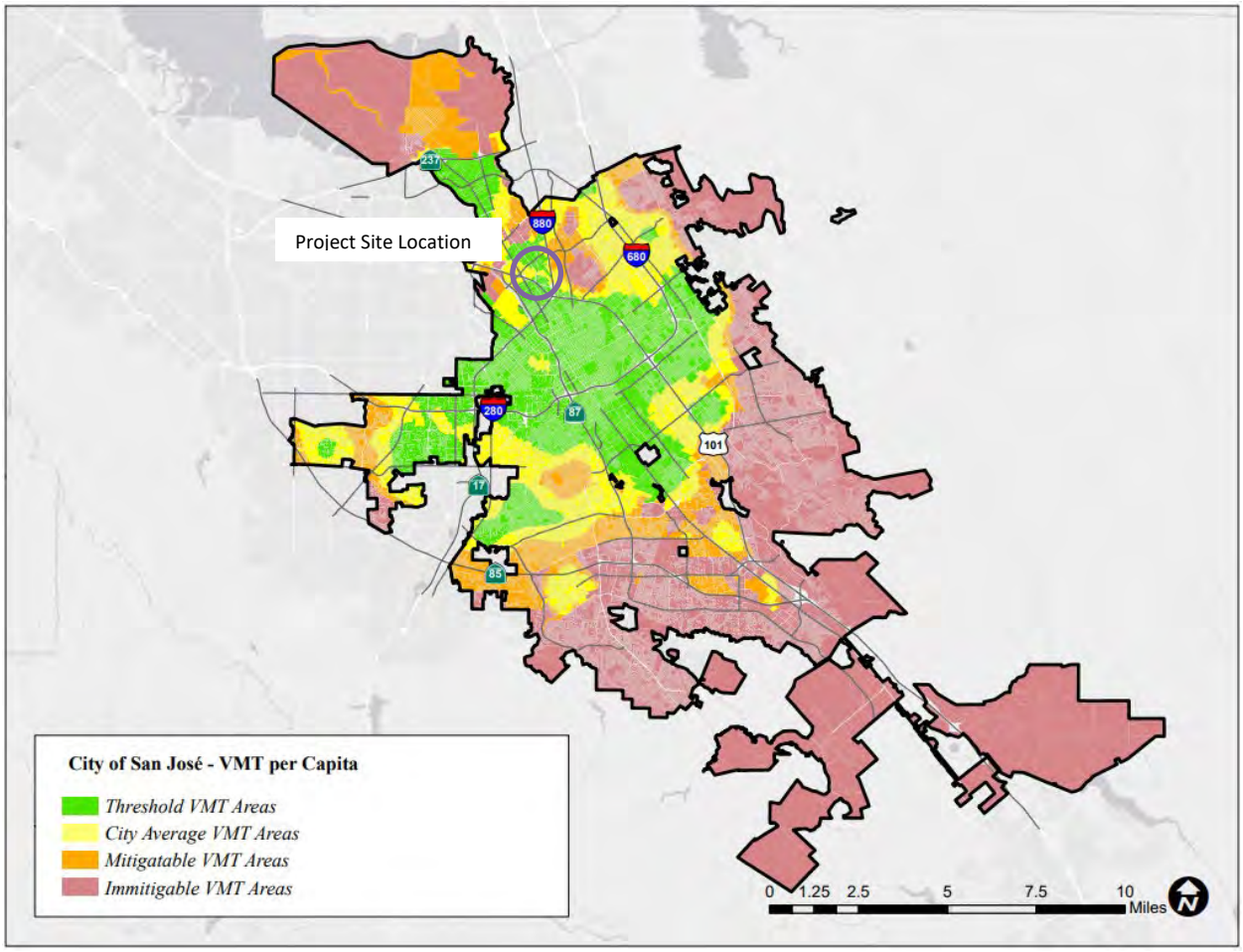
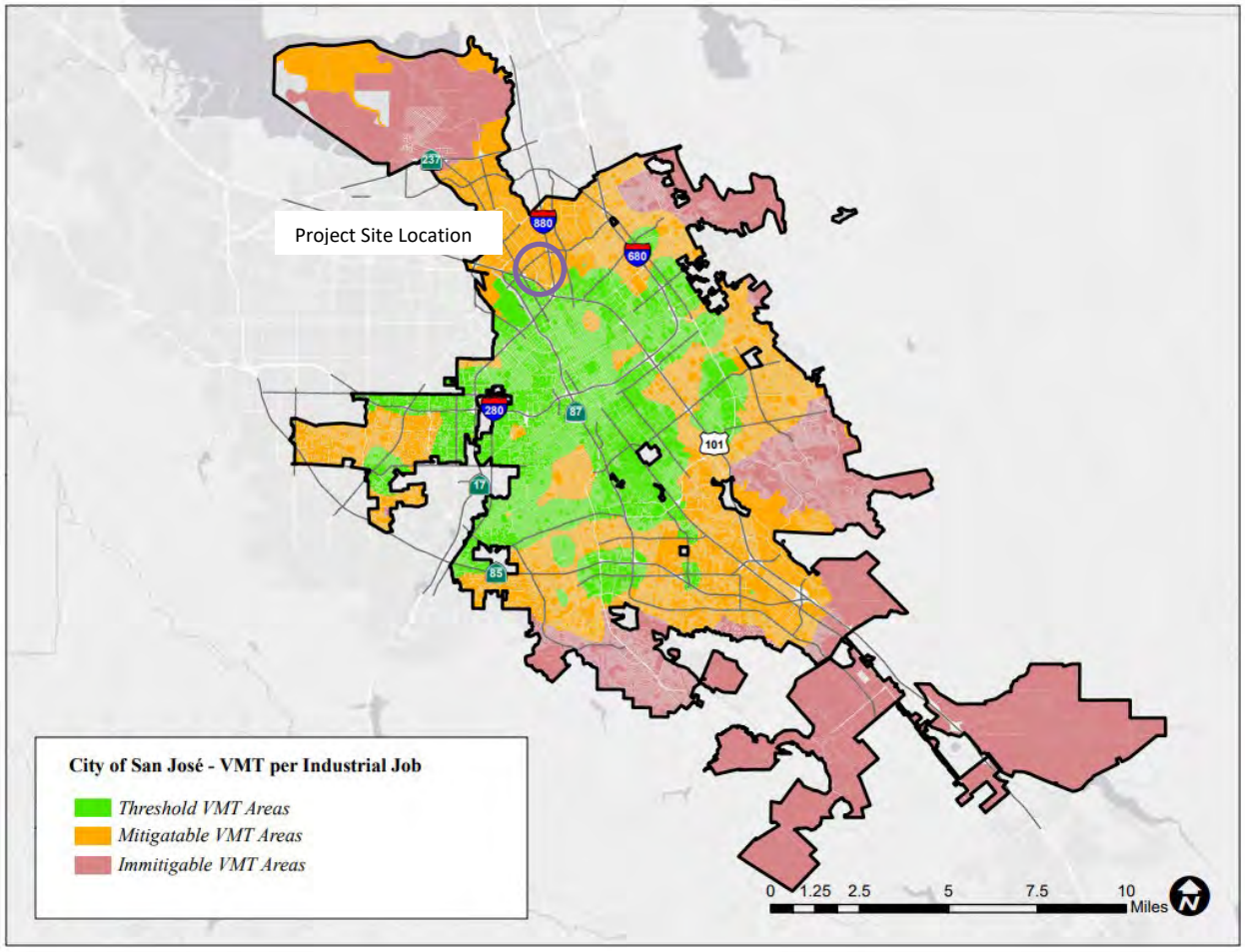


Figure 3: VMT Per Employee Heat Map for Industrial Uses



1.3 Local Transportation Analysis Scope

A Local Transportation Analysis (LTA) evaluates the effects of a development project on transportation, access, circulation, and related safety elements in the proximate area of the project. A LTA also establishes consistency with the General Plan policies and goals through the following three objectives:

1. Ensures that a local transportation system is appropriate for serving the types, characteristics, and intensity of the surrounding land uses;
2. Encourages projects to reduce personal motorized vehicle-trips and increase alternative transportation mode share;
3. Addresses issues related to operation and safety for all transportation modes, with trade-offs guided by the General Plan street typology.

For this project, the LTA was assessed per the guidelines established in the 2018 San Jose Transportation Analysis Handbook and Transportation Analysis work scope for 2256 Junction Boulevard dated June 17, 2020.

The LTA study to identify potential traffic adverse effects was evaluated per the standards and guidelines set forth by the City of San Jose and the Santa Clara Valley Transportation Authority (VTA) which administers the County Congestion Management Program (CMP). A project is required to conduct

an intersection operations analysis if the project is expected to add ten (10) or more vehicle trips per peak hour per lane to a signalized intersection that is located within half a mile of the project site. Study intersections for the project were selected in consultation with City staff and in accordance with the VTA's TIA Guidelines. The following seven (7) intersections studied in this TA are listed below.

1. Montague Expressway and East Trimble Road (CMP)
2. Junction Avenue and East Trimble Road
3. Junction Avenue and Dado Street (unsignalized)
4. Junction Avenue and Charcot Avenue
5. Junction Avenue and East Brokaw Road
6. East Brokaw Road and I-880 SB Ramps (CMP)
7. East Brokaw Road and I-880 NB Ramps (CMP)

Study Scenarios

Traffic conditions for each study intersection were analyzed during the 7:00 – 9:00 AM and 4:00 – 6:00 PM peak hours of traffic which represent the most heavily congested traffic on a typical weekday. The study intersections were assessed under the following study scenarios.

- **Existing Conditions**: Existing 2020 AM and PM peak-hour traffic volumes, intersection geometry, and traffic control based on City of San Jose 2016 traffic data with a 1% compound growth rate applied at the study intersections.

- **Background Conditions**: Peak-hour traffic volumes based on Existing conditions and adding City Approved Trip Inventory (ATI) traffic volumes from City of San Jose database to the Existing roadway geometry and traffic control. The ATI volumes represent approved but not yet constructed developments in the vicinity of the project study area.

- **Background Plus Project Conditions**: Peak-hour traffic volumes based on Background conditions and adding the net vehicle trips from the proposed 2256 Junction project to the Background roadway geometry and traffic control. The Project scenario is compared to the Background conditions for determining project traffic adverse effects.

Intersection Level-of-Service Criteria and Thresholds

Analysis of potential adverse effects at roadway intersections is based on the concept of level-of-service (LOS). The LOS of an intersection is a qualitative measure used to describe operational conditions. LOS A (best) represents minimal delay, while LOS F (worst) represents heavy delay and a facility that is operating at or near its functional capacity. LOS for this study was based on the Highway Capacity Manual (HCM) 2000 methodology with TRAFFIX software. This methodology is used by the City of San Jose for CMP-designated intersections and determining average intersection vehicle delay measured in seconds. The standards used by the City of San Jose to measure intersection operations are summarized below in **Table 2**.

Table 2: Intersection Operation Standards at Signalized Intersections

Operations Standard	Descriptions	Average Control Delay (seconds/vehicle)
A	Operations with very low delay occurring with favorable progress and/or short cycle lengths.	10.0 or less
B	Operations with low delay occurring with good progression and/or short cycle lengths.	Between 10.1 and 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	Between 20.1 and 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	Between 35.1 and 55.0
E	Operations with high delays indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	Between 55.1 and 80.0
F	Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths.	Higher than 80.0

Project adverse effects are determined by comparing baseline conditions to those scenarios with the proposed Project. Adverse effects for intersections are created when traffic from the proposed Project causes the LOS to fall below the maintaining agency's LOS threshold or causes deficient intersections to deteriorate further, per the criteria indicated below.

City of San Jose LOS Threshold

The City's acceptable intersection operations standard is LOS "D" unless superseded by an Area Development Policy. An adverse effect on intersection operations occurs when the analysis demonstrates that a project would cause the operations standard at a study intersection to fall below LOS "D" with the addition of project vehicle-trips to baseline conditions.

For intersections already operating at LOS "E" or LOS "F" under the baseline conditions, an adverse effect is defined as:

- An increase in average critical delay by 4.0 seconds or more AND an increase in the critical volume-to-capacity (V/C) ratio of 0.010 or more; OR
- A decrease in average critical delay AND an increase in the critical V/C ratio of 0.010 or more.

CMP Intersection LOS Threshold

The County's operations standard for a CMP identified intersection is LOS "E". A project is anticipated to create a significant adverse effect on traffic conditions at a CMP signal if:

- LOS at the intersection degrades from and acceptable LOS "E" or better under baseline conditions to an unacceptable LOS F under baseline plus project conditions; OR
- LOS at the intersection is an unacceptable LOS "F" under baseline 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 (0.01) or more.

1.4 Report Organization

This report includes a total of six (6) chapters as follows:

- **Chapter 2** describes existing transportation conditions including VMT of the existing land uses in the proximity of the project, the existing roadway network, transit service, bicycle and pedestrian facilities.
- **Chapter 3** describes the CEQA transportation analysis, including the project VMT impact analysis.
- **Chapters 4, 5, and 6** describe the local transportation analysis including operations of study intersections, the methods used to estimate project-generated traffic, the project's effects on the transportation system, and an analysis of other transportation issues including site access and circulation, parking, transit services, bicycle and pedestrian facilities, and neighborhood intrusion.

2 EXISTING TRANSPORTATION CONDITIONS

This chapter describes the existing conditions of the transportation system within the study area. It presents the existing land use's vehicle miles traveled (VMT) near the project and describes transportation facilities near 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 (Chapters 4, 5, and 6).

2.1 Vehicle Miles Traveled

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 residential, office, and industrial projects. Based on the VMT Evaluation Tool and the project's APN, the existing VMT for employment uses in the project vicinity is 16.08 per employee. The current regional average VMT for employment uses is 14.37 per employee (see **Table 1**). Thus, the VMT levels of existing employment uses in the project vicinity are above the average VMT levels. Chapter 3 presents additional information on the project's VMT.

2.2 Existing Roadway Network

The following local and regional roadways provide access to the project site:

Junction Avenue is a minor collector road in the north-south direction, extending from Rogers Avenue to Zanker Road in San Jose. Near the project site, Junction Avenue is a two-lane road with Class II buffered bike lanes and a center turn lane that provides direct access to commercial and industrial businesses. On-street parking is restricted along Junction Avenue and there are no existing sidewalk facilities for pedestrians. The proposed 2256 Junction project is located in the northeast corner of the Junction Avenue / Dado Street unsignalized intersection.

Dado Street is a minor collector road in the east-west direction, extending from Junction Avenue to Brennen Street in San Jose that provides direct access to commercial and industrial businesses. Truck and overnight on-street parking is restricted along Dado Street and there are no existing sidewalk facilities for pedestrians. The proposed 2256 Junction project is located in the northeast corner of the Junction Avenue / Dado Street unsignalized intersection and proposes three driveway access points along Dado Street.

Charcot Avenue is a two to four-lane, east-west collector road that provides access to various commercial and industrial businesses between I-880 and the US 101 / SR87 interchange. The road does not provide on-street parking but provides a Class II bike lane and some sidewalk facilities.

Montague Expressway is county route G4 that operates in the east-west direction, extending from Interstate 680 in Milpitas to Highway 101 in Santa Clara. East of Capitol Avenue, Montague Expressway is an eight-lane divided road that provides direct access to major regional facilities including I-880 and I-680 as well as regional destinations such as the Milpitas Great Mall. West of Capitol Avenue, Montague Expressway is a six-lane divided road that serves as an access corridor for commercial and industrial developments. The road does not provide on-street parking but provides a Class II bike lane and some sidewalk facilities.

Trimble Road is a six-lane, east-west city connector street that provides access to various commercial and industrial businesses between US 101 and Montague Expressway. The roadway is divided by a raised median and provides Class II bike lanes and sidewalk facilities in both directions.

Brokaw Road is a six-lane, east-west city connector street that provides access to the San Jose airport as well as various commercial and industrial businesses between US 101 and Oakland Road. The roadway is divided by a raised median and provides Class II bike lanes and sidewalk facilities in both directions.

Interstate 880 (I-880) is primarily a six-lane freeway that is aligned in a north-south orientation between Interstate 80 in Oakland and Interstate 280 in San Jose at which it transitions into Highway 17 to Santa Cruz. Access to the project site to and from I-880 is provided by nearby ramps at Montague Expressway and Brokaw Road.

Highway 101 is an 8-lane freeway that connects with I-880 and travels in an east-west direction in the City of San José, even though the freeway is labeled as northbound and southbound. Access to and from the project site is provided by ramp terminals at Montague Expressway and Brokaw Road.

2.3 Existing Pedestrian and Bicycle Facilities

Pedestrian activity within the North San Jose area is sparse. Connected sidewalks at least six feet wide are available along all major roadways in the study area with adequate lighting and signing. At signalized intersections, marked crosswalks, Americans with Disabilities Act (ADA) standard curb ramps, and count down pedestrian signals provide improved pedestrian visibility and safety.

Bicycle facilities in the area include Junction Avenue, Montague Expressway, Brokaw Road, Trimble Road, Zanker Road, and North 1st Street which provide Class II bike lanes with buffered striping to separate the vehicle and bike travel way. Most of these corridors feature green paint markings in potential conflict areas and at signalized intersections. Bicycle parking in the North San Jose area is limited to private commercial and industrial lots.

Near the project site, Junction Avenue does not provide sidewalk facilities for pedestrian access; however, the existing bicycle facilities near the project have good connectivity and provide bicyclists with routes to the surrounding land uses.

The San Jose Bike Plan 2020 indicates that a variety of bicycle facilities are planned in the project study area and the following Class I and II facility improvements would benefit the project.

- Junction Avenue from Roger Road to Zanker Road
- Charcot Avenue from US101 to I-880
- Coyote Creek Trail from Montague Expressway to Downtown San Jose

2.4 Existing Transit Facilities

Transit services in the study area include light rail, shuttles, and buses provided by the Santa Clara Valley Transportation Authority (VTA). Per the updated December 28, 2019* service schedule, the project study area is served by the following major transit routes.

- Local Bus Route 20
  - Milpitas BART – Sunnyvale Transit Center
  - Local service every 30-60 minutes on weekdays and weekends
  - Nearest transit stop to project – Montague Expwy / Trimble Rd intersection
- Frequent Bus Route 60
  - Milpitas BART – Winchester Station via SJC Airport
  - Local service every 12-15 minutes on weekdays and every 15-30 minutes on weekends
  - Nearest transit stop to project – Brokaw Rd / Junction Ave intersection
- Light Rail Green Line
  - Winchester – Old Ironsides
  - Nearest transit stop to project - 1st Street at Component or Karina station
- Light Rail Orange Line
  - Mountain View – Alum Rock
  - Nearest transit stop to project - 1st Street at Component or Karina station

**Note that the routes and service schedules described above are based on December 28, 2019 schedules. At the time that this report was prepared, COVID 19 had affected routes and service schedules and is not reflective of typical operations.*

Most regular bus routes operate on weekdays from early in the morning (5:00 AM to 6:00 AM) until late in the evening (10:00 PM to midnight) and on weekends from early morning (5:00 AM to 6:00 AM) until mid-evening (8:00 PM to 10:00 PM). Bus headways during peak commute periods vary between 12 to 30 minutes. The study area is served by bus routes 20 and 60 in the VTA system which provide local and regional bus service for commuters between San José downtown and major transit destinations in Santa Clara County. These bus routes also provide transit connections to the Valley Fair Transit Center, San Jose Diridon Station (Caltrain, ACE, Amtrak), Santa Clara Transit Center, VTA Light Rail stations, and Berryessa Transit Center (BART).

Bus stops with benches, shelters, and bus pullout amenities are not provided within ½ mile walking distance from the project site. The closest transit stops by the project are located at the Junction Avenue / E Brokaw Road and Montague Expressway / Trimble Road intersection.

2.5 Existing Intersections

The traffic study to identify potential traffic adverse effects was evaluated per the standards and guidelines set forth by the City of San Jose and the Santa Clara Valley Transportation Authority (VTA) which administers the County Congestion Management Program (CMP). Study intersections for the project were selected in consultation with City staff and in accordance with the VTA's TIA Guidelines. The seven (7) intersections studied in this TA are listed below.

1. Montague Expressway and East Trimble Road (CMP)
2. Junction Avenue and East Trimble Road
3. Junction Avenue and Dado Street (unsignalized)
4. Junction Avenue and Charcot Avenue
5. Junction Avenue and East Brokaw Road
6. East Brokaw Road and I-880 SB Ramps (CMP)
7. East Brokaw Road and I-880 NB Ramps (CMP)

2.6 Existing Field Observations

Field observations did reveal some traffic related congestion adjacent to the project. During the AM and PM peak hours, traffic at the US 101 and I-880 ramp intersections are congested along Montague Expressway and Brokaw Road. Intersection queues at the Montague Expressway / Trimble Road intersection were also heavy for the westbound left turn and northbound right turn movements which each consist of three separate turn lanes.

2.8 North San Jose Area Development Policy and Traffic Impact Fee

The project is subject to the North San Jose Area Development Policy (NSJ Policy). The NSJ Policy establishes a policy framework to guide the ongoing development of the North San José area as an important employment center for San José. The NSJ Policy provides for full development of the previously adopted base Floor Area Ration (FAR) caps but also provides additional industrial development capacity for 20 million square feet of transferable floor area credits that can be allocated to specific properties within the Policy area. The NSJ Policy supports the conversion of specific sites from industrial to high-density residential, using specific criteria compatible with industrial activity. The Policy also identifies necessary transportation improvements to support new development and establishes an equitable funding mechanism for new development to share the cost of those improvements.

The NSJ Policy area boundaries generally match the current boundaries of the Rincon de Los Esteros Redevelopment Area, including the area within San José north and west of Interstate 880 or the Coyote Creek, east of the Guadalupe River and south of State Route 237. The Policy area also includes an area east of Interstate 880 along Murphy Avenue as far as Lundy Avenue.

The City of San José is committed to the ongoing development of the North San José area as an important employment center and as a desirable location for high-tech corporations within San José as well as the Bay Area. Managing regional traffic patterns and establishing a framework for "smart growth" are also important goals of the City. The NSJ Policy establishes a framework to meet these goals:

- Promote Economic Activity – Provide additional long-term development capacity to support the creation of up to 80,000 new jobs along the North San José First Street corridor.
- Promote Livability – Add new housing and retail development in close proximity to new jobs, amenities and transit infrastructure.
- Promote Long-term Vitality – Establish fair-share funding mechanisms for infrastructure improvements necessary to support new development.

Based on the future growth within NSJ, the City will also collect a Traffic Impact Fee to fund the mitigation measures needed to meet future traffic conditions resulting from implementation of the area (Traffic Impact Fees will be spent on projects that have been identified as mitigation measures for the North San Jose area development.) The City prepared the North San Jose Traffic Impact Fee Plan to develop a fee mechanism and confirm the scope of the relationship between the implementation of development under the NSJ policy to the creation of the need for the infrastructure improvements. The traffic study and analysis identified infrastructure improvements with a projected cost of approximately $519 million (in year 2005 cost). Of the total cost, $30 Million is to be funded by the Redevelopment Agency and $29 million is anticipated to be obtained through alternative public funding sources, such as

State or regional agencies. The Traffic Impact Fee shall be used to fund the remaining $460 million in improvement costs.

The anticipated development levels and associated increase in traffic volumes will significantly impact the North San Jose transportation system. As such, significant roadway system improvements will be required to accommodate the future demands brought about by the proposed development of the North San Jose area. Several planned improvements including roadway, intersection, transit, bicycle, and pedestrian projects have been identified, and the phasing of the improvements is described in detail in the Area Development Policy and the EIR.

3 CEQA TRANSPORTATION ANALYSIS

This chapter describes the CEQA transportation analysis, including the VMT threshold of significance, the project-level VMT impact analysis results, and the mitigation measures that are necessary to reduce a VMT impact.

3.1 Project VMT Analysis

A VMT analysis was used to evaluate the 2256 Junction project VMT levels against the appropriate thresholds of significance established in Council Policy 5-1. Section 3.4 and Table 1 of the *Transportation Analysis Handbook* identifies screening criteria to exempt certain components of a project that are expected to result in a less-than significant VMT impact from the project description, characteristics, and/or location; However, the project's industrial component does not satisfy any screening criteria for VMT analysis exemption.

The City of San Jose VMT Evaluation Tool was used to estimate VMT impacts for the project. The VMT Evaluation Tool calculates the per-capita and per-employee VMT for the half-mile radius surrounding the project site, as calculated using the City's travel demand model and adjusted to the parcel level. For projects that would trigger a VMT impact, VMT reduction strategies such as introducing TDM or additional multimodal infrastructure can be used to mitigate the VMT impact which is estimated from research literature and case studies.

The proposed project was evaluated in the VMT tool assuming development of 141,510 square-feet of industrial use. **Table 3** summarizes the VMT analysis.

Table 3: Project VMT Analysis

Scenario	VMT per Employee	Project VMT Impact?
City VMT Threshold	14.37	N/A
Existing	16.08	N/A
Project	15.85	Yes

The City's VMT per employee threshold for industrial land uses is 14.37. For the surrounding land use area, the existing VMT is 16.08. The proposed project is anticipated to generate a VMT per employee of 15.85. The evaluation tool estimates that the project would exceed the City's industrial VMT per employee threshold and would trigger a VMT impact. The project will need to implement VMT reduction strategies to mitigate the VMT impact.

A summary of the project VMT outputs/results using the City's Evaluation Tool is presented in **Figure 4** and the **Appendices**.

3.2 VMT Reduction and Mitigation Measures

Projects must propose measures to reduce project VMT or mitigate a CEQA transportation impact if identified. Projects may select a combination of measures from the four VMT reduction strategies described in Section 3.6 of the Transportation Analysis Handbook which include project characteristics, multimodal improvements, parking, and TDM.

Since the project VMT exceeds the industrial thresholds of significance, the project will need to mitigate its CEQA transportation impact by implementing a variety of alternative transportation options and transportation demand management (TDM) measures. As addressed in the Transportation Analysis Handbook and the North San Jose Area Development Policy, the project should consider the following site design measures to mitigate its VMT impact:

- Incorporate physical improvements, such as sidewalk improvements, landscaping and bicycle parking that act as incentives for pedestrian and bicycle modes of travel.
- Provide secure and conveniently located bicycle parking and storage for employees and visitors;
- Provide bicycle and pedestrian connections from the site to the regional bikeway/pedestrian trail system.
- Place assigned carpool and van pool parking spaces at the most desirable on-site locations;
- Provide showers and lockers for employees walking or bicycling to work.
- Incorporate commercial services onsite or in close proximity
- Provide an on-site TDM coordinator;
- Provide transit information kiosks;
- Make transportation available during the day and guaranteed ride home programs 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.);
- Provide vans for van pools;
- Implementation of a carpool/vanpool program (e.g., carpool ride matching for employees, assistance with vanpool formation, provision of vanpool vehicles, and car sharing);
- Provide shuttle access to regional rail stations (e.g. Caltrain, ACE, BART);
- Provide or contract for on-site or nearby child care services;
- Offer transit use incentive programs to employees, such as on site distribution of passes and/or subsidized transit passes for a local transit system (e.g. providing VTA Eco Pass system or equivalent broad spectrum transit passes to all on-site employees);
- Implementation of parking cash out program for employees (non-driving employees receive transportation allowance equivalent to the value of subsidized parking);
- Encourage use of telecommuting and flexible work schedules;
- Require that deliveries on-site take place during non-peak travel periods.

These measures are improvements, programs, and incentives that would be implemented by the project to reduce overall trip generation and reduce single occupancy vehicle (SOV) trips to and from the project. The TDM measures would be implemented for project trips or as specified in the individual measures. By reducing SOV trips, project parking demands and vehicle trip generation would be mitigated to meet City requirements. The final details of the TDM program such as effectiveness and monitoring would be provided in a separate document and would need to be coordinated between the project applicant and the City for approval.

The project applicant would be responsible for ensuring that the TDM trip reduction measures are implemented. After the development is constructed and the site is occupied, the property manager for the project would assume responsibility for implementing the ongoing TDM measures and be the TDM coordinator for developing, marketing, and evaluating the TDM program. Alternatively, a separate TDM coordinator could be identified for the project.

Based on the City of San Jose VMT Evaluation Tool, implementation of all City VMT reduction strategies can reduce the project's per employee VMT to a maximum floor of 12.86 which is below the 14.37 industrial VMT threshold. Although implementation of every available City VMT reduction strategy may not be feasible, it should be noted that a combination of identified subset VMT reduction strategies can help the project meet the City VMT threshold.

The following describes the applicable TDM measures that the project applicant is proposing to reduce project VMT per employee to 14.37 and satisfy the 14.37 City VMT per employee threshold. The proposed VMT results are based on inputs from the City of San Jose VMT Evaluation Tool. Final implementation of a TDM plan would need to be coordinated between the project applicant and the City.

3.3 Tier 3 Parking VMT Reduction Strategies

End of Trip Bicycle Facilities

The project is planning to install on-site bicycle parking spaces and shower / locker facilities to accommodate full time employees who bike to work. The proposed bicycle spaces would be located in a sheltered and secured location and would have sufficient spaces to satisfy City bicycle parking requirements.

This improvement assumes at least 11 on-site bicycle spaces to satisfy the City's minimum bicycle requirement (See Section 6.6).

3.4 Tier 4 TDM Program VMT Reduction Strategies

TDM Marketing and Information Strategies

A strong marketing and public information campaign for the proposed TDM measures can help provide awareness to employees and improve participation in these programs. The project can designate an on-site TDM manager and distribute the following for marketing its TDM plan:

- Information "Welcome" packets for new employees which includes information about public transit services, discount transit passes, bicycle maps, bike share locations, and rideshare programs.
- Building / Project website with information and links to relevant TDM agencies, forms, and services.
- Regularly published electronic newsletter and e-blasts.
- Information boards located in the lobby of the project posting updates to relevant TDM programs and incentives.

This TDM measure assumes a 16% participation rate from the City's VMT Evaluation Tool.

Ridesharing / Guaranteed Ride Home

A ridesharing / guaranteed ride home (GRH) program provides an occasional subsidized ride to commuters who use alternative modes and eliminates a common constraint to the use of alternative transportation. This TDM measure would provide a guaranteed ride home for people who do not drive to work alone to ensure they are not stranded if they need to go home in the middle of the day due to an emergency or stay late and need a ride at a time when transit service is not available. The project can augment the GRH program through partnering with a Transportation Network Company (TNC such as Uber, Lyft, or Sidecar) to provide reliable transportation options for non-drivers.

This TDM measure assumes a 16% participation rate from the City's VMT Evaluation Tool.

3.5 Cumulative Impact Analysis

Projects must also demonstrate consistency with the Envision San Jose 2040 General Plan to address cumulative impacts. If a project is determined to be consistent with the General Plan, the project will be considered part of the cumulative solution to meet the General Plan's long-range goals and it will result in a less-than-significant cumulative impact. Factors that contribute to a determination of consistency with the General Plan include a project's density, design, and conformance to the goals and policies set forth in the General Plan.

Based on the project description and intended use, the proposed 2256 Junction development is consistent with the goals of the General Plan and the North San Jose Area Development Policy and is anticipated to result in a less-than-significant cumulative impact.

Figure 4: San Jose VMT Evaluation Tool Summary Report

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

PROJECT:

Name:	2256 Junction Ave - DDO1 Site Analysis	Tool Version:	2/29/2019
Location:	2256 Junction Blvd	Date:	1/11/2021
Parcel:	23718075	Parcel Type: Suburb with Multifamily Housing	

Proposed Parking Spaces Vehicles: 552 Bicycles: 14

LAND USE:

Residential:		Percent of All Residential Units	
Single Family	0 DU	Extremely Low Income (≤ 30% MFI)	0 % Affordable
Multi Family	0 DU	Very Low Income (> 30% MFI, ≤ 50% MFI)	0 % Affordable
Subtotal	0 DU	Low Income (> 50% MFI, ≤ 80% MFI)	0 % Affordable
Office:	0 KSF		
Retail:	0 KSF		
Industrial:	141.5 KSF		

VMT REDUCTION STRATEGIES

Tier 1 - Project Characteristics

Increase Residential Density	
Existing Density (DU/Residential Acres in half-mile buffer)	18
With Project Density (DU/Residential Acres in half-mile buffer)	18
Increase Development Diversity	
Existing Activity Mix Index	0.63
With Project Activity Mix Index	0.63
Integrate Affordable and Below Market Rate	
Extremely Low Income BMR units	0 %
Very Low Income BMR units	0 %
Low Income BMR units	0 %
Increase Employment Density	
Existing Density (Jobs/Commercial Acres in half-mile buffer)	17
With Project Density (Jobs/Commercial Acres in half-mile buffer)	17

Tier 2 - Multimodal Infrastructure

Tier 3 - Parking

End of Trip Bike Facilities	
Bicycle Parking Spaces Provided by Project	14 spaces
Project Provides Additional End-of-Trip Facilities Beyond Parking?	Yes

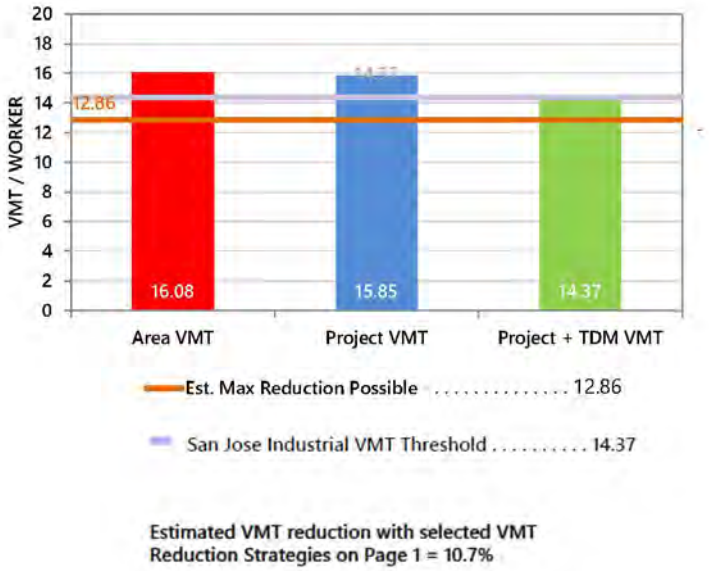
Tier 4 - TDM Programs

Commute Trip Reduction Marketing/ Education	
Percent of Eligible Employees	16 %
Ride-Sharing Programs	
Percent of Eligible Eemployees	16 %

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.



Estimated VMT reduction with selected VMT Reduction Strategies on Page 1 = 10.7%

4 LTA PROJECT DESCRIPTION

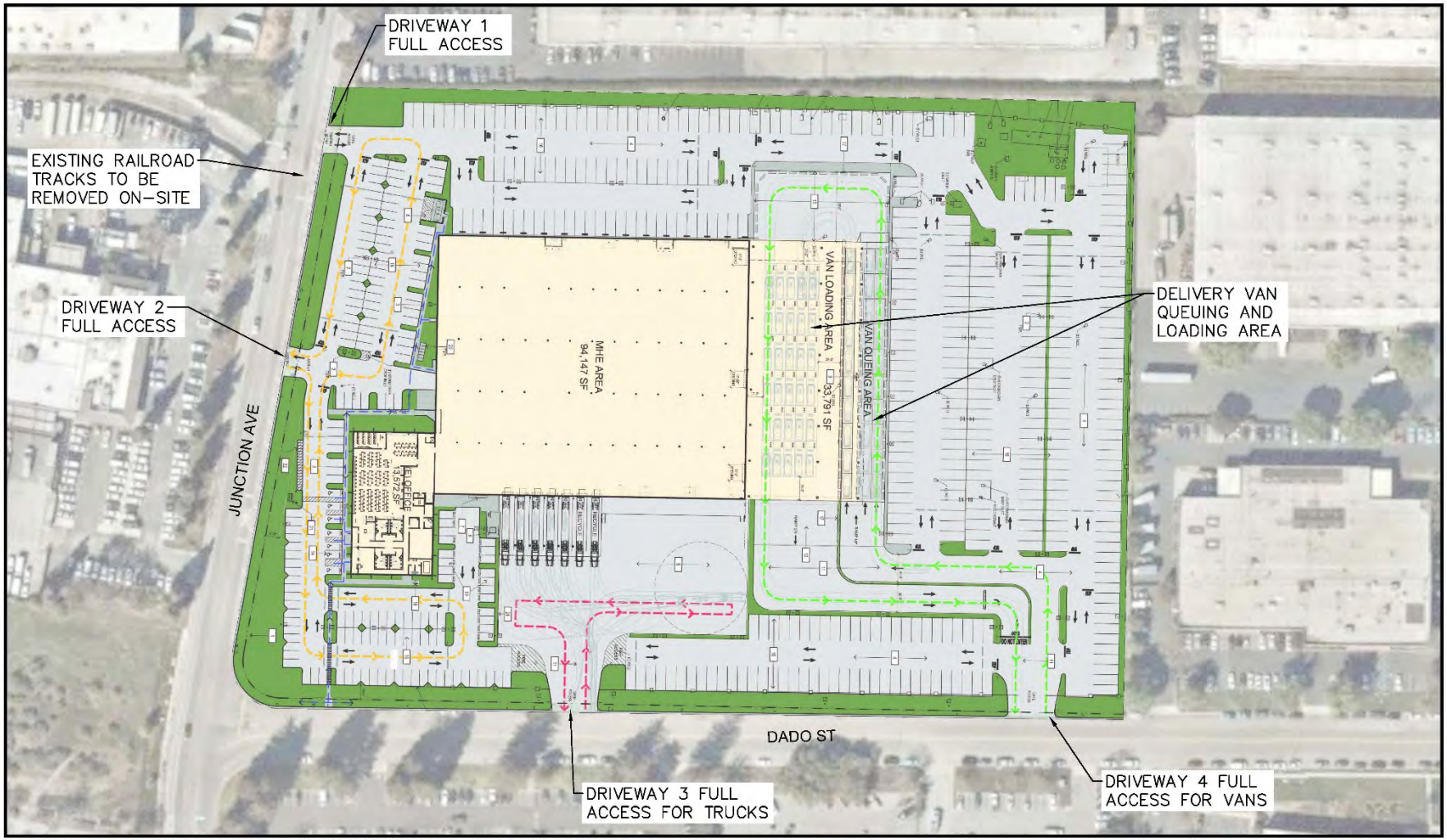
This chapter describes the local transportation analysis including the method by which project traffic is estimated through trip generation, trip distribution, and volume assignment.

4.1 Project Site Plan

Based on the most recent August 2020 site plan provided by AO Architects, the proposed 2256 Junction project proposes to repurpose the existing warehouse into a 141,510-square foot "Delivery Station" fulfillment center warehouse. This facility specializes in last mile delivery of customer orders to help speed-up deliveries for customers in the local area. The project will employ both full time and part time workers on-site consisting of sortation associates inside the warehouse, delivery service partners who transport/deliver customer orders, and site managers.

The project site will be accessed by the existing driveways on-site with two driveways along Junction Avenue and two driveways along Dado Street. One driveway along Dado Street provides exclusive access for inbound semi-trailer truck shipments and the other driveway along Dado Street provides access for delivery van loading and deliveries. The project will provide up to 552 standard vehicular parking spaces to accommodate tenant employees, delivery vans, and delivery service partners throughout the 24-hour operations. The project site plan is presented in **Figure 5** and the **Appendices**.

Figure 5: Project Site Plan



4.2 Project Trip Generation

Project Site Vehicle Operations

To provide a conservative and representative analysis, trip generation for the proposed delivery station warehouse was determined from site operation data provided by the project applicant. These project trips were verified with trip generation data from the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition*. The project trips provided by the project applicant were found to be more conservative than ITE rates and representative of the intended use, and therefore were used to determine net peak hour vehicle trips. This trip generation comparison is referenced in the **Appendices**.

A trip is defined as a single or one-directional vehicle movement in either the origin or destination at the project site. In other words, a trip can be either "to" or "from" the site. In addition, a single customer visit to a site is counted as two trips (i.e. one to and one from the site). Weekday daily, AM, and PM peak hour trips for the project were determined from daily employee count and vehicle fleet operations. From the tenant's project description, the project use is most similar to ITE 154 High Cube Transload & Short-Term Storage Warehouse and is anticipated to operate with the following employee vehicle operations:

"Delivery stations operate 24/7 to support delivery of packages to at customer locations between 10:00 AM and 8:30 PM. At their proposed San Jose, CA facility, the Tenant anticipates approximately fourteen (14) line haul trucks delivering packages to the delivery station each day, in any 24-hour period. The customer packages are unloaded, sorted, picked to the delivery routes, placed onto movable racks and staged for dispatch. Approximately 106 Tenant associates (in total) support this operation. The majority of the associate shift structure designed between 2:00 AM and 2:30 PM (approximately 73 at those times) that mitigates traffic impact during rush hour periods. The additional 33 Tenant associates arrive and depart between 1:00 PM and 10:00 PM that make up additional support of operations.

The DSP delivery associates arrive at a delivery station at 9:00 AM. Starting at 10:00 AM and ending at 11:30 AM, approximately 101 delivery vans will load and depart from the delivery station at an average rate of 30 vans every 20 minutes to facilitate a regulated traffic flow into the surrounding area. Meaning, the first wave of 30 delivery vans depart the station at 10:00 AM. The departure window is designed to mitigate impact on rush hour periods. Approximately 8-10 hours after dispatch, delivery routes are completed, and the vans return to the station between 7:00 PM and 9:00 PM. The drivers park the delivery van onsite and leave using a personal vehicle or public transport.

The Tenant will also use Tenant Flex to deliver packages from this location. Tenant Flex works in concert with an advanced logistics systems and technology that the Tenant has been building since day one. The Tenant anticipates approximately 31 traditional passenger vehicles entering the facility staggered between 4:00 PM and 5:00 PM. Flex vehicles will load and depart every 15 minutes."

From the proposed tenant operations described above, most of the daily project trips are generated outside of typical 7-9 AM and 4-6 PM peak hour commute times. Peak inbound and outbound employee vehicle trips occur during shift changes at 2 AM, 9AM, 1PM, and 5PM while delivery van trips generated on-site occur from 9-11AM and 7-9PM.

A full project description and summary of the total baseline vehicles accessing the project under daily operations is referenced in the **Appendices**.

Baseline Vehicle Trips

Baseline vehicle trips for the proposed project (excluding trip adjustments) are anticipated to generate a gross total of 700 daily trips, 3 AM peak hour trips, and 64 PM peak hour vehicle trips. Of the AM peak hour trips, approximately 1 trip will be inbound to the project and 2 trips will be outbound from the project. For the PM peak hour trips, approximately 32 trips are inbound while 32 trips are outbound.

Vehicle Trip Reductions

Per the per the 2018 *Transportation Analysis Handbook*, an internal capture reduction can be applied based on vehicle-trip reduction rates from the *VTA Transportation Impact Analysis Guidelines*. An internal capture reduction was not applied to the project, since it does not contain an applicable mixed land use.

A location-based mode share trip reduction was applied. This adjustment is a function of multimodal connectivity and accounts for greater mode share for projects located in urban or transit developed areas. From **Table 5** and **Table 6** of the *Transportation Analysis Handbook*, the project location is designated as a "Suburb with multifamily housing" area with a vehicle mode share of 92 percent for industrial land uses. Therefore, an 8% mode share trip reduction was assumed to the project.

Per the *Transportation Analysis Handbook*, identified VMT reduction strategies will also encourage reductions in vehicle-trips generated by the project. For commercial and industrial projects, it is assumed that every percent reduction in per-employee VMT is equivalent to one percent reduction in peak hour vehicle trips. From the City's VMT Evaluation Tool, the project would generate a VMT of 15.85; however, with VMT reduction strategies identified in Section 3, the proposed project would generate a VMT of 14.37. Therefore, a VMT vehicle-trip reduction of 10.7% was applied to the project.

Total gross vehicle trips for the proposed project (including trip adjustments) are to be 575 daily trips, 3 AM peak hour trips, and 53 PM peak hour vehicle trips. Of the AM peak hour trips, approximately 1 trip will be inbound to the project and 2 trips will be outbound from the project. For the PM peak hour trips, approximately 26 trips will be inbound, while 27 trips are outbound.

The project will also involve repurposing the existing Univar USA warehouse at 2256 Junction Avenue, and the land use could be eligible for an existing use trip credit. The existing use trip credit was determined from peak hour driveway counts collected at the existing site in 2019. These driveway counts are referenced in the **Appendices** and were found to be consistent with ITE 150 Warehouse rates and peak hour trips of a similar land use size.

Net Vehicle Project Trips

Development of the proposed project with all applicable trip reductions and credits is anticipated to generate a net total of 291 additional daily trips, 0 AM, and 30 PM peak hour trips to the roadway network. **Table 4** provides a summary of the proposed trip generation and trip reductions/credits.

Table 4: Project Trip Generation

LAND USE / DESCRIPTION	PROJECT SIZE	TOTAL DAILY TRIPS	AM PEAK TRIPS			PM PEAK TRIPS		
			TOTAL	IN	/ OUT	TOTAL	IN	/ OUT
Trip Generation Rates (ITE)								
Warehouse [ITE 150]	Per 1,000 Sq Ft	1.74	0.17	77%	/ 23%	0.19	27%	/ 73%
Fulfillment Center Warehouse [ITE 154]	Per 1,000 Sq Ft	1.40	0.08	77%	/ 23%	0.10	28%	/ 72%
1. Baseline Vehicle-Trips								
Delivery Station DDO1 Steady State Operations	141.51 1,000 Sq Ft	700	3	1	/ 2	64	32	/ 32
Baseline Project Vehicle-Trips		**700**	**3**	**1**	**/ 2**	**64**	**32**	**/ 32**
2. Internal Trip Adjustments								
Mixed-Use Reduction (VTA Internal Capture)	0% N/A	0	0	0	/ 0	0	0	/ 0
Project Vehicle-Trips After Reduction		**700**	**3**	**1**	**/ 2**	**64**	**32**	**/ 32**
3. Location-based Mode Share Adjustments								
Suburb With Multi-Family (Mode Share)	-8%	(56)	0	0	/ 0	(5)	(3)	/ (2)
Project Vehicle-Trips After Reduction		**644**	**3**	**1**	**/ 2**	**59**	**29**	**/ 30**
4. Project Trip Adjustments								
VMT Vehicle-Trip Reduction (Model Sketch Tool)	-10.7%	(69)	0	0	/ 0	(6)	(3)	/ (3)
Project Vehicle-Trips After Reduction		**575**	**3**	**1**	**/ 2**	**53**	**26**	**/ 27**
5. Other Trip Adjustments								
Pass-by and Diverted Link Trips (N/A)	0% N/A	0	0	0	/ 0	0	0	/ 0
Existing Driveway Counts (9/17/2019)		(284)	(21)	(14)	/ (7)	(23)	(7)	/ (16)
Other Trip Adjustment Subtotal		**(284)**	**(21)**	**(14)**	**/ (7)**	**(23)**	**(7)**	**/ (16)**
Baseline Project Vehicle-Trips		**700**	**3**	**1**	**/ 2**	**64**	**32**	**/ 32**
Gross Project Vehicle-Trips		**575**	**3**	**1**	**/ 2**	**53**	**26**	**/ 27**
Net Project Vehicle-Trips		**291**	**(18)**	**(13)**	**/ (5)**	**30**	**19**	**/ 11**
Final Net Project Vehicle-Trips (For Analysis)		**291**	**0**	**0**	**/ 0**	**30**	**19**	**/ 11**
Notes:								
Warehouse Land Uses assumed based on proposed site plan from AO Architects (11/6/2020)								
Baseline Daily, AM, and PM trips based on DD01 project description and facility operations provided by the Client. This scenario generates greater net PM trips than ITE land use rates and was used for conservative transportation								
A 8% Mode Share Reduction from San Jose Transportation Analysis Handbook 2018 was applied since the project is located in an "Suburb with Multi-Family Housing" area.								
A 10.7% VMT Reduction from San Jose Transportation Analysis Handbook 2018 was applied since the project is planning to implement a TDM program. Reduction percentage obtained from City VMT Evaluation Tool.								

The proposed warehouse project will generate a daily combination of employee passenger car, delivery van, and delivery truck vehicle trips. **Table 4** provides a breakdown of baseline passenger car, van, and truck trips generated by the project based on project applicant data.

Table 5: Project Trip Generation by Vehicle Type

Vehicle Trip Type	TOTAL DAILY TRIPS	AM PEAK TRIPS			PM PEAK TRIPS		
		TOTAL	IN	OUT	TOTAL	IN	OUT
Baseline Vehicle Trips							
Car	476	0	0	0	62	31	31
Van	202	0	0	0	0	0	0
Truck	22	3	1	2	2	1	1
Total Trips	**700**	**3**	**1**	**2**	**64**	**32**	**32**

4.3 Project Trip Distribution and Assignment

Due to the nature of the proposed development, vehicle project trips are anticipated to access the I-880 and US 101 regional freeways. Trip distribution and assignment assumptions for the 2256 Junction project were based on the project driveway location, the freeway ramp location, community characteristics, and professional engineering judgement. The project trips to and from the site are anticipated to access the following regional facilities and destinations with the estimated trip distribution percentages as shown in **Table 6**.

Table 6: Project Trip Distribution

Location	Roadway Origin / Destination	Inbound Trip Distribution (%)	Outbound Trip Distribution (%)
A	Montague Expressway West	10%	10%
B	Montague Expressway East	10%	10%
C	Trible Road West	5%	5%
D	Brokaw Road West	10%	10%
E	Brokaw Road East	10%	10%
F	I-880 North	30%	30%
G	I-880 South	30%	30%

The net project trip assignments and distributions are presented in **Figure 6** and **Figure 7**. The trip assignment shown represents the shortest paths to and from the project site under ideal traffic conditions.

Figure 6: Project Trip Distribution

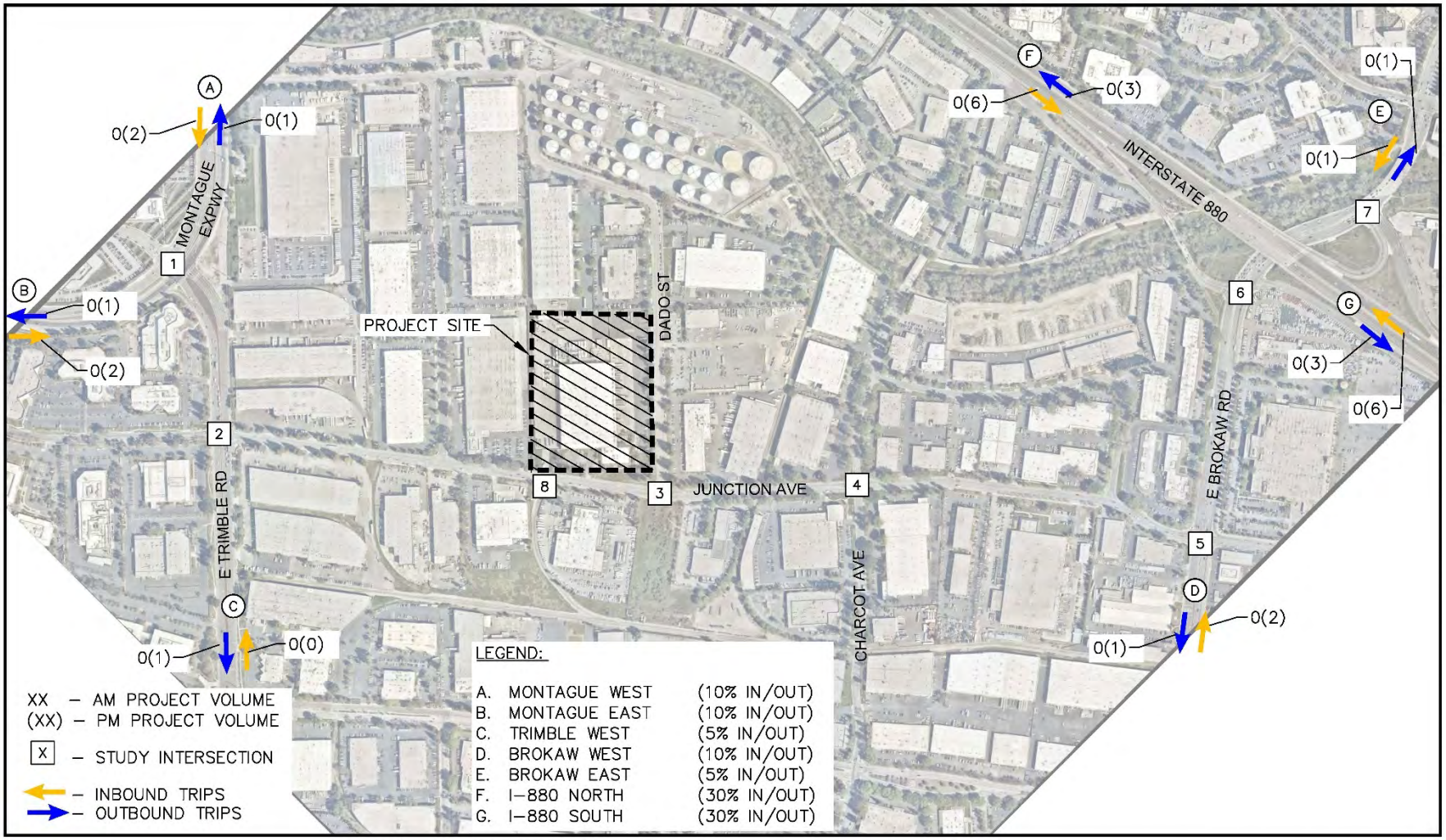
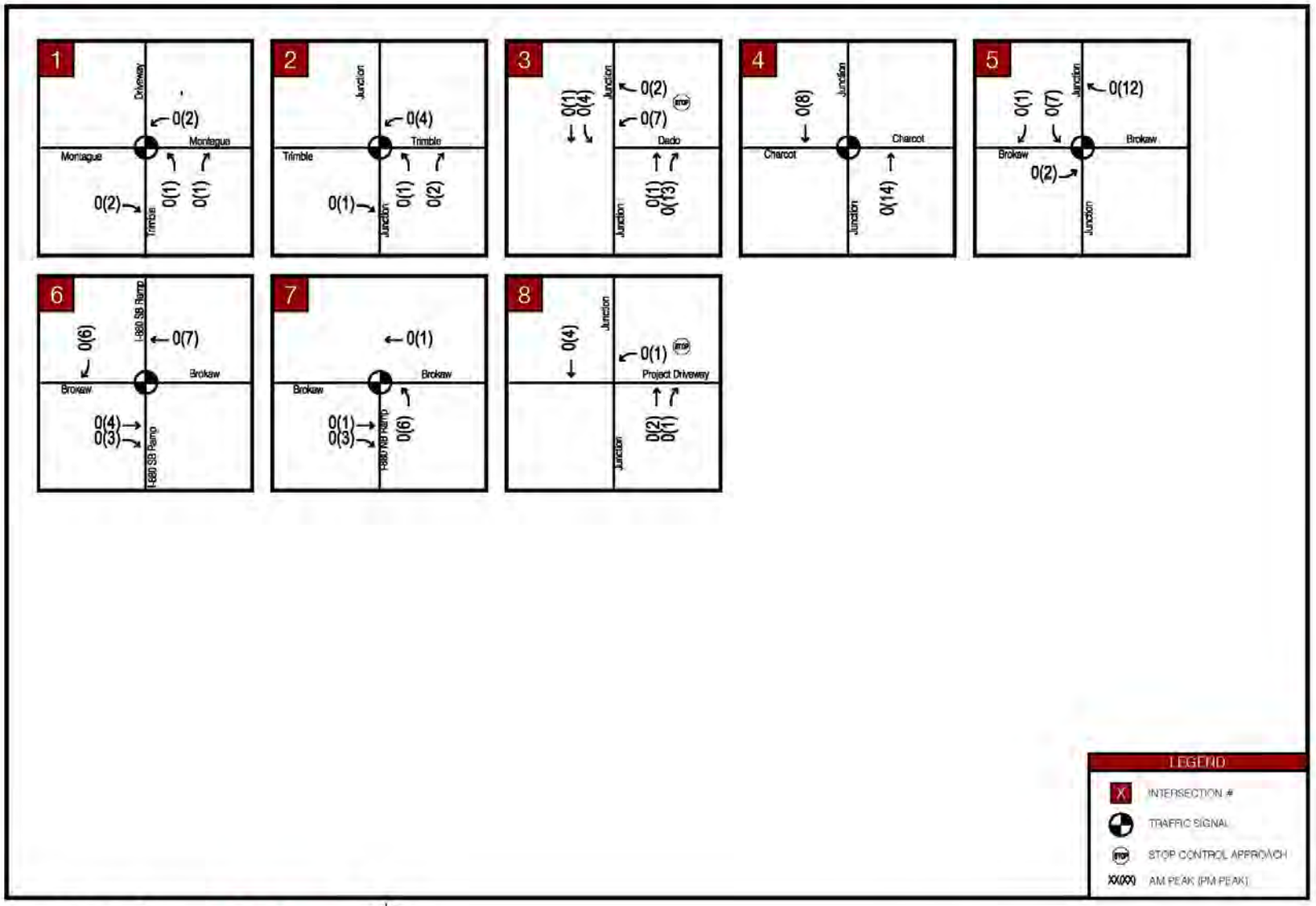


Figure 7: Net Project Assignment



Kimley»Horn

DH-197279002 DECEMBER 2020

NET PROJECT PEAK HOUR VOLUMES

2256 JUNCTION AVE TRANSPORTATION ANALYSIS

5 LTA INTERSECTION OPERATIONS

This chapter describes the local transportation analysis including intersection operations analysis for: existing, background, and background plus project conditions; intersection vehicle queuing analysis; and mitigation measures for any adverse effects to intersection level of service caused by the project.

5.1 Existing Conditions Analysis:

Due to COVID-19 situation, traffic counts for Year 2020 was determined from historic count data. Weekday AM and PM peak hour intersection turning movement volumes for the existing study intersections were obtained from City of San Jose 2016 traffic data and applying a 1% compound growth rate. These historic counts included vehicles, bicycles, and pedestrians and were collected when local schools were in session and the weather was fair. Peak hour volumes during each intersection's respective peak were conservatively used in this analysis, therefore, some volume imbalances were observed between study intersections. Where imbalances occurred, volumes were conservatively increased slightly above what was counted in the field. Existing intersection lane geometry and peak hour turning movement volumes are shown in **Figure 8** and **Figure 9**, respectively.

Traffic operations were evaluated at the study intersections under Existing conditions, and the results of the analysis are presented in **Table 7**. New intersection turning-movement counts and TRAFFIX output sheets are provided in the **Appendices**.

Table 7: Intersection Operations Summary for Existing Conditions

#	Intersection	LOS Criteria	Jurisdiction	Control	Existing Conditions							
					AM Peak				PM Peak			
					LOS	Delay (sec)[1]	v/c Ratio	Crit. Delay (sec)	LOS	Delay (sec)[1]	v/c Ratio	Crit. Delay (sec)
1	Montague Expwy / East Trimble Rd	E	SJ/CMP	Signal	C	27.9	0.579	43.5	D	44.9	0.770	49.4
2	Junction Ave / East Trimble Rd	D	SJ	Signal	C	25.5	0.366	20.0	D	35.2	0.668	43.0
3	Junction Ave / Dado St	D	SJ	Stop	C	15.1	0.019	0.3	C	19.2	0.037	0.2
4	Junction Ave / Charcot Ave	D	SJ	Signal	C	26.5	0.452	24.0	D	35.5	0.779	40.0
5	Junction Ave / East Brokaw Rd	D	SJ	Signal	C	23.9	0.643	29.8	C	31.3	0.730	35.4
6	East Brokaw Rd / I-880 SB Ramps	E	SJ/CMP	Signal	D	37.6	0.643	30.0	D	40.1	0.727	48.5
7	East Brokaw Rd / I-880 NB Ramps	E	SJ/CMP	Signal	C	21.0	0.763	14.7	C	21.8	0.596	29.0
8	Junction Ave / Project Driveway 1	D	SJ	Stop	Intersection Does Not Exist In This Scenario							

As shown above, all study intersections currently operate at acceptable LOS during the AM and PM peak hour during Existing conditions.

Figure 8: Existing Intersection Lane Geometry

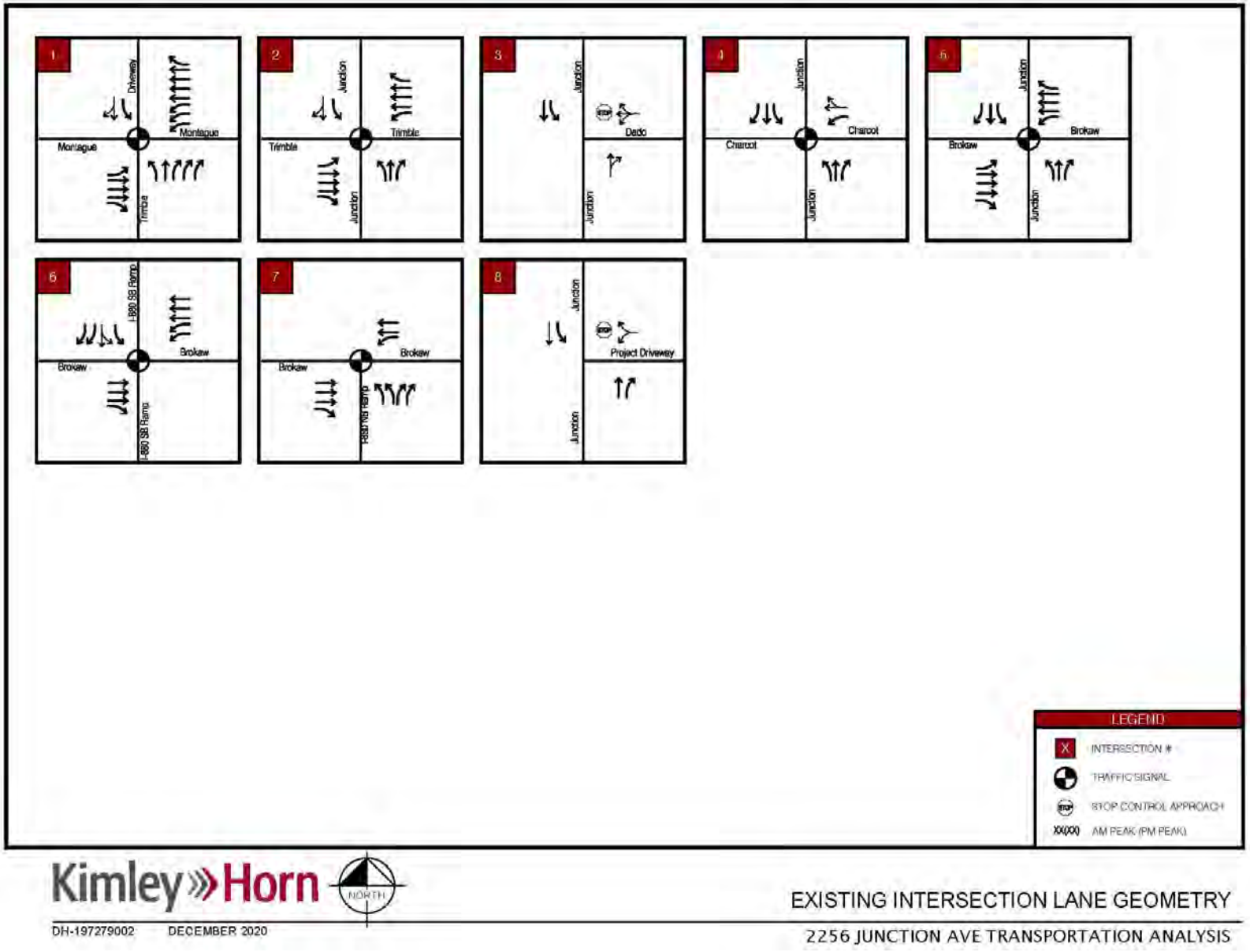
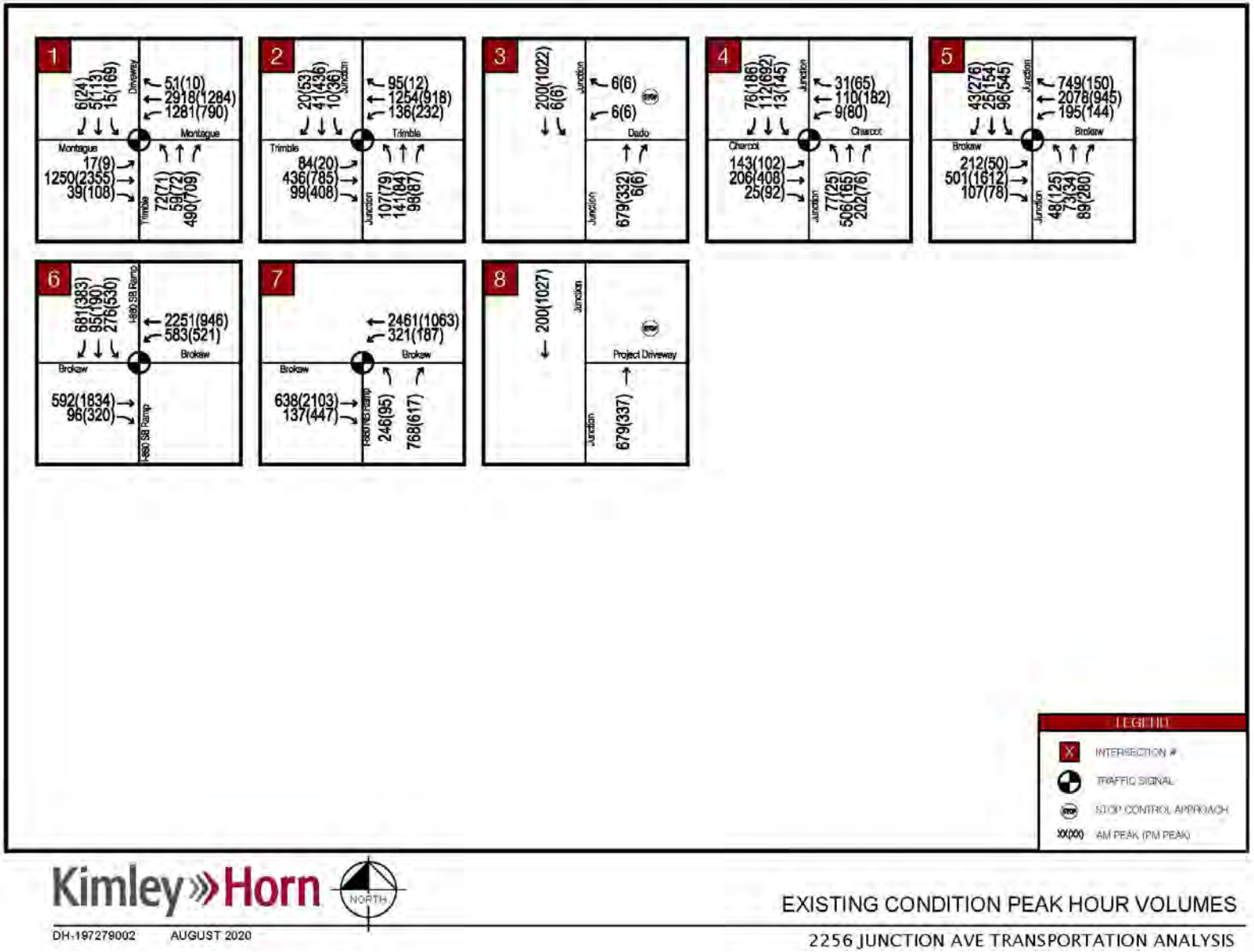


Figure 9: Existing Traffic Volumes



5.2 Background Conditions Analysis

Traffic generated from other approved projects in the North and the project study area were obtained from the City of San Jose Approved Trip Inventory (ATI) database attached in the **Appendices**. These ATI traffic volumes were added to the existing traffic counts to generate the Background baseline scenario and include the following local projects.

- North San Jose Area Development
- San Jose International Airport Expansion
- H14-020 (3-04341) 750 Ridder Park Drive, Supermicro
- PDC03-108 Off (3-16680) Berryessa Flea Market Office
- PDC03-108 Res (3-16680) Berryessa Flea Market Residential
- PDC03-108 Ret (3-16680) Berryessa Flea Market Retail
- PRE05-430 Comm (3-12552) Pepper Lane Retail/Commercial
- H83-01-001 (3-12093) Junction Avenue, Ultratech Stepper Original Trips
- H97-03-018 (3-12093) Junction Avenue, Ultratech Stepper
- H14-011 (3-18810) Homewood Suites Hotel
- H89-01-008 (3-08268) OFC 88, 433l IND 88433, WHSE
- PD13-012 (3-09684) South Bay Office/Industrial
- PD13-039 (3-18698) Trammel Crow R&D
- PD14-007 (3-18698) Trammel Crow Manufacturing

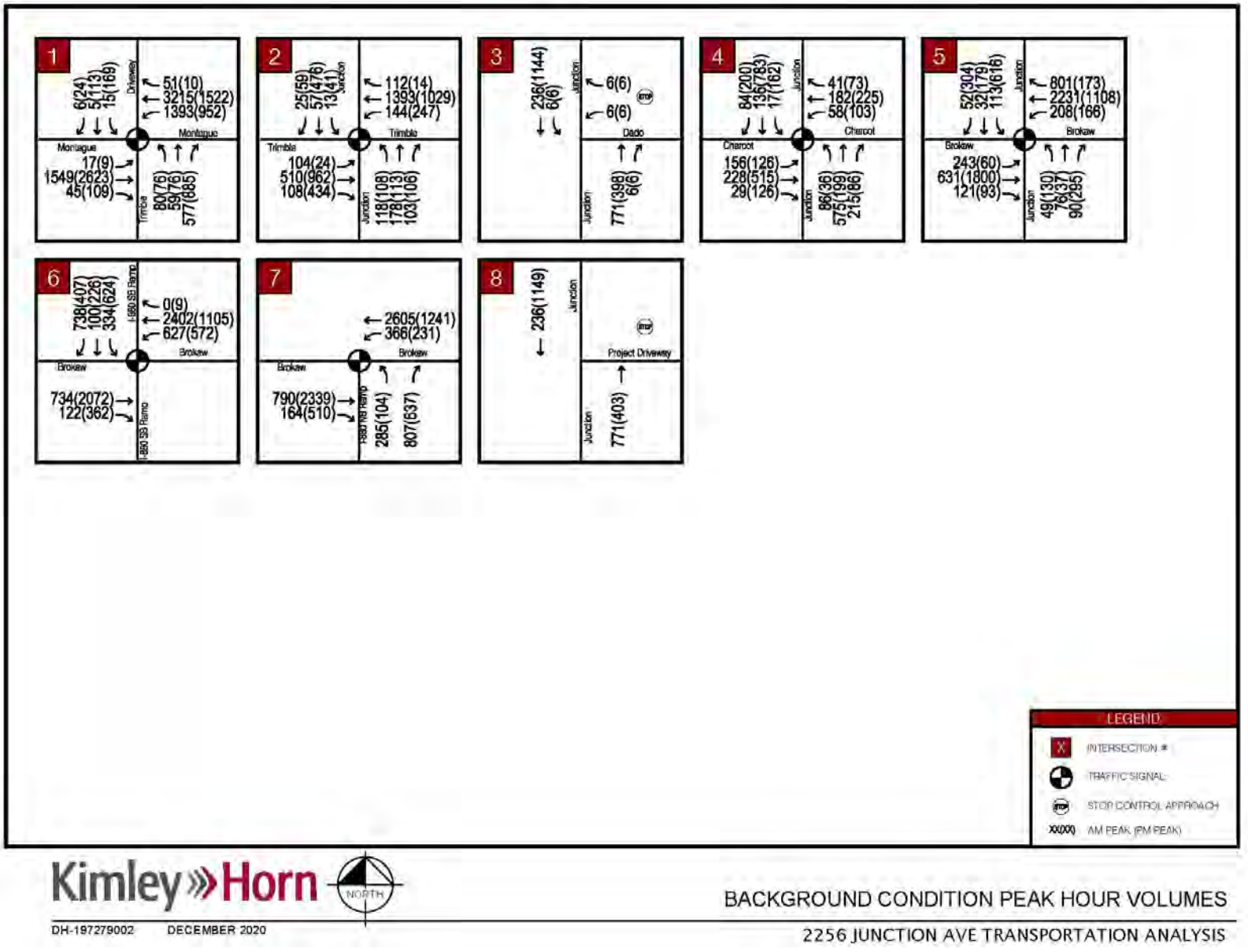
Traffic operations for the study intersections under Background conditions are shown below in **Table 8** and **Figure 10**.

Table 8: Intersection Operations Summary for Background Conditions

#	Intersection	LOS Criteria	Jurisdiction	Background Conditons							
				AM Peak				PM Peak			
				LOS	Delay (sec)[1]	v/c Ratio	Crit. Delay (sec)	LOS	Delay (sec)[1]	v/c Ratio	Crit. Delay (sec)
1	Montague Expwy / East Trimble Rd	E	SJ/CMP	C	29.8	0.662	46.2	D	47.8	0.860	55.0
2	Junction Ave / East Trimble Rd	D	SJ	C	26.9	0.425	22.5	D	36.3	0.720	45.2
3	Junction Ave / Dado St	D	SJ	C	16.8	0.031	0.3	D	23.2	0.098	0.4
4	Junction Ave / Charcot Ave	D	SJ	C	29.6	0.549	26.7	D	52.9	0.947	70.0
5	Junction Ave / East Brokaw Rd	D	SJ	C	25.7	0.712	33.8	C	33.9	0.830	40.2
6	East Brokaw Rd / I-880 SB Ramps	E	SJ/CMP	D	39.6	0.691	31.7	D	43.1	0.828	53.1
7	East Brokaw Rd / I-880 NB Ramps	E	SJ/CMP	C	23.8	0.818	17.7	C	21.7	0.648	29.4
8	Junction Ave / Project Driveway 1	D	SJ	Intersection Does Not Exist In This Scenario							

As shown above, the study intersections are anticipated to operate at acceptable LOS during the AM and PM peak hour under Background conditions.

Figure 10: Background Traffic Volumes



5.3 Background Plus Project Conditions Analysis

Traffic operations were evaluated at the study intersections under Background Plus Project conditions based on Background conditions and adding the net vehicle trips from the proposed 2256 Junction project to the Background roadway geometry and traffic control. The net project traffic volumes were incorporated from the Trip Generation and Trip Distribution described in Section 4 of this report. Traffic operations for the study intersections under Project conditions are shown below in **Table 9** and **Figure 11**.

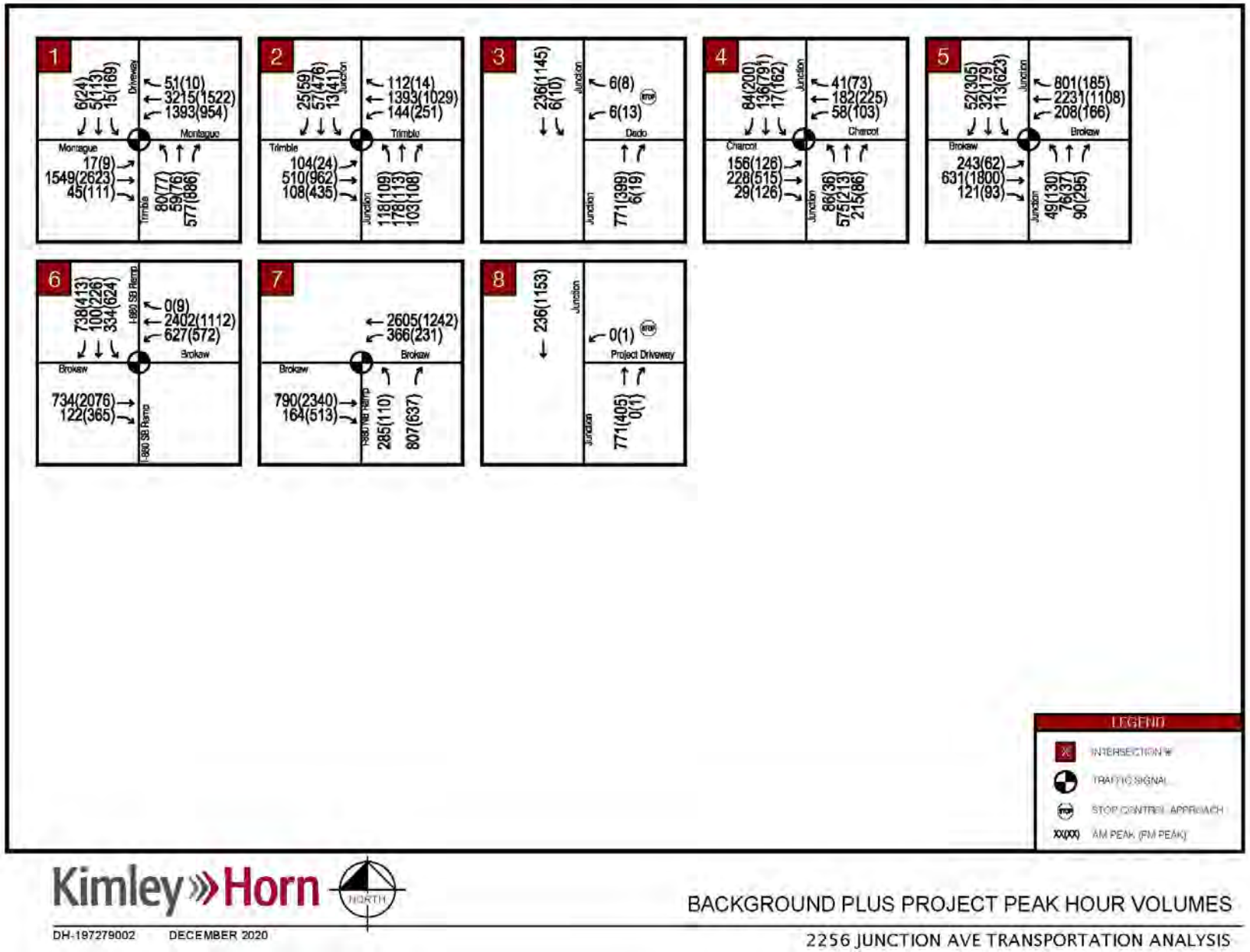
The study intersections are anticipated to operate at acceptable LOS during the AM and PM peak hour, and the project is not anticipated to create a significant traffic adverse effect under Background Plus Project conditions.

Table 9: Intersection Operations Summary for Background Plus Project Conditions

#	Intersection	LOS Criteria	Jurisdiction	Background Plus Project Conditions							
				AM Peak							
				LOS	Delay (sec)[1]	Delay Var	v/c Ratio	v/c Var	Crit. Delay (sec)	Crit. Delay Var	Impact
1	Montague Expwy / East Trimble Rd	E	SJ/CMP	C	29.7	-0.1	0.662	0.000	46.2	0.0	NO
2	Junction Ave / East Trimble Rd	D	SJ	C	26.9	0.0	0.425	0.000	22.5	0.0	NO
3	Junction Ave / Dado St	D	SJ	C	16.8	0.0	0.023	-0.008	0.2	-0.1	NO
4	Junction Ave / Charcot Ave	D	SJ	C	29.6	0.0	0.543	-0.006	26.7	0.0	NO
5	Junction Ave / East Brokaw Rd	D	SJ	C	25.6	-0.1	0.704	-0.008	33.4	-0.4	NO
6	East Brokaw Rd / I-880 SB Ramps	E	SJ/CMP	D	39.5	-0.1	0.689	-0.002	31.6	-0.1	NO
7	East Brokaw Rd / I-880 NB Ramps	E	SJ/CMP	C	23.6	-0.2	0.816	-0.002	17.5	-0.2	NO
8	Junction Ave / Project Driveway 1	D	SJ	A	0.0	0.0	0.000	0.000	0.0	0.0	NO

#	Intersection	LOS Criteria	Jurisdiction	Background Plus Project Conditions							
				PM Peak							
				LOS	Delay (sec)[1]	Delay Var	v/c Ratio	v/c Var	Crit. Delay (sec)	Crit. Delay Var	Impact
1	Montague Expwy / East Trimble Rd	E	SJ/CMP	D	47.9	0.1	0.861	0.001	55.0	0.0	NO
2	Junction Ave / East Trimble Rd	D	SJ	D	36.3	0.0	0.723	0.003	45.4	0.2	NO
3	Junction Ave / Dado St	D	SJ	D	28.2	5.0	0.107	0.009	0.4	0.0	NO
4	Junction Ave / Charcot Ave	D	SJ	D	52.5	-0.4	0.945	-0.002	69.4	-0.6	NO
5	Junction Ave / East Brokaw Rd	D	SJ	C	33.8	-0.1	0.827	-0.003	40.0	-0.2	NO
6	East Brokaw Rd / I-880 SB Ramps	E	SJ/CMP	D	43.1	0.0	0.827	-0.001	53.1	0.0	NO
7	East Brokaw Rd / I-880 NB Ramps	E	SJ/CMP	C	21.8	0.1	0.647	-0.001	29.4	0.0	NO
8	Junction Ave / Project Driveway 1	D	SJ	D	34.0	34.0	0.008	0.008	0.0	0.0	NO

Figure 11: Background Plus Project Traffic Volumes



5.4 Intersection Queue Analysis

For project study intersections with a left-turn and/or right-turn storage lane, a queue analysis was evaluated for each study scenario. The project would not increase the intersection vehicle queue and does not create an adverse effect.

The proposed project driveways are located approximately 400-feet north and 350-feet east of the Junction / Dado intersection. Due to this close spacing from the intersection, the vehicle queues at the proposed project driveway were evaluated. The 95th percentile outbound queue at the project driveway is anticipated to be up to 50-feet (2 car length) for the Background Plus Project scenario during the AM and PM peak. This maximum queue would extend into proposed drive aisle. Vehicles exiting the proposed driveway would be able to access Junction Avenue and Dado Street when there are sufficient gaps generated between platooning vehicles. From the trip distribution presented in Section 4, the number of vehicles exiting the site for the PM peak hour is 19 trips which is equivalent to an outbound rate of 1 vehicle every 3.1-minutes. The driveway vehicle queue is not expected to create an adverse effect to on-site traffic operations.

5.5 Adverse Effects and Improvements

This section discusses significant transportation project adverse effects identified under Project and Cumulative Plus Project conditions. Per City guidelines in the 2018 Transportation Analysis Handbook, proposed mitigation measures to address negative adverse effects at a study intersection should prioritize improvements related to alternative transportation modes, parking measures, and/or TDM measures with secondary improvements that increase vehicle capacity to the transportation network.

Project Intersection Adverse Effects

Based on City and CMP intersection operation threshold criteria described in Section 1.3, the project is not anticipated to generate an adverse effect to the study intersections during the Background Plus Project scenario.

North San Jose Area Development Traffic Fees

Based on the North San Jose Traffic Impact Fee Plan, traffic impact fees are based on PM peak-hour trip-making characteristics of the particular land use proposed for development in North San Jose. The PM peak hour is used because it is the PM peak hour during which traffic conditions are the worst. The total increase in PM peak hour trips with the anticipated development was estimated to be 41,300. The traffic impact fee is determined by calculating the cost per vehicle trip for the anticipated growth by dividing the total cost of improvements ($519 million minus $59 million = $460 million) by the increase in peak hour trips (41,300) to come up with $11,138 per trip. The cost is then distributed upon each of the land uses based on their trip generating characteristics determined based on the following rates:

- Single-Family Residential 0.6279 trips per unit
- Multi-Family Residential 0.5024 trips per unit
- Industrial Uses 0.9371 trips per square feet
- Regional Commercial Uses 1.3119 trips per square feet
- Hotels 302.7754 trips per room

Multiplying the cost per trip figure times each of the rates determines the applicable fee for each land use. In order to completely fund the cost of the improvements at the time of actual construction, the fees should be escalated annually in an amount of 3.3%, which represents the average increase in the Consumer Price Index as reported by the U.S. Department of Labor for the previous 20 years (1985-2004) for the San Francisco-Oakland-San Jose Metropolitan Statistical Area.

The project would be required to contribute traffic fees based on net generated project PM peak hour trips. The project would generate up to 30 net PM trips with a project size of 141,510 square-feet of warehouse and would be responsible for paying the corresponding traffic fee for an industrial land use. The final traffic fee would be coordinated between the project applicant and the City.

6 LTA SITE ACCESS AND CIRCULATION

This chapter describes the local transportation analysis including site access and on-site circulation review, effects on bicycle, pedestrian, and transit facilities, construction operations, and neighborhood interface.

6.1 Driveway Site Access

Site access and circulation for the project is based on the latest site plan prepared by AO Architects included in the **Appendices**. The 2256 Junction project provides on-site parking spaces for commercial delivery vans, trucks and employee staff. The at-grade parking lot is accessed by two driveways along Junction Avenue and two driveways along Dado Street. One driveway along Dado Street provides exclusive access for inbound semi-trailer truck shipments and the other driveway along Dado Street provides access for delivery van loading and deliveries.

The proposed project driveway on Junction Avenue is situated approximately 400-feet north of the Junction Avenue / Dado Street intersection while the closest Dado Street driveway is located approximately 350-feet east of the intersection. Per City guidance, driveways should be a minimum of 150 feet from any intersection, and the project satisfies this standard. The proposed driveway location optimizes sight distance and spacing for the proposed site plan. To improve vehicle sight distance of approaching pedestrians and bicycles on Junction Avenue and Dado Street, it is recommended to provide low clearance landscaping between the back of curb on both sides of the driveway.

Per City Municipal Code 20.90.100 and Table 20-220, the minimum width of the proposed two-way drive aisle is 26-feet. The truck driveways at the project site are at least 32-feet wide while the employee driveways on Junction and Dado Street are at least 26-feet wide to provide sufficient vehicle clearance. The standard parking spaces on-site are dimensioned 9-feet by 18-feet while the truck parking spaces are dimensioned 10-feet by 53-feet which satisfy City parking standards.

Vehicles accessing the project driveways would be allowed to make turns in and out the site when there are sufficient vehicle gaps along Junction Avenue and Dado Street. From the queue analysis results summarized in Section 5, inbound vehicle queues and delays are not expected to be significant issues. For outbound vehicles, on-site vehicle queues are expected during the AM and PM peak due to a combination of inherent unpredictability of vehicle arrivals at driveways, and the random occurrence of gaps in traffic; however, these conditions are typical of driveways in industrial areas.

6.2 Passenger Vehicle and Delivery Van Access and Circulation

Vehicle maneuverability and access for the parking garage was analyzed using AutoTURN software which measures design vehicle swept paths and turning through simulation and clearance checks. A passenger car design from the American Association of State Highway and Transportation Officials (AASHTO) was assessed for the internal parking garage levels.

Analysis using the AASHTO template revealed that passenger vehicles could adequately access the driveway, maneuver through the parking lot, and park in the stalls without conflicting into other vehicles or stationary objects. The proposed layout provides sufficient vehicle clearance.

For delivery vans accessing the loading area, a SU-30 truck design vehicle was assumed to provide a conservative analysis. This larger size truck and typical delivery vans would be able to access the project site without conflict

6.3 Heavy Vehicle Truck Access and Circulation

Delivery trucks and heavy vehicles are currently prohibited from stopping or parking along Junction Avenue and Dado Street along the project frontage. All delivery activity for the project would occur on-site in the designated loading areas.

Per City Municipal Code 20.90.410, a building intended for use by a manufacturing plant, storage facility, warehouse facility, goods display facility, retail store, wholesale store, market, hotel, hospital, mortuary, laundry, dry cleaning establishment, or other use having a floor area of 10,000 square-feet or more shall provide a minimum of one (1) off-street loading space, plus one additional such loading space for each 20,000 square-feet of floor area. The project provides at least 13 truck parking spaces and 13 loading dock spaces and satisfies the City requirement.

The STAA truck based on AASHTO and the Caltrans Highway Design Manual was assumed as the maximum size delivery truck that would be allowed due to truck route and maneuverability constraints in the North San Jose area and at the project driveway. Fire apparatus and garbage trucks were also checked for site access, and these vehicle dimensions were based on NCHRP 659 – Guide for the Geometric Design of Driveways.

STAA delivery trucks would be able to maneuver on Junction Avenue and Dado Street adjacent to the project site. A delivery truck would be able to enter either designated truck driveway to load/unload and exit the site without conflict.

Garbage and recycling bins are anticipated to be located near the loading docks or in a designated trash enclosure within the parking lot. Waste collection vehicles would be able to enter the project driveway to pick up bins and exit the site without conflict.

In the event of an emergency, it is assumed that fire apparatus vehicles will stage in the project parking lot, along Junction Avenue, or along Dado Street. Existing fire hydrants on Dado Street and on the northeast corner of the Junction/Dado intersection provides direct fire access for emergency personnel. The project driveways are 26-feet wide minimum, provide at least 10-feet high clearance, and satisfies the 20-foot horizontal and 10-foot- vertical minimum access clearances from the 2016 CA Fire Code.

Figure 12 thru **Figure 16** show site access and vehicle turn templates at the project driveway and on-site parking garage for the design vehicles described above.

Figure 12: Passenger Vehicle Access

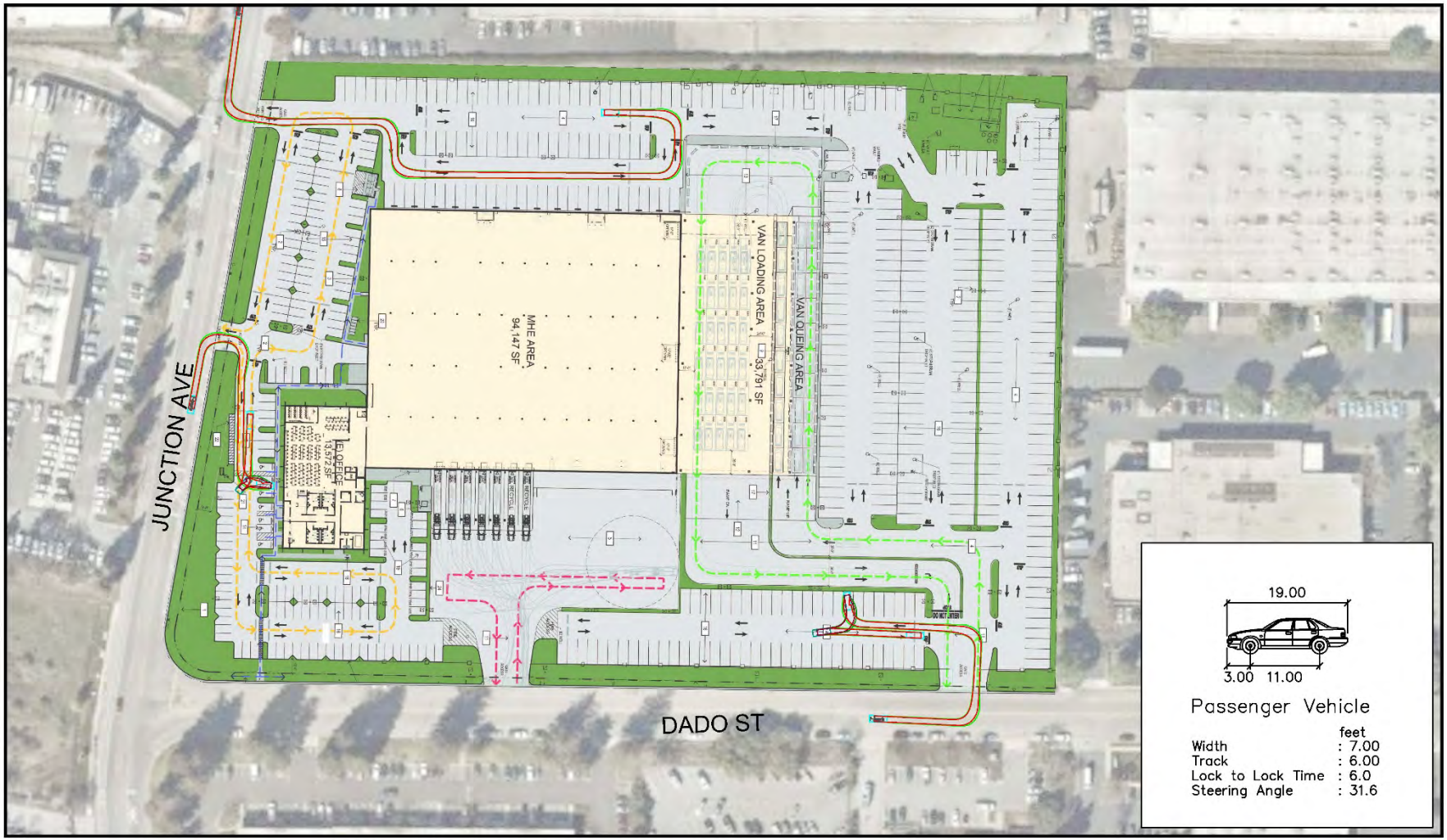


Figure 13: Delivery Truck Vehicle Access

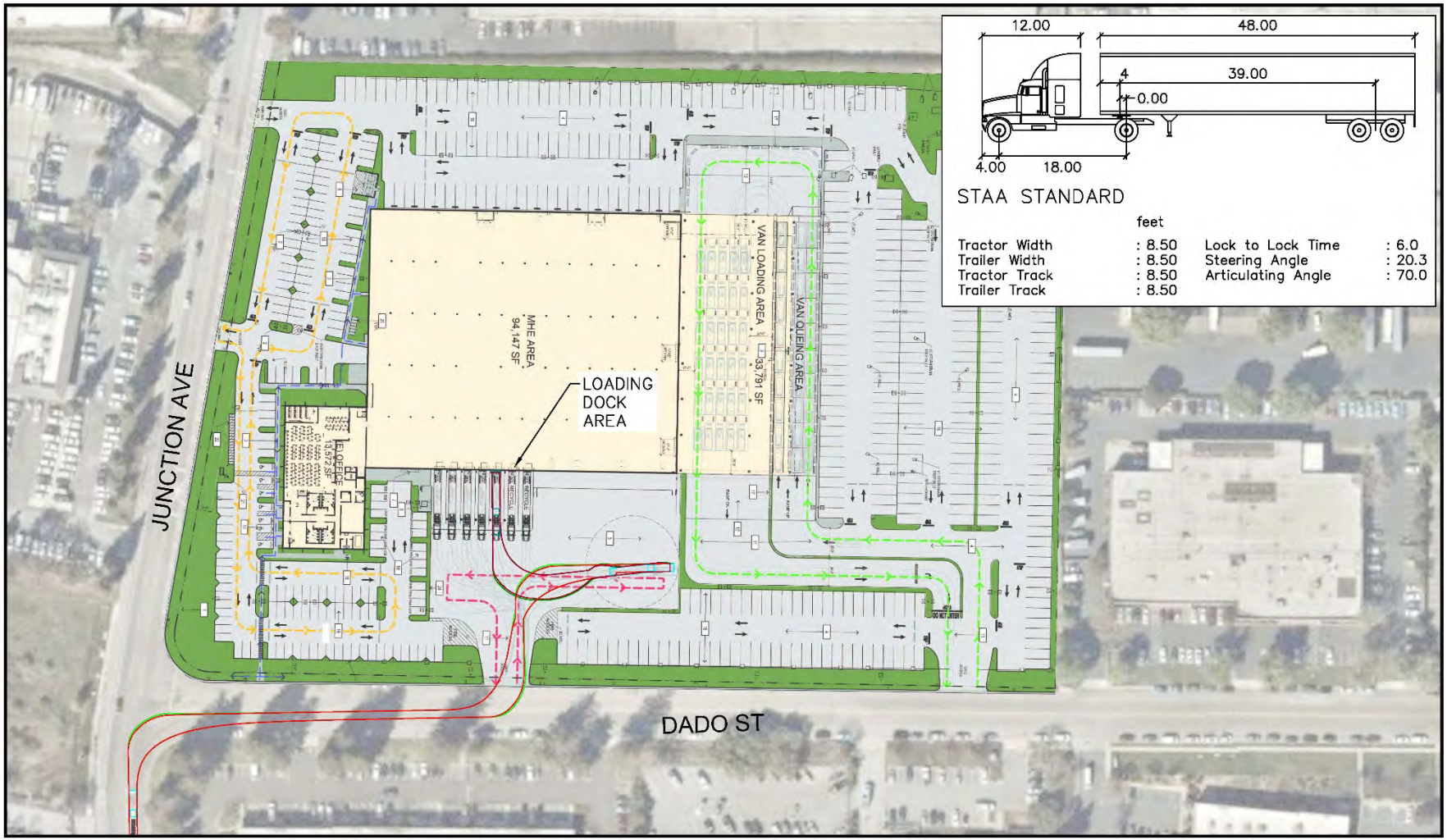


Figure 14: Delivery Van Vehicle Access

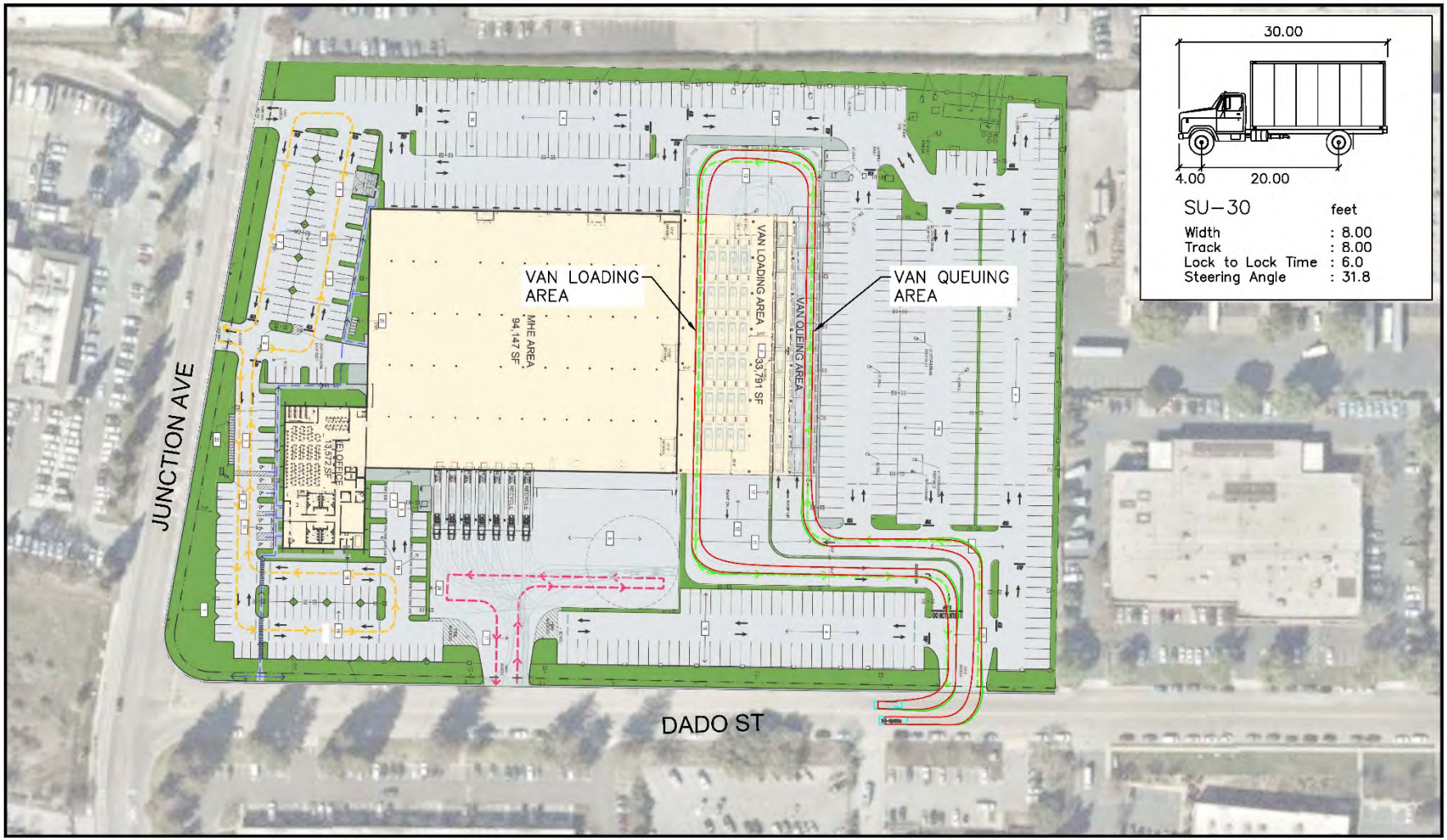


Figure 15: Garbage Truck Access

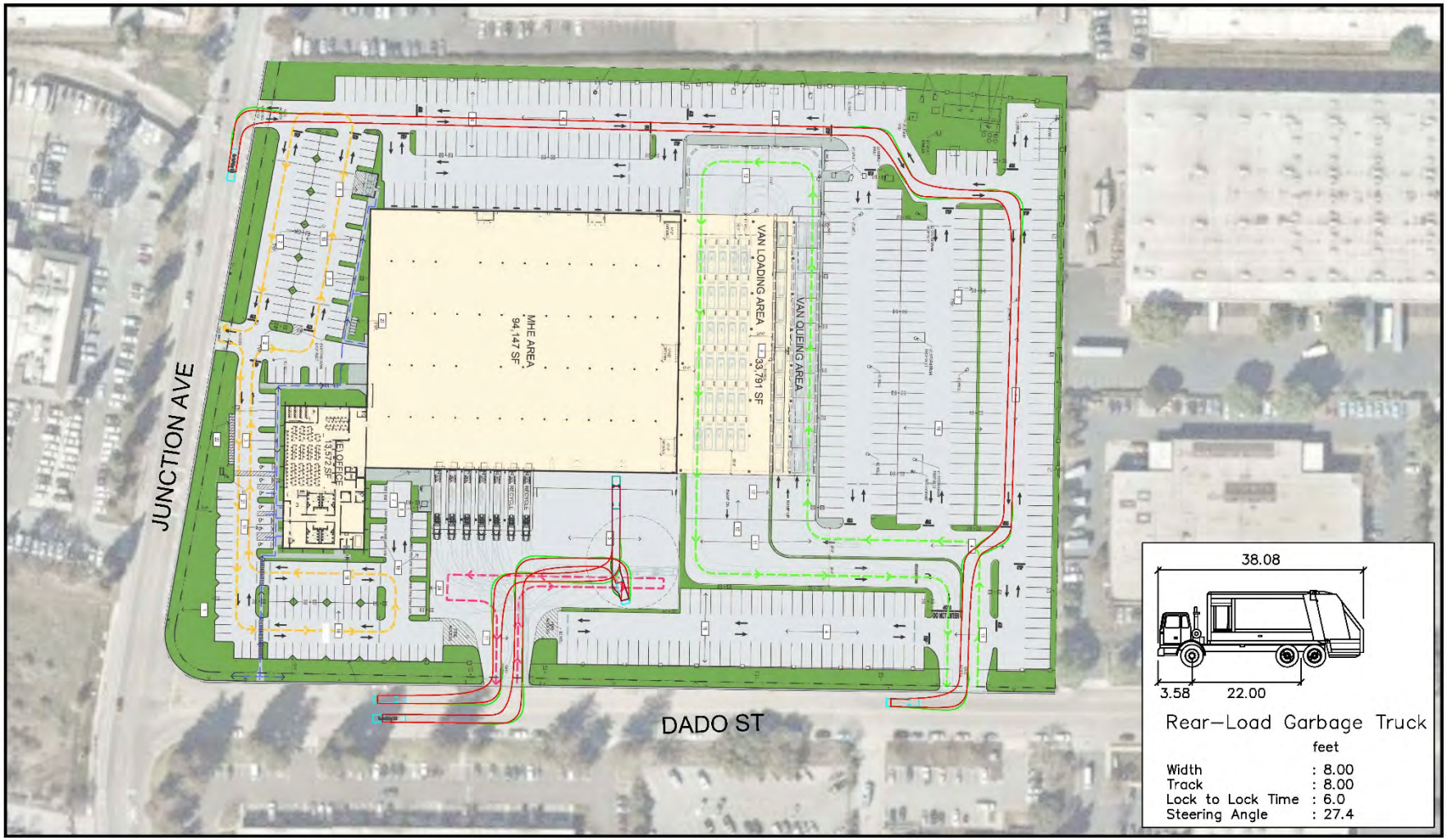
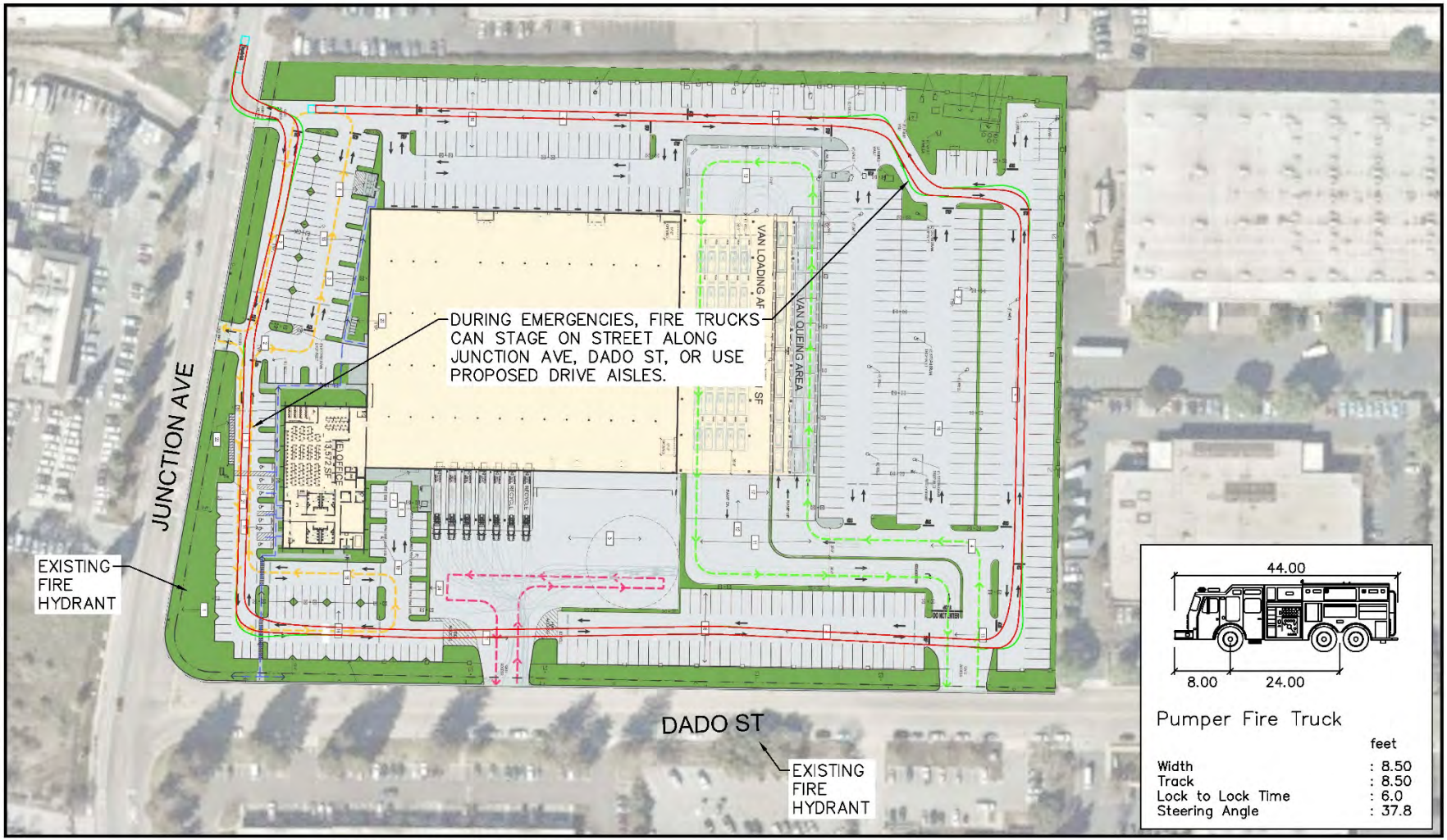


Figure 16: Fire Truck Access



6.4 Vehicle Sight Distance Analysis

A preliminary stopping sight distance and intersection sight distance analysis was conducted to determine the feasibility of the proposed project driveway location. The AASHTO methodology was used in this analysis. The sight distance needed under various assumptions of physical conditions and driver behavior is directly related to vehicle speeds and to the resultant distances traversed during perception-reaction time and braking.

Stopping sight distance is defined as the sum of reaction distance and braking distance. The reaction distance is based on the reaction time of the driver while the braking distance is dependent upon the vehicle speed and the coefficient of friction between the tires and roadway as the vehicle decelerates to a complete stop. This sight distance analysis indicates the minimum visibility that is required for an approaching vehicle to stop safely if a vehicle from the project driveway enters or exits the approaching road. The driver should also have an unobstructed view of the intersection, including any traffic-control devices, and sufficient lengths along the intersecting road to permit the driver to anticipate and avoid potential collisions.

For vehicles entering Junction Avenue or Dado Street from the proposed project driveway, the AASHTO method evaluates sight distance from a vehicle exiting the driveway to a vehicle approaching from either direction. The intersection sight distance is defined along intersection approach legs and across their included corners known as departure sight triangles. These specified areas should be clear of obstructions that might block a driver's view of potentially conflicting vehicles. Intersection sight distance is measured from a point 3.5-feet above the existing grade (driver's eye) along the potential driveway to a 3.5-foot object height in the center of the approaching lane on Junction Avenue and Dado Street. A vehicle setback in a stopped position from the edge of shoulder was assumed for determining intersection sight distance.

Minimum sight distance criteria for the potential driveways along Junction Avenue and Dado Street was determined from the AASHTO Geometric Design of Highways and Streets 7th Edition (Green Book). For the purposes of this analysis, a design speed of 45 mph (40 mph posted speed limit) was assumed along Junction Avenue and Dado Street. AASHTO standard time gap variables for passenger cars stopped on the proposed project driveways were used. Based on the existing traffic control, minimum sight distance was calculated for the following scenarios:

- Stopping Sight Distance on Junction Avenue and Dado Street
- Intersection Sight Distance Case B – Stop control at the proposed project driveways
    - Case B1 – Left turn from the minor road
    - Case B2 – Right turn from the minor road

From Table 9-7 and Table 9-9 of the Green Book, the minimum stopping sight distances is 360 feet along Junction Avenue and Dado Street. For Case B1 left turn, the intersection sight distance is 500 feet assuming approach grades of 3 percent or less at 45 mph. For Case B2 right turn, the intersection sight distance is 430 feet assuming approach grades of 3 percent or less at 45 mph.

A site visit was taken to measure the available sight distance and departure sight triangles at the proposed driveway locations. From a 5-foot setback from the edge of travel way, the measured available sight distance is over 500 feet in each direction on Junction Avenue and Dado Street. **Table 10** summarizes the intersection and stopping sight distance at the project driveways.

Table 10: Project Driveway Sight Distance

Type	Design Speed (MPH)	Required Sight Distance (ft)	Actual Sight Distance (ft)	Sufficient Sight Distance?
SSD on Primary Road	45	360	>500	Yes
ISD Case B1 (Left Turn)	45	500	>500	Yes
ISD Case B2 (Right Turn)	45	430	>500	Yes

The proposed project driveway locations satisfy the minimum stopping sight distance required for all approaches on Junction Avenue and Dado Street. Vehicles on the road will have sufficient sight distance to react and stop safely if a vehicle from the project driveway enters or exits the road. Vehicles entering Junction Avenue and Dado Street from the project driveway will also have sufficient intersection sight distance to make a left or right turn onto the road per AASHTO scenarios.

Overall, the proposed project driveway location is feasible and provides sufficient sight distance for traffic conditions. To ensure that exiting vehicles can see bikes and vehicles traveling on the roadway, no parking striped with red curb should be established immediately adjacent to the project driveways. An exhibit comparing the design and measured available stopping and intersection sight distances is shown in **Figure 17**.

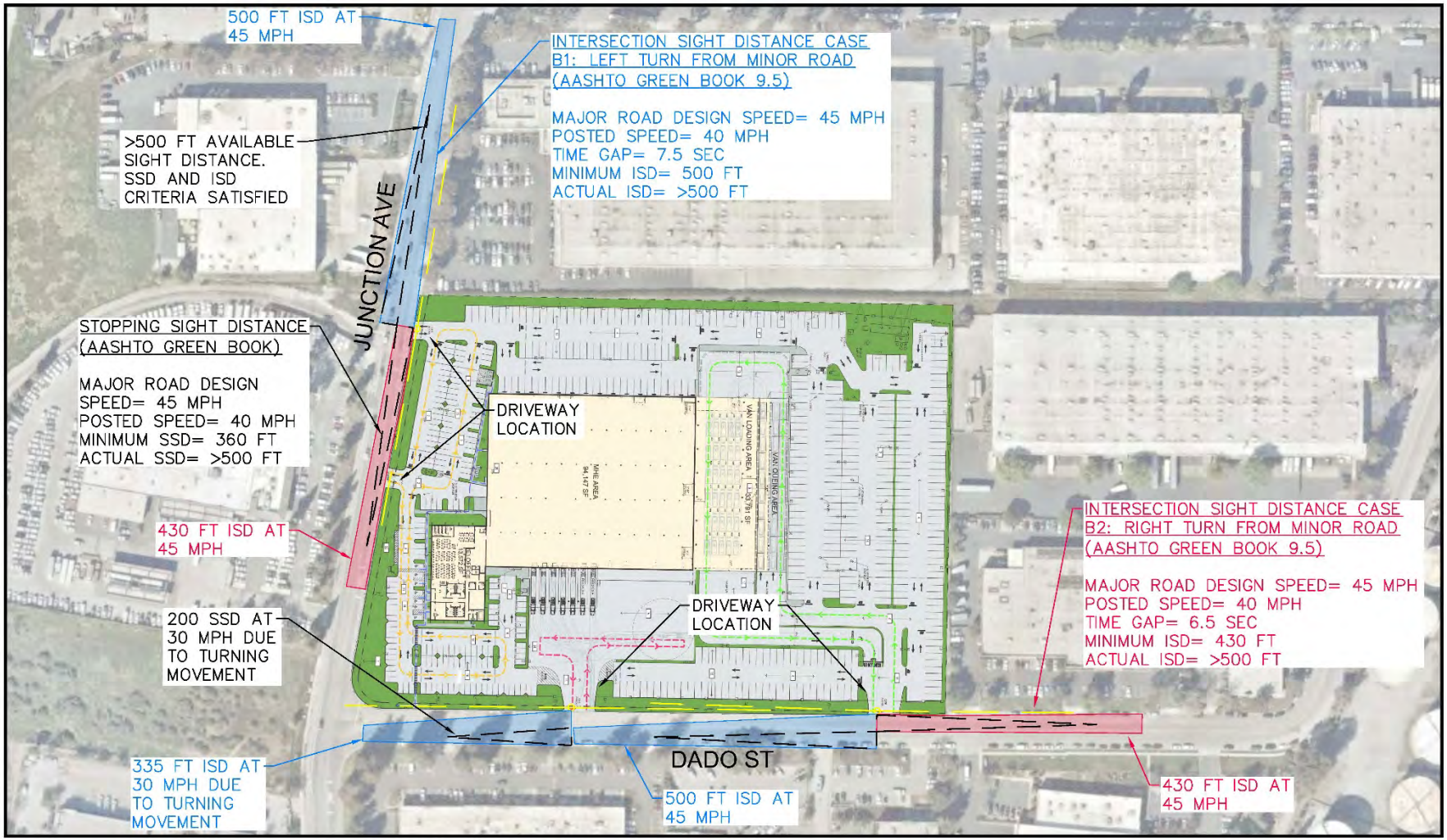
6.5 Bicycle, Pedestrian, and Transit Access

The project site plan does not plan to provide transportation improvements to the existing sidewalk, bicycle, and transit facilities along the project frontages on Junction Boulevard and Dado Street.

As stated in Section 2, the existing network of sidewalks and crosswalks in the study area are relatively sparse with limited connectivity and walkable routes to nearby bus stops, retail, and other points of interest in the immediate North San Jose area. In addition, the nearest transit stops to the project site are located at the intersections of Brokaw / Junction and Montague / Trimble which are over half a mile away. As for bicycle connectivity, Junction Boulevard provides Class II bike lanes in the northbound and southbound direction which frontage the project site.

Due to the function and operational characteristics of the proposed warehouse use, the 2256 Junction project is not anticipated to add substantial project trips to the existing pedestrian, bicycle, or transit facilities in the area. Therefore, the project would not create an adverse effect to the existing pedestrian, bicycle, or transit facility operations.

Figure 17: Sight Distance Analysis



6.6 Vehicle and Bicycle Parking

Per the Chapter 20.90.060, Table 20-190, and Table 20-210 of the San Jose Municipal Code, the proposed 2256 Junction project land uses are required to provide the following minimum off-street parking:

- Warehouse (141,510 square feet total gross floor area and up to 106 total full-time tenant employees during a 24-hour operating period)
    - Two (2) vehicle parking spaces minimum for warehouses under 5,000-square feet of total gross floor area
    - Five (5) vehicle parking spaces minimum for warehouses between 5,000 and 25,000-square feet of total gross floor area
    - One (1) vehicle parking space per 5,000-square feet of total gross floor area for warehouses greater than 25,000-square feet
    - One (1) bicycle parking space per 10 full-time employees
    - One (1) shower for warehouses between 85,000 and 425,000-square feet
    - One (1) motorcycle parking space for every 10 code-required auto parking spaces

Based on these City ratios, the project is required to provide a minimum total of 30 off-street vehicle parking spaces and 11 bicycle parking spaces for the proposed industrial warehouse use.

The project site plan proposes a total parking supply of 552 vehicle spaces to accommodate tenant employees, delivery vans, and delivery service partners. Of the total parking supply, 172 spaces are reserved for full-time employees and 380 spaces are reserved for delivery van operations. Per the VMT reduction strategies identified in Section 3, the project will implement on-site bicycle facilities and up to 14 bicycle parking spaces (2 short-term racks and 12 long-term locker spaces) to satisfy the City's bike requirement for full-time employees.

The project site plan is anticipated to provide sufficient vehicle and bicycle parking per the City's off-street parking requirement. **Table 11** summarize the vehicle and bicycle parking requirements for the 2256 Junction project.

Table 11: Project Parking Summary

PARKING REQUIREMENTS						
GUIDELINE SOURCE	PARKING TYPE	LAND USE	PARKING STANDARD PER GUIDELINE	PROJECT SIZE	VEHICLE PARKING (# SPACES)	BICYCLE PARKING (# SPACES)
San Jose Municipal Code	Vehicle	Warehouse	1 vehicle space per 5,000 SQFT	149,800	30	-
	Bicycle	Warehouse	1 bicycle space per 10 full time employees	106	-	11
				Total On-Site Parking Requirement	**30**	**11**
PARKING SUPPLY						
				Proposed Parking Supply (Based on latest Project site plan)	552	14
				Total Proposed On-Site Parking Supply	**552**	**14**
				Sufficient On-Site Parking?	**YES**	**YES**
NOTES:						
SQFT = Square Feet; GFA = Gross Floor Area;						
Proposed parking supply based on project description from applicant						
Parking requirements based on San Jose Municipal Code						

6.7 Construction Operations

During project construction, the existing curb, gutter, and sidewalk along the project frontage would be widened and replaced. A Traffic Management Plan (TMP) should be developed for construction activities at the site. Prior to construction, the contractor should place temporary signs indicating closed sidewalk facilities, install a temporary screened fence around the work area, protect existing features/utilities, and repair any damaged improvements within public right of way per City of San Jose requirements.

Pedestrians and bicyclists would potentially not be able to travel on the east side of Junction Avenue or the north side of Dado Street next to the project during construction and would need to use the existing bike facilities on the opposite side of the street. Bikes and pedestrians travelling on Junction Avenue could have to detour through Zanker Road or Charcot Avenue to avoid the construction site and potential sidewalk/bike lane closure.

Vehicle access along Dado Street near the project may also be restricted during construction. The westbound through lane on Dado Street could be temporary closed, and the contractor should install appropriate MUTCD traffic control devices to warn approaching vehicles of temporary lane closures and lane merges prior to the project site.

It is assumed that a temporary construction vehicle parking and stage construction area would be provided on the project site. This potential parking area would require the contractor to obtain necessary approval, right of entry, and permits with the City and property owners prior to construction.

6.8 Neighborhood Interface

The proposed project is in the existing North San Jose industrial district in the City. There are no public schools or residential neighborhoods within the vicinity of the project site. On-street parking in the surrounding roadway network is restricted. From the parking analysis, the project's on-site parking would satisfy the City's vehicle parking standard, and the project is not anticipated to create an adverse effect to the existing parking condition in the surrounding area.

From recent site visits and field observations, sidewalk and curb returns are provided in the residential neighborhoods. The existing sidewalks in the area are four to six feet wide and have either rolled or raised concrete curbs. ADA compliant curb ramps are also provided in the residential neighborhoods. The project is not anticipated to create an adverse effect to the existing pedestrian and bicycle facilities in the surrounding area.

7 CONCLUSIONS AND RECOMMENDATIONS

Project Vehicle Miles Traveled (VMT) Impacts and Mitigation Measures

The project consists of industrial land use and does not meet any screening criteria for VMT analysis exemption as a small infill project of 30,000 square-feet of total gross floor area or less per City guidelines. The proposed project was evaluated in the VMT tool assuming development of 141,510 square-feet of industrial use.

The City's VMT per employee threshold for industrial land uses is 14.37. For the surrounding land use area, the existing VMT is 16.08. The proposed project is anticipated to generate a VMT per employee of 15.85. The evaluation tool estimates that the project would exceed the City's industrial VMT per employee threshold and would trigger a VMT impact.

Since the project VMT exceeds the industrial thresholds of significance, the project will need to mitigate its CEQA transportation impact by implementing a variety of City approved VMT reduction strategies such as alternative transportation options and transportation demand management (TDM) measures. The applicant is proposing to implement VMT reduction strategies, and with these measures, the project could achieve a VMT per employee of 14.37 which is below the City threshold. Final implementation of the proposed VMT reduction strategies and TDM plan would need to be coordinated between the project applicant and the City.

Project Trip Generation

To provide a conservative and representative analysis, trip generation for the proposed delivery station warehouse was determined from site operation data provided by the project applicant. These project trips were verified with trip generation data from the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition*. The project trips provided by the project applicant were found to be more conservative than ITE rates and representative of the intended use, and therefore were used to determine net peak hour vehicle trips.

Per the 2018 *Transportation Analysis Handbook*, trip generation reduction credits were applied to the project including location-based mode-share, potential VMT reduction strategies, and existing land uses. Development of the proposed project with all applicable trip reductions and credits is anticipated to generate a net total of 291 additional daily trips, 0 AM, and 30 PM peak hour trips to the roadway network. Baseline vehicle trips for the proposed project (excluding trip adjustments) are anticipated to generate a gross total of 700 daily trips, 3 AM peak hour trips, and 64 PM peak hour vehicle trips.

Intersection Traffic Operations

Due to the COVID-19 situation, traffic counts for Year 2020 was determined from historic count data. Weekday AM and PM peak hour intersection turning movement volumes for the existing study intersections were obtained from City of San Jose 2016 traffic data and applying a 1% compound growth rate. Traffic conditions for each study intersection was analyzed during the 7:00 – 9:00 AM and 4:00 – 6:00 PM peak hours of traffic which represent the most heavily congested traffic on a typical weekday. The study intersections were assessed under Existing, Background and Project scenarios. City of San José and Valley Transportation Authority Congestion Management Program intersection level of service standards and significance thresholds were used to determine adverse effects caused by the project. The project is not anticipated to generate an adverse effect to the study intersections during the Background Plus Project scenario.

Based on the North San Jose Traffic Impact Fee Plan, the project would be required to contribute traffic fees based on net generated project PM peak hour trips. The project would generate up to 30 net PM trips with a project size of 141,510 square-feet of warehouse and would be responsible for paying the corresponding traffic fee for an industrial land use. The final traffic fee would be coordinated between the project applicant and the City.

Vehicle Site Access and Circulation

The 2256 Junction project provides on-site parking spaces for commercial trucks and employee staff, and the at-grade parking lot is accessed by two driveways along Junction Avenue and two driveways along Dado Street. Project driveways for truck access are at least 32-feet wide while driveways for passenger vehicle and van access are at least 26-feet wide. The proposed driveway locations optimize sight distance and spacing for the proposed site plan. Passenger vehicles, delivery vans, trucks, refuse, and emergency vehicles are able to circulate within the project site without conflict.

Pedestrian, Bicycle, and Transit Site Access

The project site plan does not plan to provide transportation improvements to the existing sidewalk, bicycle, and transit facilities along the project frontages on Junction Boulevard and Dado Street. Due to the function and operational characteristics of the proposed warehouse use, the 2256 Junction project is not anticipated to add substantial project trips to the existing pedestrian, bicycle, or transit facilities in the area. Therefore, the project would not create an adverse effect to the existing pedestrian, bicycle, or transit facility operations.

On-Site Vehicle and Bicycle Parking

Per the City's parking standard, the project site is anticipated to provide sufficient on-site vehicle and bicycle to meet the City's minimum parking requirement.

Neighborhood Interface

The project's on-site parking would satisfy the City's vehicle parking standard, and the project is not anticipated to create an adverse effect to the existing parking condition in the surrounding area. The project is not anticipated to create an adverse effect to the existing pedestrian and bicycle facilities in the surrounding area.

8 APPENDICES

Appendix A – 2256 Junction Boulevard Site Plan
Appendix B – San Jose VMT Evaluation Tool Summary Report
Appendix C – Trip Generation Comparison (ITE and Project Collected Data)
Appendix D – Daily Project Vehicle Operations
Appendix E – Existing Driveway Counts
Appendix F – San Jose Approved Trip Inventory
Appendix G – TRAFFIX Intersection Operations Analysis

Appendix A – 2256 Junction Boulevard Site Plan

PROPERTY OWNER / APPLICANT:

Duke Realty
200 Spectrum Center Drive, Suite 1600
Irvine, CA 92618
Contact: Robert W. Close
P: 949.797.7060
C: 954.882.8793

AGENT / REPRESENTATIVE:

AO Architects
144 N. Orange Street
Orange, CA 92666
Contact: Steve Griego Jr. – Project Manager
steveg@aoarchitects.com
P: 714.639.9860

ARCHITECT:

AO Architects
144 N. Orange Street
Orange, CA 92666
Contact: Eric Aubort
eaubort@aoarchitects.com
P: 714.639.9860

CIVIL ENGINEER:

Kier + Wright
163 Technology Drive, #150
Irvine, CA 92618
Contact: Garrett Readler, P.E., Q.S.D.
greadler@kierwright.com
P: 949.508.0202

STRUCTURAL ENGINEER:

HSA Associates, Inc.
1906 W. Garvey Ave., Suite 200
West Covina, CA 91790
Contact: Jitesh Nalagotla, P.E.
jitesh@hsaassociates.com
P:562.521.9931

LANDSCAPE ARCHITECT:

Scott Peterson Landscape Architect
2883 Via Racheros Way
Fallbrook, CA 92028
Contact: Scott Peterson
scott@splainc.com
P: 760.842.8993

M.E.P. Engineer:

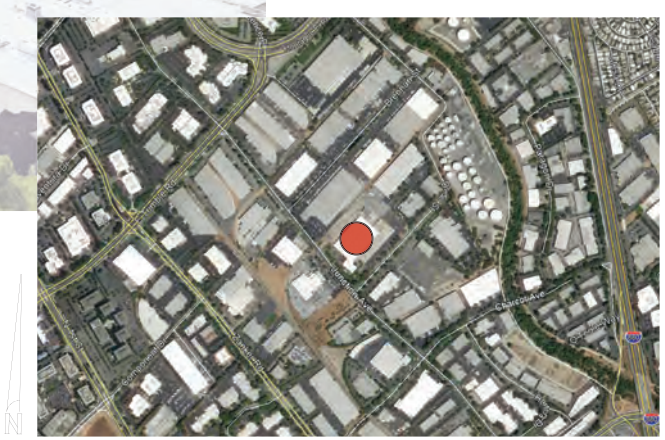
RPM Engineers, Inc.
102 Discovery, 150
Irvine, CA 92618
P: 714.540.1229

Mechanical:
Issac Lee, P.E.
issacl@rpmpe.com

Plumbing:
Mike Gallardo
mikeg@rpmpe.com

Electrical:
Frank Sheng, P.E.
franks@rpmpe.com

SHEET INDEX:



VICINITY MAP - NOT TO SCALE

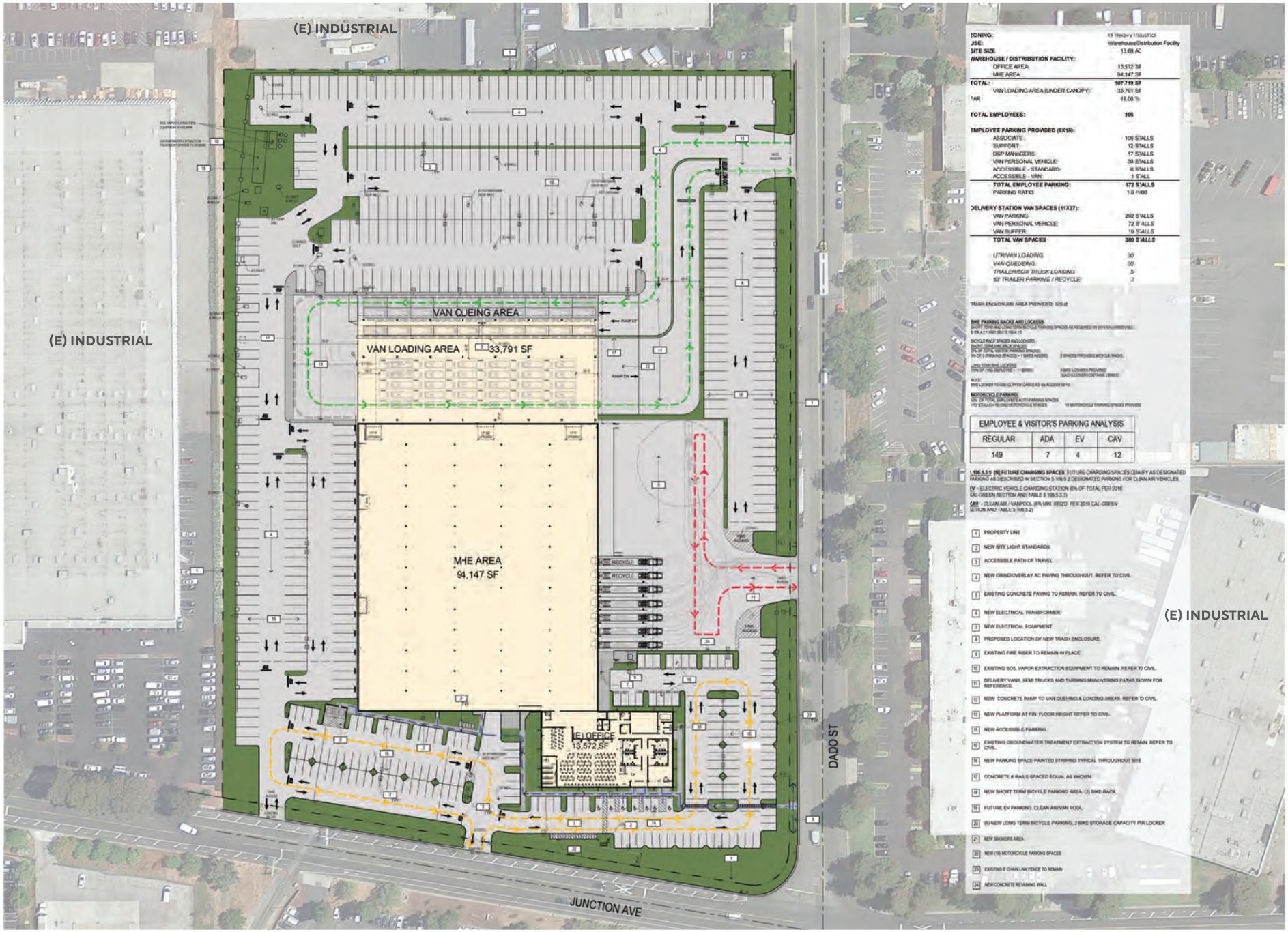
SITE DEVELOPMENT USE PERMIT SUBMITTAL

DELIVERY STATION: DD01 SAN JOSE

2256 JUNCTION AVE., SAN JOSE, CA

11/06/2020

Architecture.
Design.
Relationships.



DELIVERY STATION: DD01 SAN JOSE

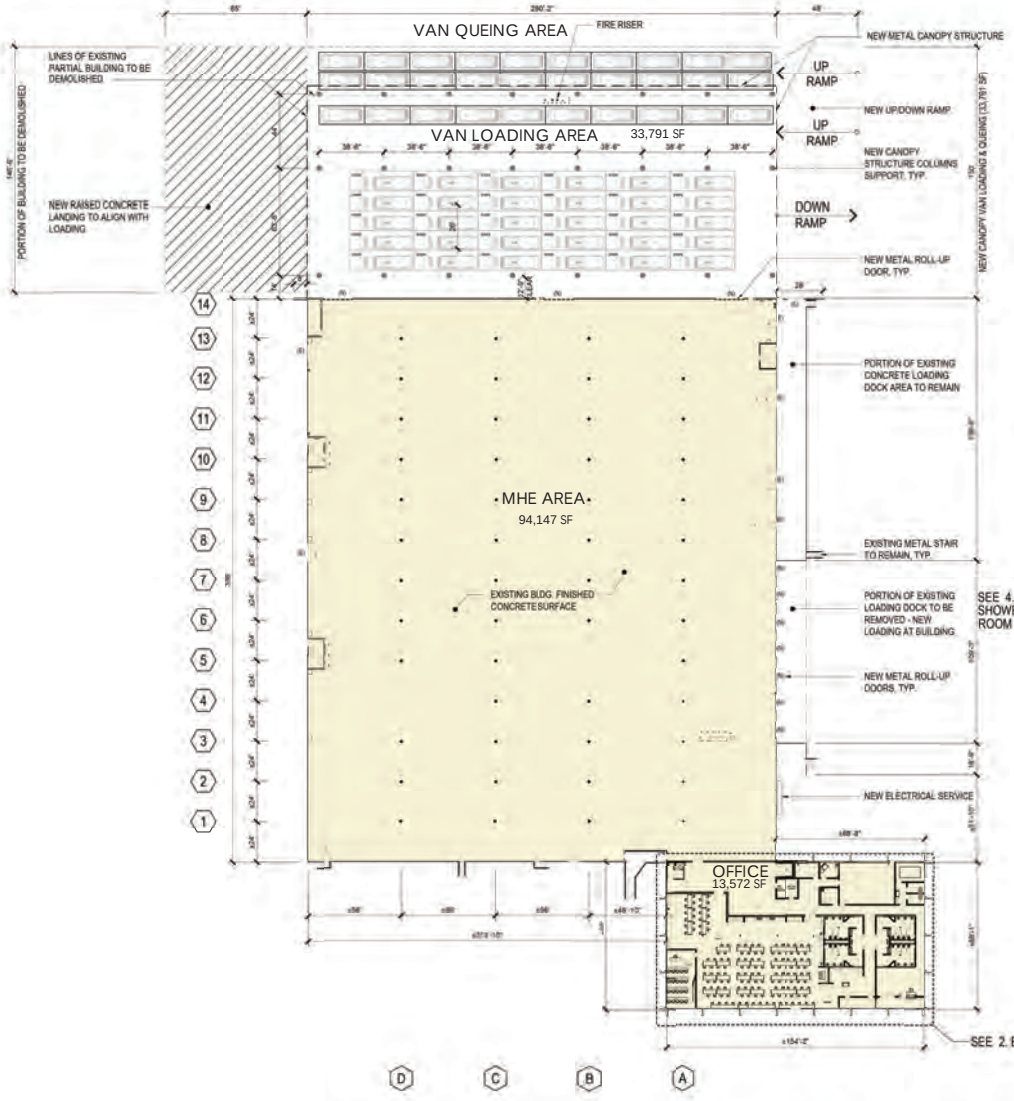
2256 JUNCTION AVE., SAN JOSE, CA

SITE PLAN

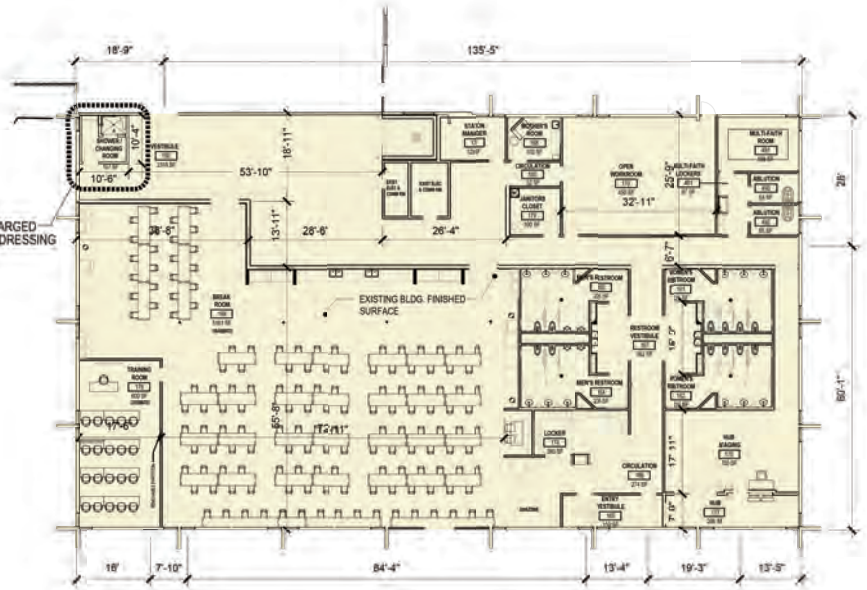
Architecture. Design. Relationships.

01

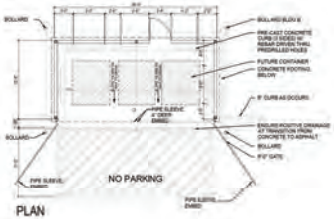
Scale 1" = 50'-0"
Job No. 2020-054
Date 2020-11-04



1. OVERALL FLOOR PLAN

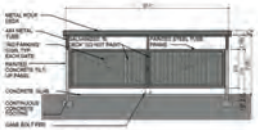


2. ENLARGED OFFICE CORE PLAN

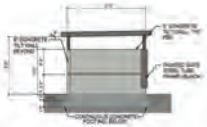


PLAN

BACK ELEVATION

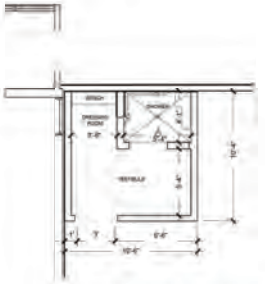


FRONT ELEVATION



SIDE ELEVATION

3. TRASH ENCLOSURE



4. SHOWER & DRESSING ROOM

DELIVERY STATION: DD01 SAN JOSE

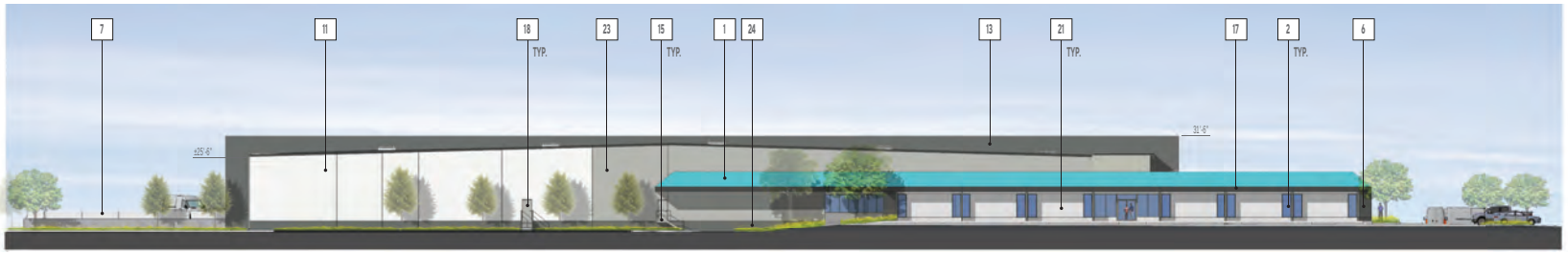
2256 JUNCTION AVE., SAN JOSE, CA

OVERALL FLOOR PLAN &
ENLARGED OFFICE CORE PLAN

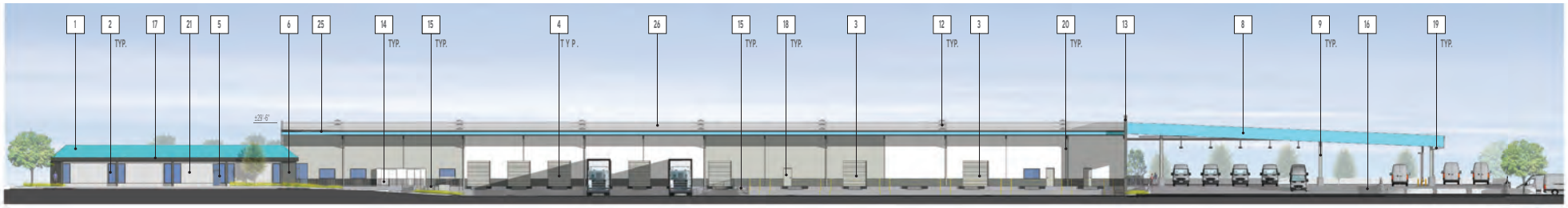
Architecture.
Design.
Relationships.

02

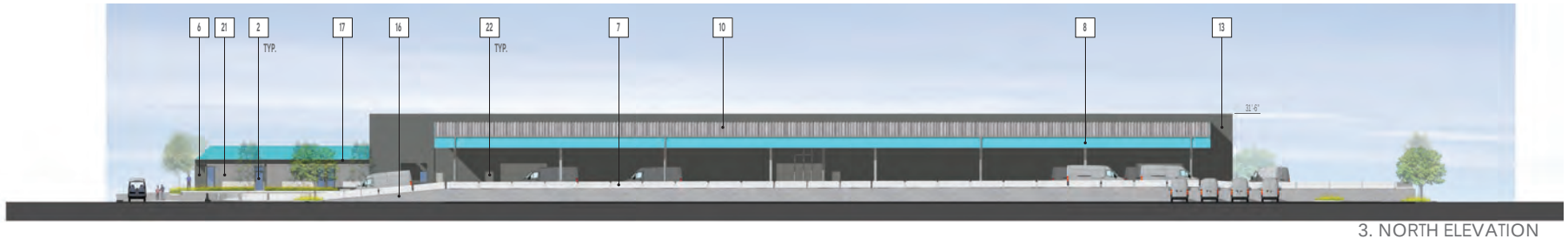
Scale 3/64" = 1'-0"
Job No. 2020-054
Date 2020-11-04



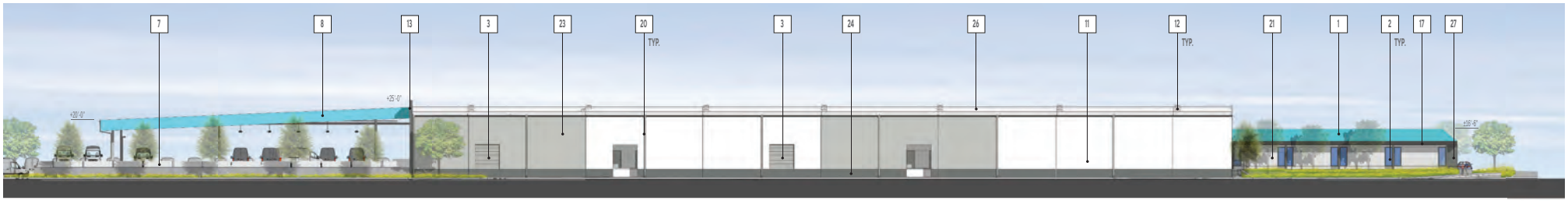
1. SOUTH ELEVATION



2. EAST ELEVATION



3. NORTH ELEVATION



4. WEST ELEVATION

COLOR & MATERIAL:

1	NEW METAL ROOF OVER EXISTING ROOF STRUCTURE , COLOR LIGHT BLUE	12	EXISTING ROOF DOME LIGHT TO REMAIN	23	EXISTING CONCRETE TILT-UP WALL, PAINTED GRAY
2	EXISTING ALUMINUM DOOR & GLAZING TO REMAIN	13	NEW PARAPET WALL, PAINTED DARK GRAY	24	EXISTING CONCRETE TILT-UP WALL, PAINTED DARK GRAY
3	EXISTING LOADING ROLL-UP METAL DOOR TO REMAIN, COLOR GRAY	14	NEW METAL HANDRAIL, COLOR GRAY	25	NEW ACCENT PAINT, LIGHT BLUE
4	NEW LOADING ROLL-UP METAL DOOR, COLOR GREY	15	EXISTING METAL STAIRS TO REMAIN	26	EXISTING ROOF DECK
5	NEW ALUMINUM DOOR & GLAZING	16	NEW RAMP		
6	EXISTING BRICK WALL, PAINTED DARK GRAY	17	NEW ACCENT PAINT, DARK GREY		
7	CONCRETE K-RAIL	18	EXISTING DOOR TO REMAIN, PAINTED CHARCOAL GRAY		
8	NEW CANOPY WITH METAL CLADDING, COLOR LIGHT BLUE	19	NEW GUTTER & DOWNSPOUT, COLOR GRAY		
9	NEW CANOPY STRUCTURAL STEEL COLUMN WITH CONCRETE BASE	20	EXISTING GUTTER & DOWNSPOUT TO REMAIN, COLOR GRAY		
10	NEW METAL ROOF DECK - COLOR GRAY	21	EXISTING BRICK WALL, PAINTED WHITE		
11	EXISTING CONCRETE TILT-UP WALL-PAINTED WHITE	22	NEW DOOR, PAINTED GRAY		

16' 8' 0' 16' 32'
SCALE : 1/16" = 1'-0"

DELIVERY STATION: DD01 SAN JOSE

2256 JUNCTION AVE., SAN JOSE, CA

ELEVATIONS

Architecture. Design. Relationships.

03

Scale 1/16" = 1'-0"
Job No. 2020-054
Date 2020-11-04

1. NORTHEAST CORNER VIEW

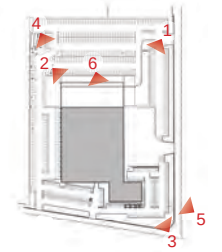
2. NORTHWEST CORNER VIEW

3. SOUTHEAST CORNER VIEW

4. NORTHWEST CORNER VIEW

5. SOUTHEAST AERIAL VIEW

6. NORTHWEST CANOPY VIEW



DELIVERY STATION: DD01 SAN JOSE

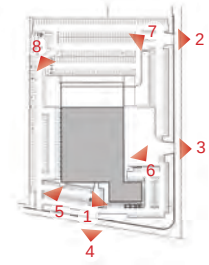
2256 JUNCTION AVE., SAN JOSE, CA

PERSPECTIVE VIEWS

Architecture. Design. Relationships.

04

Scale 0" = 00'
Job No. 2020-054
Date 2020-11-04



DELIVERY STATION: DD01 SAN JOSE

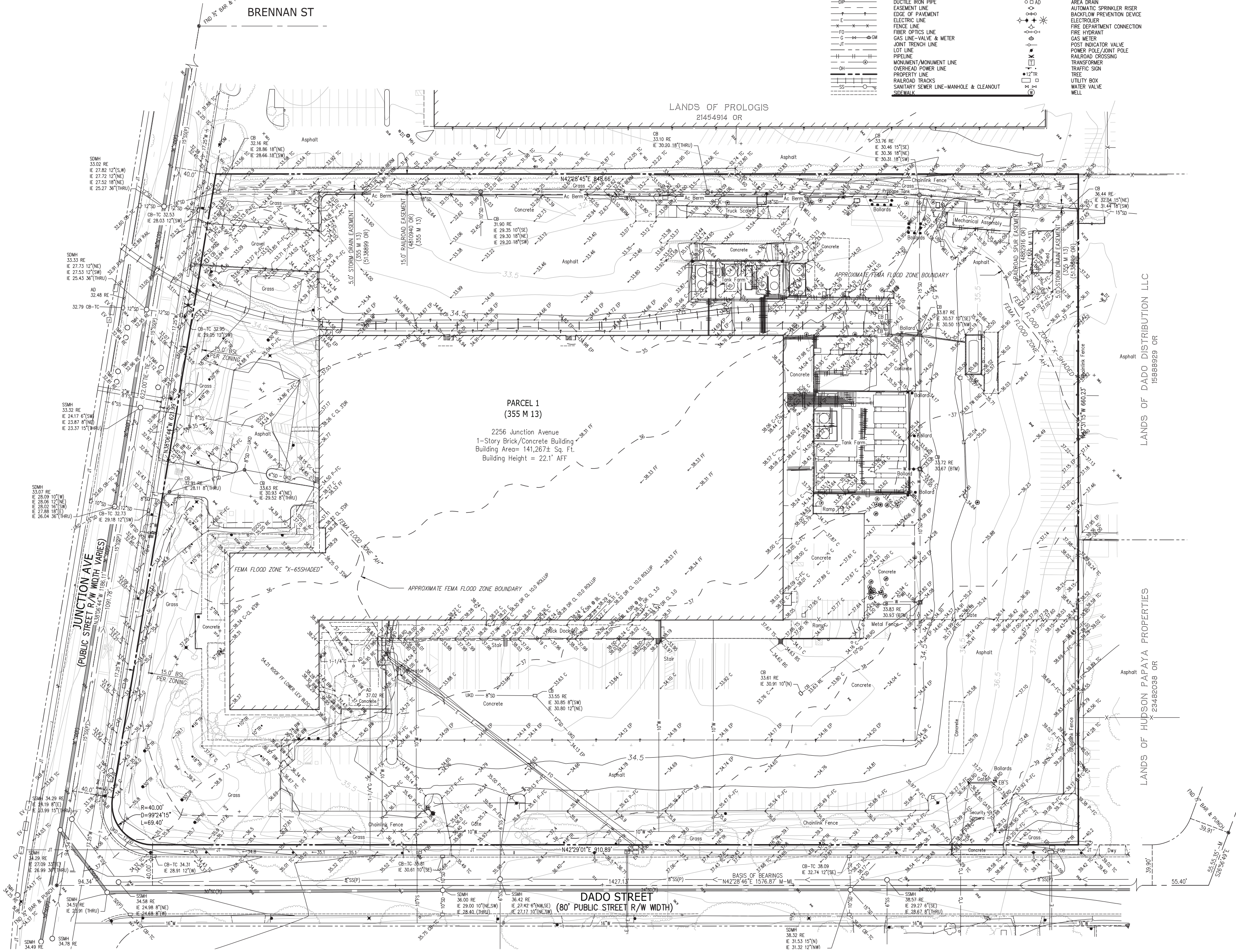
2256 JUNCTION AVE., SAN JOSE, CA

SITE REFERENCE PHOTOS

Architecture. Design. Relationships.

05

Scale 1" = 40'-0"
Job No. 2020-054
Date 2020-11-04



LEGEND

BUILDING LINE	SPOT ELEVATION
CENTERLINE	STORM DRAIN LINE–MANHOLE & CATCH BASIN
CONCRETE/BLOCK WALL	STORM DRAIN LINE–MANHOLE & CATCH BASIN
CONCRETE CURB	STORM DRAIN LINE OVER 24"DIAMETER
CONCRETE CURB & GUTTER	TELEPHONE LINE
CONTOUR LINE	UNKNOWN UTILITY LINE
DRIVEWAY	WATER LINE & VALVE
DUCTILE IRON PIPE	AREA DRAIN
EASEMENT LINE	AUTOMATIC SPRINKLER RISER
EDGE OF PAVEMENT	BACKFLOW PREVENTION DEVICE
ELECTRIC LINE	ELECTROLIER
FENCE LINE	FIRE DEPARTMENT CONNECTION
FIBER OPTICS LINE	FIRE HYDRANT
GAS LINE–VALVE & METER	GAS METER
JOINT TRENCH LINE	POST INDICATOR VALVE
LOT LINE	POWER POLE/JOINT POLE
PIPELINE	RAILROAD CROSSING
MONUMENT/MONUMENT LINE	TRANSFORMER
OVERHEAD POWER LINE	TRAFFIC SIGN
PROPERTY LINE	TREE
RAILROAD TRACKS	UTILITY BOX
SANITARY SEWER LINE–MANHOLE & CLEANOUT	WATER VALVE
SIDEWALK	WELL

NORTH

0 20 40 80 120

Scale 1" = 40'

ABBREVIATIONS

AD	AREA DRAIN	GB	GRADE BREAK
ASR	AUTO SPRINKLER RISER	GEN	GENERATOR
BEG	BEGIN	GM	GAS MARKER/METER
BFP	BACK FLOW PREVENTER	GRN	GROUND
BL	BUILDING LINE	HCR	HANDICAP RAMP
BLDG	BUILDING	HT	HEIGHT
BLRD	BOLLARD	JT	JOINT TRENCH
BR	BOTTOM OF RAMP	LIP	LIP OF GUTTER
BSL	BUILDING SETBACK LINE	LT	LIGHT
BW	BACK OF WALK	MH	MANHOLE
C–CL	CONCRETE AT CENTERLINE	MW	MONITORING WELL
C–FC	CONCRETE AT FACE OF CURB	N	NORTH
CB	CATCH BASIN	P–FC	PAVEMENT AT FACE OF CURB
CL	CENTER LINE	PIV	POST INDICATOR VALVE
DDCV	DOUBLE DETECTOR CHECK VALVE	RD	ROOF DRAIN
DI	DRAIN INLET	RE	RIM ELEVATION
DIP	DUCTILE IRON PIPE	RR	RAILROAD RAIL
DOCK	DOCK	RRX	RR CROSSING ARM/SIGN
DR	DOOR	S	SOUTH
DWY	DRIVEWAY	SD	STORM DRAIN
E	EAST	SDJB	STORM DRAIN JUNCTION BOX
EB	ELECTRIC BOX	SDMH	STORM DRAIN MANHOLE
EP	EDGE OF PAVEMENT	SL	STREET LIGHT
EV	ELECTRICAL VAULT	SLB	STREET LIGHT BOX
FAB	FACE OF ASPHALT BERM	SSCO	SANITARY SEWER CLEAN OUT
FDC	FIRE DEPARTMENT CONNECTION	SSMH	SANITARY SEWER MANHOLE
FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY	TB	TELEPHONE BOX
FF	FINISH FLOOR	TC	TOP OF CURB
FH	FIRE HYDRANT	TMH	TELEPHONE MANHOLE
FMH	FIBRE OPTIC MANHOLE	TR	TREE
FND	FOUND	TRANS	TRANSFORMER
FOB	FIBER OPTIC BOX	UB	UNKNOWN UTILITY BOX
FOM	FIBER OPTIC MARKER	UKD	UNKNOWN DESTINATION
GAS	GAS LINE	W	WEST
		WM	WATER METER
		WV	WATER VALVE

NOTES

1. THIS SURVEY WAS PREPARED FROM INFORMATION FURNISHED IN A COMMITMENT FOR TITLE INSURANCE, PREPARED BY FIRST AMERICAN TITLE INSURANCE COMPANY DATED AS OF OCTOBER 18, 2019, REVISION NO. 2, POLICY NUMBER NCS–965004–CHI2, FURNISHED TO KIER & WRIGHT CIVIL ENGINEERS & SURVEYORS, INC BY DUKE REALTY ON DECEMBER 2, 2019. NO LIABILITY IS ASSUMED FOR MATTERS OF RECORD NOT STATED IN SAID REPORT THAT MAY AFFECT THE TITLE LINES, OR EXCEPTIONS, OR EASEMENTS OF THE PROPERTY.

2. ALL DISTANCES AND ELEVATIONS SHOWN HEREON ARE IN FEET AND DECIMALS THEREOF.

3. THE TYPES, LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS TOPOGRAPHIC SURVEY WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. (A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES). HOWEVER, THE ENGINEER CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES WHICH MAY BE ENCOUNTERED, BUT WHICH ARE NOT SHOWN ON THESE DRAWINGS.

4. PHYSICAL ITEMS SHOWN ON THIS SURVEY ARE LIMITED TO THOSE ITEMS VISIBLE AS OF THE DATE OF THIS SURVEY. SUBSURFACE STRUCTURES, IF ANY, ARE NOT SHOWN. SAID SUBSURFACE OBJECTS MAY INCLUDE, BUT ARE NOT LIMITED TO, CONCRETE FOOTINGS, SLABS, SHORING, STRUCTURAL PILES, UTILITY VAULTS, PIPING, UNDERGROUND TANKS, AND ANY OTHER SUBSURFACE STRUCTURES NOT REVEALED BY A SURFACE INSPECTION.

5. THE SUBJECT PROPERTY IS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) FOR SANTA CLARA COUNTY, CALIFORNIA, MAP NUMBER 06085C0068J FOR COMMUNITY NUMBER 060349 (CITY OF SAN JOSE), WITH AN EFFECTIVE DATE OF FEBRUARY 19, 2014, AS BEING LOCATED IN FLOOD ZONE "AH" & LOCATED IN FLOOD ZONE "X–SHADED".

   ACCORDING TO FEMA THE DEFINITION OF ZONE "AH" IS: FLOOD DEPTHS OF 1 TO 3 FEET (USUALLY AREAS OF PONDING); BASE FLOOD ELEVATIONS VARY BETWEEN 34.5 FEET TO 39.5 FEET

   ACCORDING TO FEMA THE DEFINITION OF ZONE "X–SHADED" IS: AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.

   INFORMATION WAS OBTAINED FROM THE CITY OF SAN JOSE, PUBLIC WORKS DEPARTMENT ON JULY 24, 2019.

6. BENCHMARK:
   CITY OF SAN JOSE BENCHMARK 166–J. 1–1/4" BRASS DISK STAMPED CSJ BM ON TOP OF CURB OF TRIMBLE ROAD, AT SOUTHEASTERLY RETURN OF TRIMBLE ROAD AT JUNCTION AVENUE. (BM SET ON 2–27–07) REVISED 6–12–07 F.B. 1375 (UPDATED TO S.C.V.W.D. BM 254 & 255. ELEVATION= 25.53, DATUM = NVGD 1929)

   (ELEVATIONS SHOWN HEREON HAVE BEEN ADJUSTED 2.733' FROM THE BENCHMARK IN ORDER TO SHOW NAVD 1988 ELEVATIONS)

7. BASIS OF BEARINGS:
   THE BEARING OF NORTH 42° 28' 46" EAST TAKEN ON THE MONUMENT LINE OF DADO STREET AS SHOWN ON THAT CERTAIN PARCEL MAP FILED FOR RECORD ON MAY 5, 1975, IN BOOK 355 OF MAPS AT PAGE 13, OFFICIAL RECORDS OF SANTA CLARA COUNTY WAS TAKEN AS THE BASIS FOR ALL BEARINGS SHOWN HEREON.

8. CORNER RECORD NOTE:
   THE DEVELOPER AND/OR CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION AND FILING OF PRE–CONSTRUCTION AND POST–CONSTRUCTION CORNER RECORDS FOR ANY MONUMENTS OR PROPERTY CORNERS SHOWN HEREON THAT MAY BE DESTROYED DURING IMPROVEMENTS TO THE SUBJECT PROPERTY AS DEFINED IN SECTION 8771(B) OF THE PROFESSIONAL LAND SURVEYORS ACT.

9. THE AERIAL MAPPING WAS PREPARED USING COMPUTER ASSISTED, PHOTOGRAMMETRIC METHODS BY COOPER AERIAL SURVEYS CO., IN PHOENIX ARIZONA. JOB NUMBER 1907031. IN AREAS OF DENSE VEGETATION, ACCURACY OF CONTOURS MAY DEVIATE FROM ACCEPTED ACCURACY STANDARDS. DATE OF PHOTOGRAPHY 07–30–2019, ORIGINAL COMPILED MAP SCALE 1"=40', CONTOUR INTERVAL 1 FOOT. THE GRID IS BASED ON PHOTOGRAMMETRIC METHODS COMPILED ON DIGITAL STEREO WORKSTATIONS USING AERIAL PHOTOGRAPHY. CONTROL SURVEY PERFORMED BY KIER & WRIGHT, LIVERMORE, CA.

5/8/2020

PREPARED BY OR UNDER THE SUPERVISION OF JOSEPH D. THOMPSON, P.L.S. 8121 — DATE

LICENSED LAND SURVEYOR JOSEPH D. THOMPSON No. 8121 STATE OF CALIFORNIA

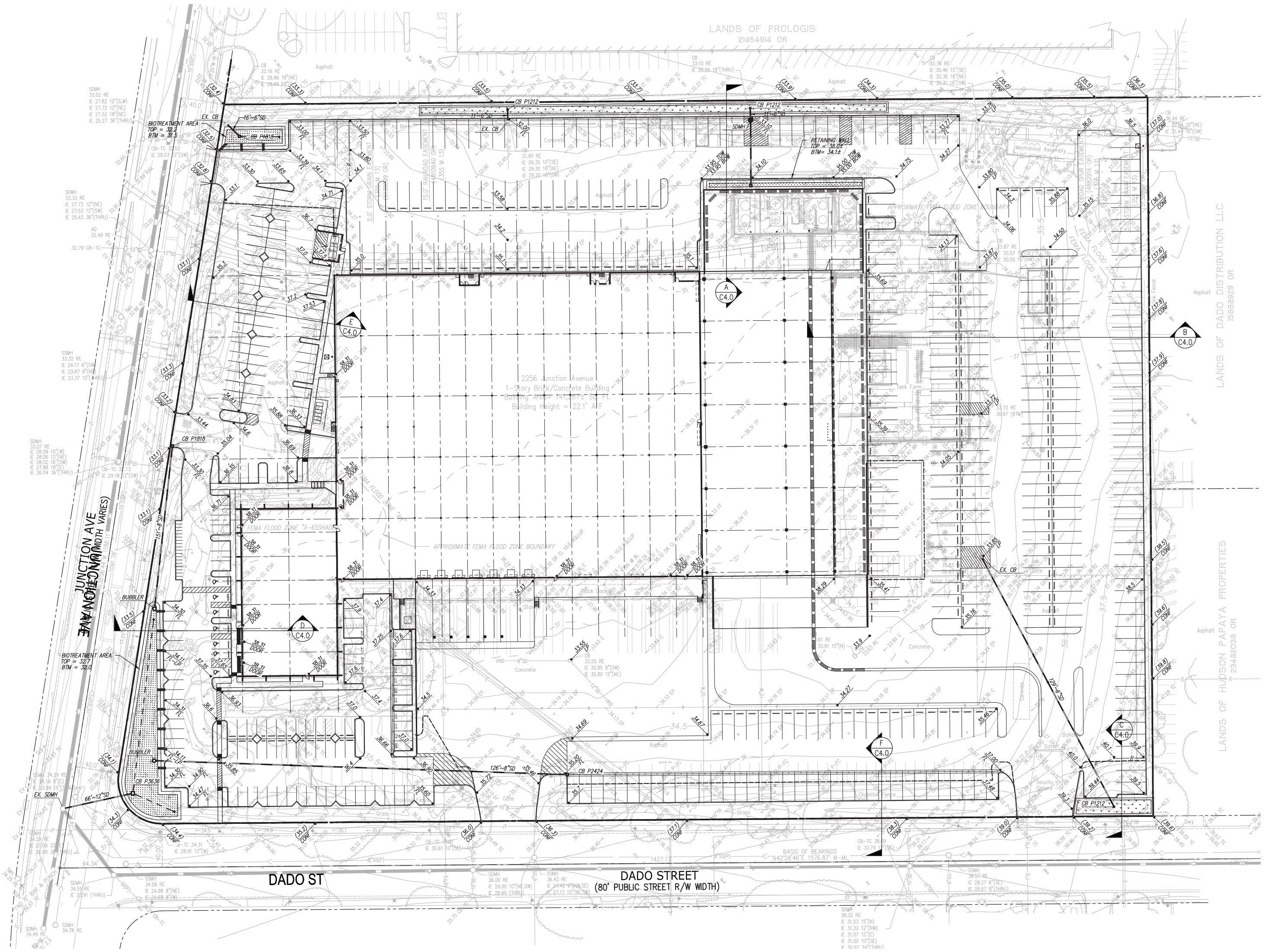
NO.	REVISION	BY

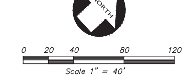
KIER+WRIGHT
163 Technology Drive
Irvine, CA 92620
Phone: (949) 508-0202
www.kierwright.com

TOPOGRAPHIC SURVEY
2256 JUNCTION AVENUE
FOR
DUKE REALTY

SAN JOSE, CALIFORNIA

DATE	AUGUST 2020
SCALE	AS SHOWN
DESIGNER	EMK
DRAWN BY	EMK
JOB NO.	A19600-2
SHEET	C1.0
OF	6 SHEETS





LEGEND

▲	AREA DRAIN
□	STORM DRAIN CATCH BASIN
■	STORM DRAIN JUNCTION BOX
●	STORM DRAIN MANHOLE
FL	FLOW LINE
FF	
PV	PAVEMENT
RE	RIM ELEVATION
23.8	SPOT ELEVATION
X"SD	STORM DRAIN LINE
TC	TOP OF CURB

NO.	REVISION	BY

KIER+WRIGHT

163 Technology Drive
Irvine, CA 92620

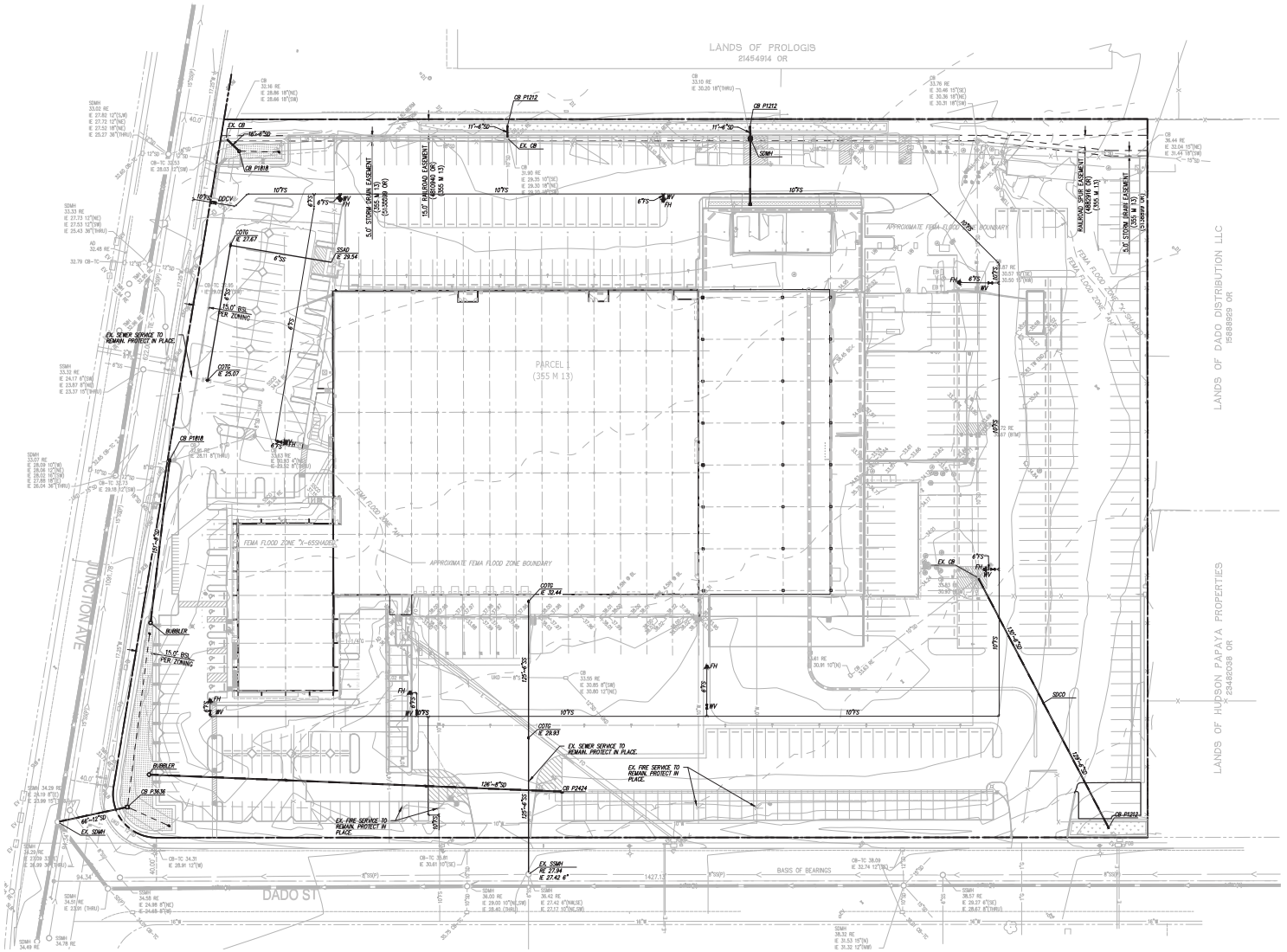
Phone: (949) 508-0202
www.kierwright.com

PRELIMINARY GRADING & DRAINAGE PLAN

2256 JUNCTION AVENUE
FOR
DUKE REALTY

SAN JOSE, CALIFORNIA

DATE	AUGUST 2020
SCALE	AS SHOWN
DESIGNER	EMK
DRAWN BY	EMK
JOB NO.	A19600-2
SHEET	C2.0
OF 6	SHEETS



NORTH

0 20 40 80 120

Scale 1" = 40'

LEGEND

ASR	AUTOMATIC SPRINKLER RISER
RE	RIM ELEVATION
TC	TOP OF CURB
W	WATER SERVICE
	EXISTING UTILITY TO BE ABANDONED BY REMOVAL
FS	FIRE SERVICE
SS	SANITARY SEWER
COTG	CLEANOUT TO GRADE
	STORM DRAIN LINE
	AREA DRAIN
	STORM DRAIN CATCH BASIN
	STORM DRAIN JUNCTION BOX
	STORM DRAIN MANHOLE
	BACK FLOW PREVENTION DEVICE
	FIRE DEPARTMENT CONNECTION
	FIRE HYDRANT & VALVE
	POST INDICATOR VALVE
SSMH	SANITARY SEWER MANHOLE
	SINGLE CHECK VALVE
SDMH	STORM DRAIN MANHOLE
	WATER METER

NO.	REVISION	BY

NO.	REVISION	BY

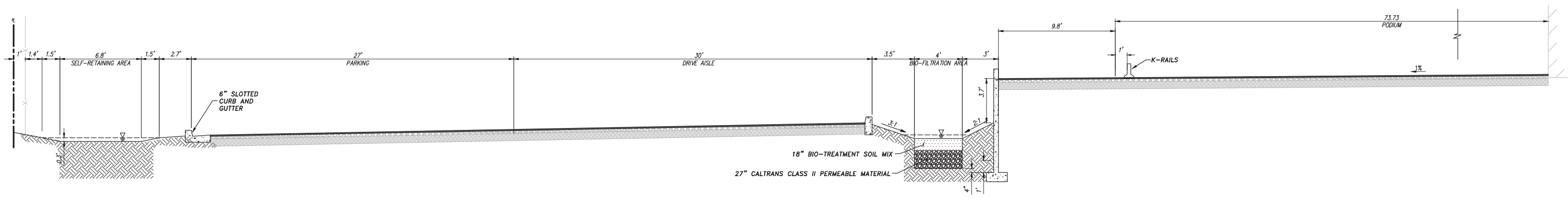
KIER+WRIGHT
163 Technology Drive
Irvine, CA 92618
Phone: (949) 559-4202
www.kierwright.com

PRELIMINARY UTILITY PLAN

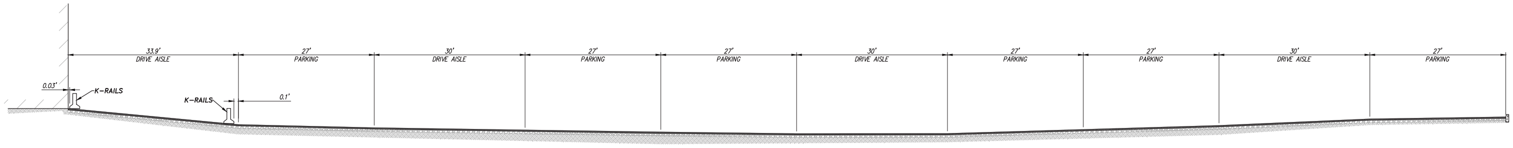
2256 JUNCTION AVENUE
FOR
DUKE REALTY

SAN JOSE, CALIFORNIA

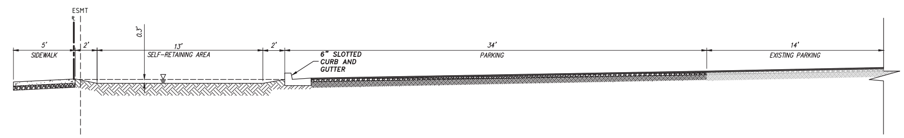
DATE	AUGUST 2020
SCALE	AS SHOWN
DESIGNER	EMK
DRAWN BY	EMK
JOB NO.	A19600-2
SHEET	C3.0
OF	6 SHEETS



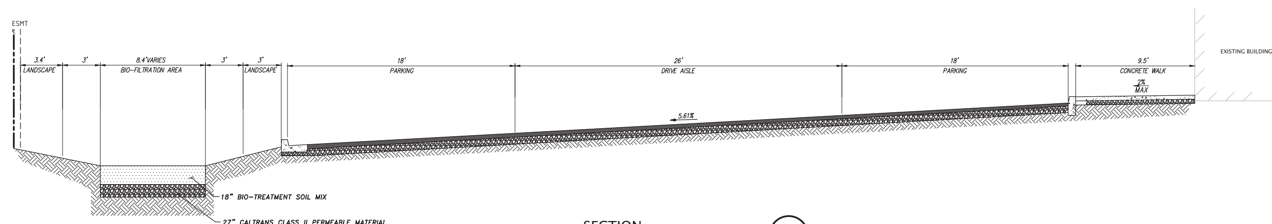
SECTION A



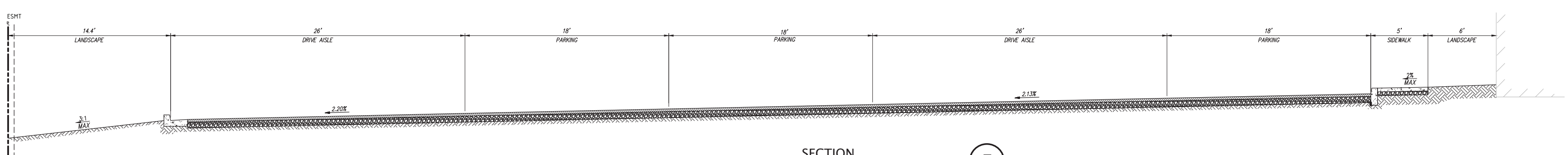
SECTION B



SECTION C



SECTION D



SECTION E

SECTION F

NO.	REVISION	BY

NO.	REVISION	BY

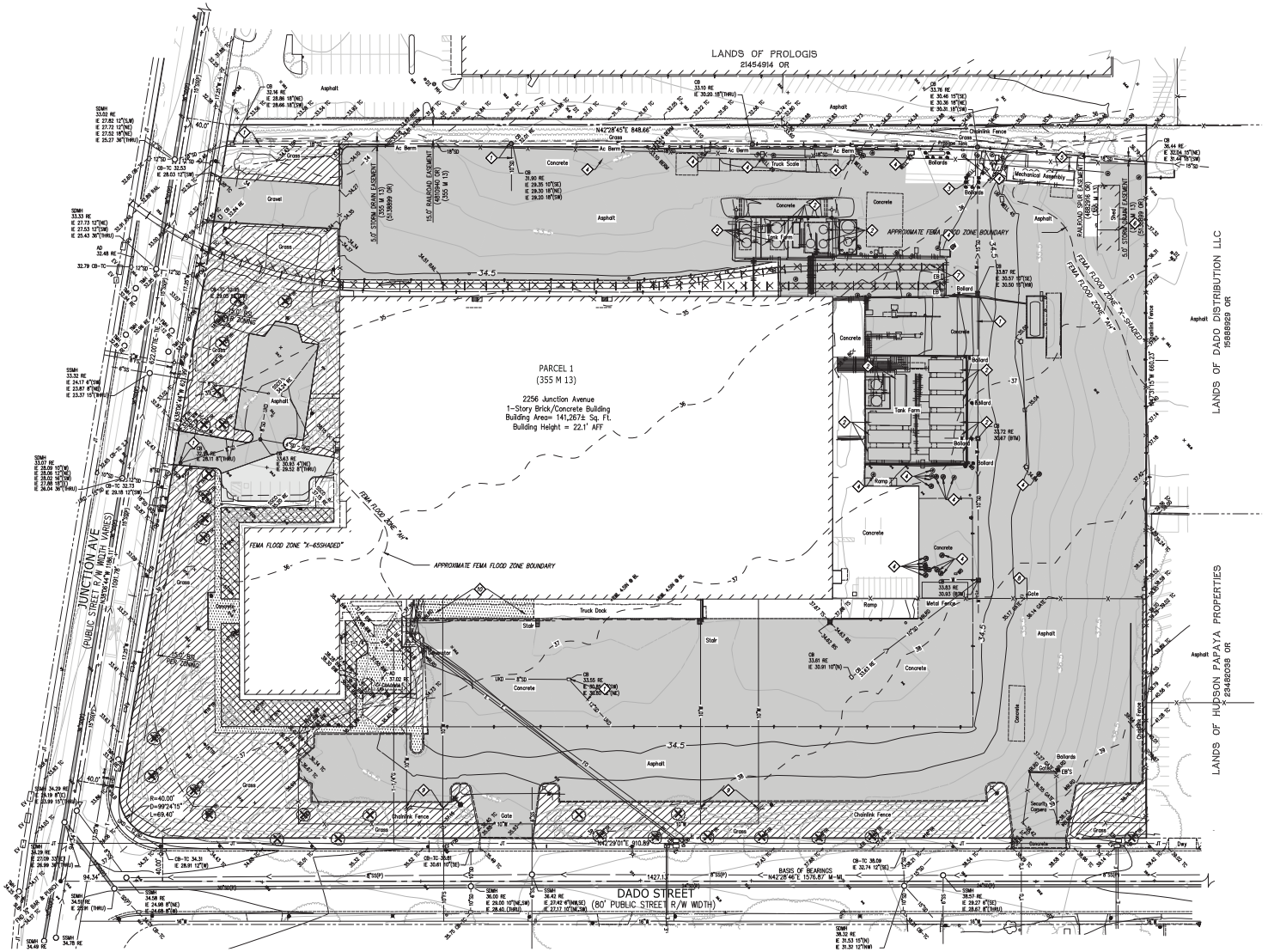
KIER+WRIGHT
163 Technology Drive
Irvine, CA 92620
Phone: (949) 508-0202
www.kierwright.com

SECTIONS

2256 JUNCTION AVENUE
FOR
DUKE REALTY

SAN JOSE, CALIFORNIA

DATE	AUGUST 2020
SCALE	AS SHOWN
DESIGNER	EMK
DRAWN BY	EMK
JOB NO.	A19600-2
SHEET	C4.0
OF 6	SHEETS



LEGEND

- EXISTING CURB & LANDSCAPE TO BE REMOVED
- MINIMUM 2" GRIND AND OVERLAY
- EXISTING AC PAVEMENT TO BE REMOVED
- EXISTING CONCRETE TO BE REMOVED
- EXISTING LANDSCAPING TO BE REMOVED
- SAWCUT LINE
- EXISTING TREE TO BE REMOVED
- UNDERGROUND UTILITIES TO BE REMOVED
- EXISTING TRACKS TO BE REMOVED
- UNDERGROUND UTILITIES TO BE ABANDONED
- PLUG AND CAP END
- 1 EXISTING STORM DRAIN SYSTEM TO REMAIN. PROTECT IN PLACE
- 2 ALL EXISTING TANKS TO BE REMOVED
- 3 EXISTING TRANSFORMER TO REMAIN
- 4 ALL MONITORING WELLS, TO BE PROTECTED IN PLACE
- 5 EXISTING MECHANICAL EQUIPMENT TO REMAIN
- 6 EXISTING SHED TO BE REMOVED
- 7 EXISTING TRACKS TO BE REMOVED
- 8 EXISTING METAL FENCE TO BE REMOVED
- 9 EXISTING PIV TO BE PROTECTED AND RELOCATED
- 10 EXISTING TRUCK DOOR TO BE DEMOLISHED

NO.	REVISION	BY

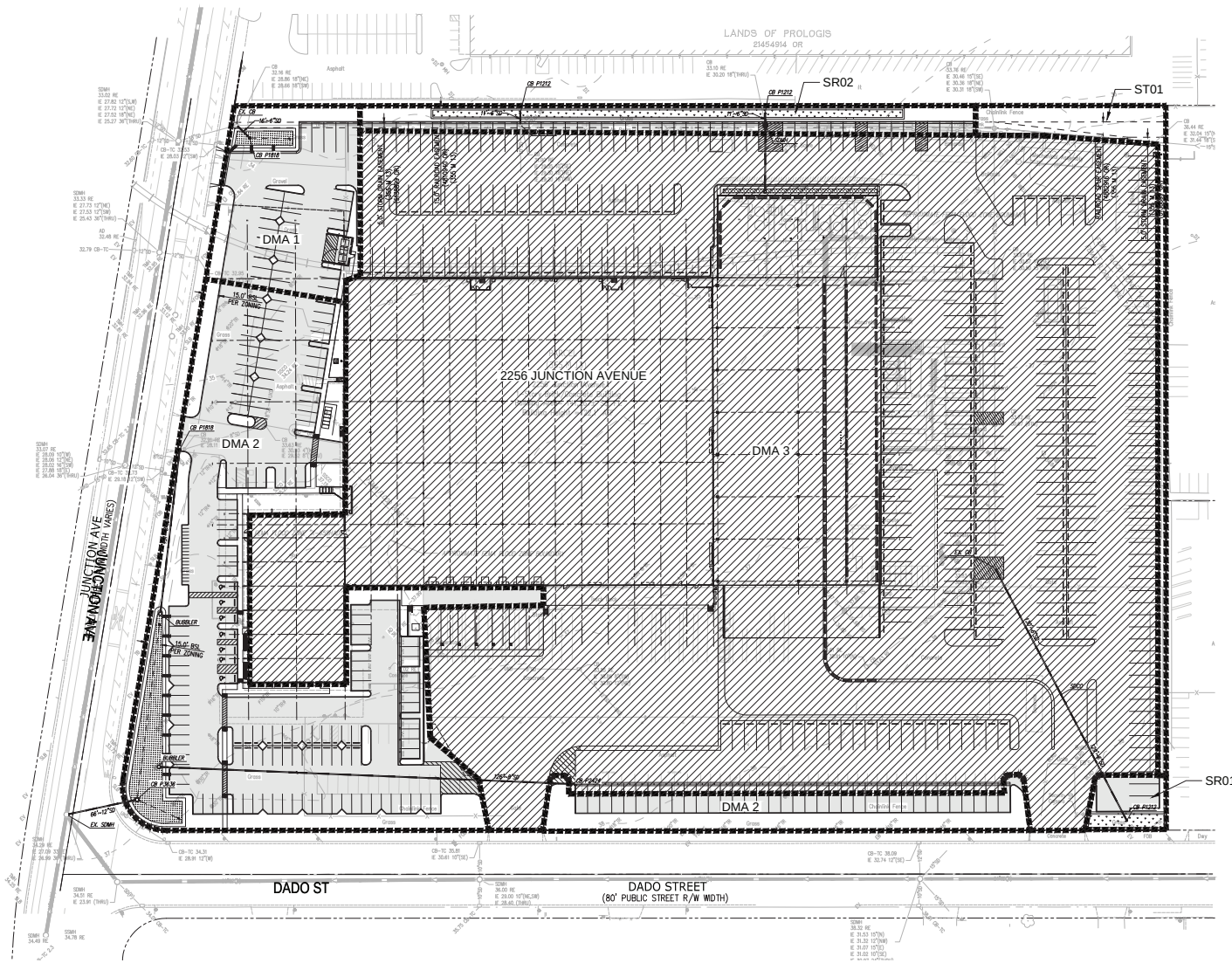
KIER+WRIGHT
163 Technology Drive
Irvine, CA 92618
Phone: (949) 398-4202
www.kierwright.com

PRELIMINARY DEMOLITION PLAN

2256 JUNCTION AVENUE
FOR
DUKE REALTY

SAN JOSE, CALIFORNIA

DATE	AUGUST 2020
SCALE	AS SHOWN
DESIGNER	EMK
DRAWN BY	EMK
JOB NO.	A19600-2
SHEET	C5.0
OF	6 SHEETS



0 20 40 80 120

Scale 1" = 40'

LEGEND

- TRIBUTARY AREA LIMITS
- EXISTING IMPERVIOUS AREA TO REMAIN
- IMPERVIOUS AREA DRAINING TO BIOTREATMENT
- BIO-RETENTION TREATMENT AREA

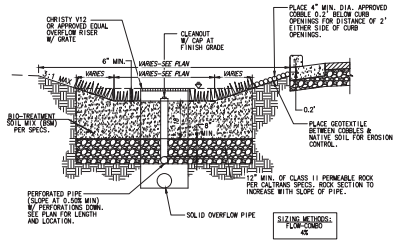
DMA	DRAINAGE MANAGEMENT AREA
TCM	TREATMENT CONTROL MEASURE
ST	SELF TREATING
SR	SELF RETAINING

PROJECT SITE INFORMATION:

1. SOILS TYPE: CLAY.
2. GROUND WATER DEPTH: TBD.
3. NAME OF RECEIVING BODY: GUADALUPE RIVER
4. FLOOD ZONE: ZONE AH AND X-SHADED
5. FLOOD ELEVATION (IF APPLICABLE): VARIES 34.5' TO 39.5'

BIORETENTION & FLOW-THROUGH PLANTER NOTES

1. SEE GRADING PLAN FOR BASIN FOOTPRINT AND DESIGN ELEVATIONS.
2. PLACE 3" OF COMPOSTED, NON-FLOATABLE MULCH IN AREAS BETWEEN STORMWATER PLANTINGS.
3. SEE LANDSCAPE PLAN FOR MULCH, PLANT MATERIALS AND IRRIGATION REQUIREMENTS.
4. CURB CUTS SHALL BE A MINIMUM 18" WIDE AND SPACED AT MAXIMUM 10' O.C. INTERVALS AND SLOPED TO DIRECT STORMWATER TO DRAIN INTO THE BASIN. CURB CUTS SHALL ALSO NOT BE PLACED INLINE WITH OVERFLOW CATCH BASIN. SEE GRADING PLAN FOR MORE DETAIL ON LOCATIONS OF CURB CUTS.
5. A MINIMUM 0.2' DROP BETWEEN STORMWATER ENTRY POINT (I.E. CURB OPENING, FLUSH CURB, ETC.) AND ADJACENT LANDSCAPE FINISHED GRADE.
6. DO NOT COMPACT NATIVE SOIL/SUBGRADE AT BOTTOM OF BASIN. LOOSEN SOIL TO 12" DEPTH.



BIORETENTION BASIN W/O LINER 1

SCALE: N.T.S.

KIER+WRIGHT

163 Technology Drive
Irvine, CA 92618

Phone: (949) 581-8202
www.kierwright.com

PRELIMINARY STORM WATER CONTROL PLAN

2256 JUNCTION AVENUE
FOR
DUKE REALTY

SAN JOSE, CALIFORNIA

DATE	AUGUST 2020
SCALE	AS SHOWN
DESIGNER	EMK
DRAWN BY	EMK
JOB NO.	A19600-2
SHEET	C6.0
OF	6 SHEETS

Z:\2019\A19600-2\DWG\ENTITLEMENTS\PD-PERMIT\A19600-2-PUP.dwg 11-05-20 04:23:16 PM tflores

OPERATION AND MAINTENANCE INFORMATION:

I. PROPERTY INFORMATION:

I.A. PROPERTY ADDRESS:
2256 JUNCTION AVENUE
SAN JOSE, CA 95131

I.B. PROPERTY OWNER:
DUKE REALTY
PROPERTY OWNER NAME
TBD

II. RESPONSIBLE PARTY FOR MAINTENANCE:

II.A. CONTACT:
TBD

II.B. PHONE NUMBER OF CONTACT:
TBD

II.C. EMAIL:
TBD

II.D. ADDRESS:
TBD

SOURCE CONTROL MEASURES:

1. CONNECT THE FOLLOWING FEATURES TO SANITARY SEWER:
   a. COVERED TRASH/ RECYCLING ENCLOSURES.
   b. INTERIOR PARKING STRUCTURES.
   c. WASH AREA/ RACKS.
   d. POOLS, SPAS, FOUNTAINS.
   e. COVERED LOADING DOCKS AND MAINTENANCE BAYS.
   f. PUMPED GROUNDWATER.
2. SERVICE STATIONS/ FUELING AREAS (MUST INCLUDE ALL FOUR BELOW):
   a. GRADE FUELING AREAS TO PREVENT PONDING.
   b. USE CONCRETE FOR THE FUEL AREA SURFACE.
   c. SEPARATE THE FUELING AREA FROM THE REST OF THE SITE BY A GRADE BREAKS THAT PREVENT RUN-ON.
   d. COVER THE FUELING AREAS WITH A CANOPY EXTENDING A MINIMUM OF TEN FEET FROM EACH PUMP.
3. BENEFICIAL LANDSCAPING.
4. USE OF WATER EFFICIENT IRRIGATION SYSTEMS.
5. MAINTENANCE (PAVEMENT SWEEPING, CATCH BASIN CLEANING, GOOD HOUSEKEEPING).
6. STORM DRAIN LABELING.
7. OTHER: _____

SITE DESIGN MEASURES:

1. PROTECT EXISTING TREES, VEGETATION, AND SOIL.
2. PRESERVE OPEN SPACE AND NATURAL DRAINAGE PATTERNS.
3. REDUCE EXISTING IMPERVIOUS SURFACES.
4. CREATE NEW PERVIOUS AREAS:
5. LANDSCAPING
   a. PARKING STALLS.
   b. WALKWAYS AND PATIOS.
   c. EMERGENCY VEHICLE ACCESS.
   d. PRIVATE STREETS AND SIDEWALKS.
6. DIRECT RUNOFF FROM ROOFS, SIDEWALKS, PATIOS TO LANDSCAPED AREAS.
7. CLUSTER STRUCTURES/PAVEMENT.
8. PLANT TREES ADJACENT TO AND IN PARKING AREAS AND ADJACENT TO OTHER IMPERVIOUS AREAS.
9. PARKING:
   a. ON TOP OF OR UNDER BUILDINGS.
   b. NOT PROVIDED IN EXCESS OF CODE.
10. RAINWATER HARVESTING AND USE (E.G., RAIN BARREL, CISTERN CONNECTED TO ROOF DRAINS)
11. INSTALL A GREEN ROOF ON ALL OR A PORTION OF THE ROOF.
12. PROTECTED RIPARIAN AND WETLAND AREAS/ BUFFERS.

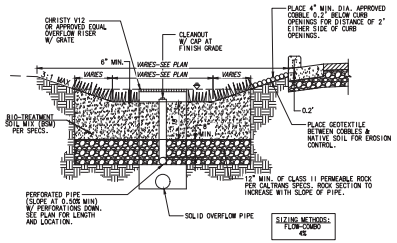
OTHER: _____

TABLE 1
ROUTINE MAINTENANCE ACTIVITIES FOR BIORETENTION AREAS

NO.	MAINTENANCE TASK	FREQUENCY OF TASK
1	REMOVE OBSTRUCTIONS, WEEDS, DEBRIS AND TRASH FROM BIORETENTION AREA AND ITS INLETS AND OUTLETS; AND DISPOSE OF PROPERLY.	QUARTERLY, OR AS NEEDED AFTER STORM EVENTS
2	INSPECT BIORETENTION AREA FOR STANDING WATER. IF STANDING WATER DOES NOT DRAIN WITHIN 2-3 DAYS, TILL AND REPLACE THE SURFACE BIOTREATMENT SOIL WITH THE APPROVED SOIL MIX AND REPLANT.	QUARTERLY, OR AS NEEDED AFTER STORM EVENTS
3	CHECK UNDERDRAINS FOR CLOGGING. USE THE CLEANOUT RISER TO CLEAN ANY CLOGGED UNDERDRAINS.	QUARTERLY, OR AS NEEDED AFTER STORM EVENTS
4	MAINTAIN THE IRRIGATION SYSTEM AND ENSURE THAT PLANTS ARE RECEIVING THE CORRECT AMOUNT OF WATER (IF APPLICABLE).	QUARTERLY
5	ENSURE THAT THE VEGETATION IS HEALTHY AND DENSE ENOUGH TO PROVIDE FILTERING AND PROTECT SOILS FROM EROSION. PRUNE AND WEED THE BIORETENTION AREA. REMOVE AND/OR REPLACE ANY DEAD PLANTS.	ANNUALLY, BEFORE THE WET SEASON BEGINS
6	USE COMPOST AND OTHER NATURAL SOIL AMENDMENTS AND FERTILIZERS INSTEAD OF SYNTHETIC FERTILIZERS, ESPECIALLY IF THE SYSTEM USES AN UNDERDRAIN.	ANNUALLY, BEFORE THE WET SEASON BEGINS
7	CHECK THAT MULCH IS AT APPROPRIATE DEPTH (2 – 3 INCHES PER SOIL SPECIFICATIONS) AND REPLENISH AS NECESSARY BEFORE WET SEASON BEGINS. IT IS RECOMMENDED THAT 2″ Ø 3″ OF ARBOR MULCH BE REAPPLIED EVERY YEAR.	ANNUALLY, BEFORE THE WET SEASON BEGINS
8	INSPECT THE ENERGY DISSIPATION AT THE INLET TO ENSURE IT IS FUNCTIONING ADEQUATELY, AND THAT THERE IS NO SCOUR OF THE SURFACE MULCH. REMOVE ACCUMULATED SEDIMENT.	ANNUALLY, BEFORE THE WET SEASON BEGINS
9	INSPECT OVERFLOW PIPE TO ENSURE THAT IT CAN SAFELY CONVEY EXCESS FLOWS TO A STORM DRAIN. REPAIR OR REPLACE DAMAGED PIPING.	ANNUALLY, BEFORE THE WET SEASON BEGINS
10	REPLACE BIOTREATMENT SOIL AND MULCH, IF NEEDED. CHECK FOR STANDING WATER, STRUCTURAL FAILURE AND CLOGGED OVERFLOWS. REMOVE TRASH AND DEBRIS. REPLACE DEAD PLANTS.	
11	INSPECT BIORETENTION AREA USING THE ATTACHED INSPECTION CHECKLIST.	ANNUALLY, BEFORE THE WET SEASON

BIORETENTION & FLOW-THROUGH PLANTER NOTES

1. *SEE GRADING PLAN FOR BASIN FOOTPRINT AND DESIGN ELEVATIONS.*
2. *PLACE 3" OF COMPOSTED, NON-FLOATABLE MULCH IN AREAS BETWEEN STORMWATER PLANTINGS.*
3. *SEE LANDSCAPE PLAN FOR MULCH, PLANT MATERIALS AND IRRIGATION REQUIREMENTS.*
4. *CURB CUTS SHALL BE A MINIMUM 18" WIDE AND SPACED AT MAXIMUM 10' O.C. INTERVALS AND SLOPED TO DIRECT STORMWATER TO DRAIN INTO THE BASIN. CURB CUTS SHALL ALSO NOT BE PLACED INLINE WITH OVERFLOW CATCH BASIN. SEE GRADING PLAN FOR MORE DETAIL ON LOCATIONS OF CURB CUTS.*
5. *A MINIMUM 0.2" DROP BETWEEN STORMWATER ENTRY POINT (I.E. CURB OPENING, FLUSH CURB, ETC.) AND ADJACENT LANDSCAPE FINISHED GRADE.*
6. *DO NOT COMPACT NATIVE SOIL/SUBGRADE AT BOTTOM OF BASIN. LOOSEN SOIL TO 12" DEPTH.*



BIORETENTION BASIN W/O LINER (1)
SCALE: N.T.S.

STANDARD STORMWATER CONTROL NOTES:

- STANDING WATER SHALL NOT REMAIN IN THE TREATMENT MEASURES FOR MORE THAN FIVE DAYS, TO PREVENT MOSQUITO GENERATION. SHOULD ANY MOSQUITO ISSUES ARISE, CONTACT THE SANTA CLARA VALLEY VECTOR CONTROL DISTRICT (DISTRICT). MOSQUITO LARVICIDES SHALL BE APPLIED ONLY WHEN ABSOLUTELY NECESSARY, AS INDICATED BY THE DISTRICT, AND THEN ONLY BY A LICENSED PROFESSIONAL OR CONTRACTOR. CONTACT INFORMATION FOR THE DISTRICT IS PROVIDED BELOW.
- DO NOT USE PESTICIDES OR OTHER CHEMICAL APPLICATIONS TO TREAT DISEASED PLANTS. CONTROL WEEDS OR REMOVED UNWANTED GROWTH. EMPLOY NON-CHEMICAL CONTROLS (BIOLOGICAL, PHYSICAL AND CULTURAL CONTROLS) TO TREAT A PEST PROBLEM. PRUNE PLANTS PROPERLY AND AT THE APPROPRIATE TIME OF YEAR. PROVIDE ADEQUATE IRRIGATION FOR LANDSCAPE PLANTS. DO NOT OVER WATER.

- BIORETENTION SOIL MIX SHALL MEET THE REQUIREMENTS AS OUTLINED IN APPENDIX C OF THE C.3 STORM WATER HANDBOOK AND SHALL BE A MIXTURE OF FINE SAND AND COMPOST MEASURED ON A VOLUME BASIS OF 60-70% SAND AND 30-40% COMPOST. CONTRACTOR TO REFER TO APPENDIX C FOR SAND AND COMPOST MATERIAL SPECIFICATIONS. CONTRACTOR MAY OBTAIN A COPY OF THE C3 HANDBOOK AT : HTTP://WWW.SANJOSECA.GOV/INDEX.ASPX?NID=1761
- PRIOR TO ORDERING THE BIOTREATMENT SOIL MIX OR DELIVERY TO THE PROJECT SITE, CONTRACTOR SHALL PROVIDE A BIOTREATMENT SOIL MIX SPECIFICATION CHECKLIST, COMPLETED BY THE SOIL MIX SUPPLIER AND CERTIFIED TESTING LAB.

2. AREA DATA

2.a Enter the Project Phase Number (1, 2, 3, etc. or N/A if Not Applicable):	N/A	
2.b Total area of site:	13.68	acres
2.c Total area of site that will be disturbed:	3.51	acres

COMPARISON OF IMPERVIOUS AND PERVIOUS AREAS AT PROJECT SITE:

2.d IMPERVIOUS AREAS - IA	Pre-Project Existing IA sq. ft.	Existing IA Retained As-Is[1] sq. ft.	Existing IA Replaced with IA[2] sq. ft.	New IA Created[2] sq. ft.	Total Post Project IA sq. ft.
Site Totals					
Total IA	d.1 478795	d.2 46635	d.3 12460	d.4 54342	d.5 (d.2+d.3+d.4) 533137
Total New and Replaced IA			d.6 (d.3+d.4) 66802		
Public Street Totals					
Total Public Streets IA[3]	d.8	d.9	d.10	d.11	d.12 (d.9+d.10+d.11)
Total New and Replaced Public Streets IA			d.13 (d.10+d.11)		
Total Site and Public Streets IA	d.14 (d.1+d.8)				d.15 (d.5+d.12)
Percent Replacement of IA in Redevelopment Projects (d.3+d.1) x 100:					d.16 2.6 %

2.e PERVIOUS AREAS - PA	Pre-Project Existing PA sq. ft.	Total Post Project PA sq. ft.
Total PA[4]	e.1 117097	e.2 62755
2.f Total Area (IA + PA)	(1, d.14 + e.1) 595892	(2, d.15 + e.2) 595892

KIER+WRIGHT
163 Technology Drive
Irvine, CA 92618
Phone: (949) 508-5100
www.kierwright.com

REVISION | NO. | BY

PRELIMINARY STORMWATER QUALITY CONTROL NOTES

2256 JUNCTION AVENUE
FOR
DUKE REALTY

SAN JOSE, CALIFORNIA

DATE	AUGUST 2020
SCALE	AS SHOWN
DESIGNER	EMK
DRAWN BY	EMK
JOB NO.	A19600-2
SHEET	C6.1
OF	6 SHEETS

GENERAL NOTES:

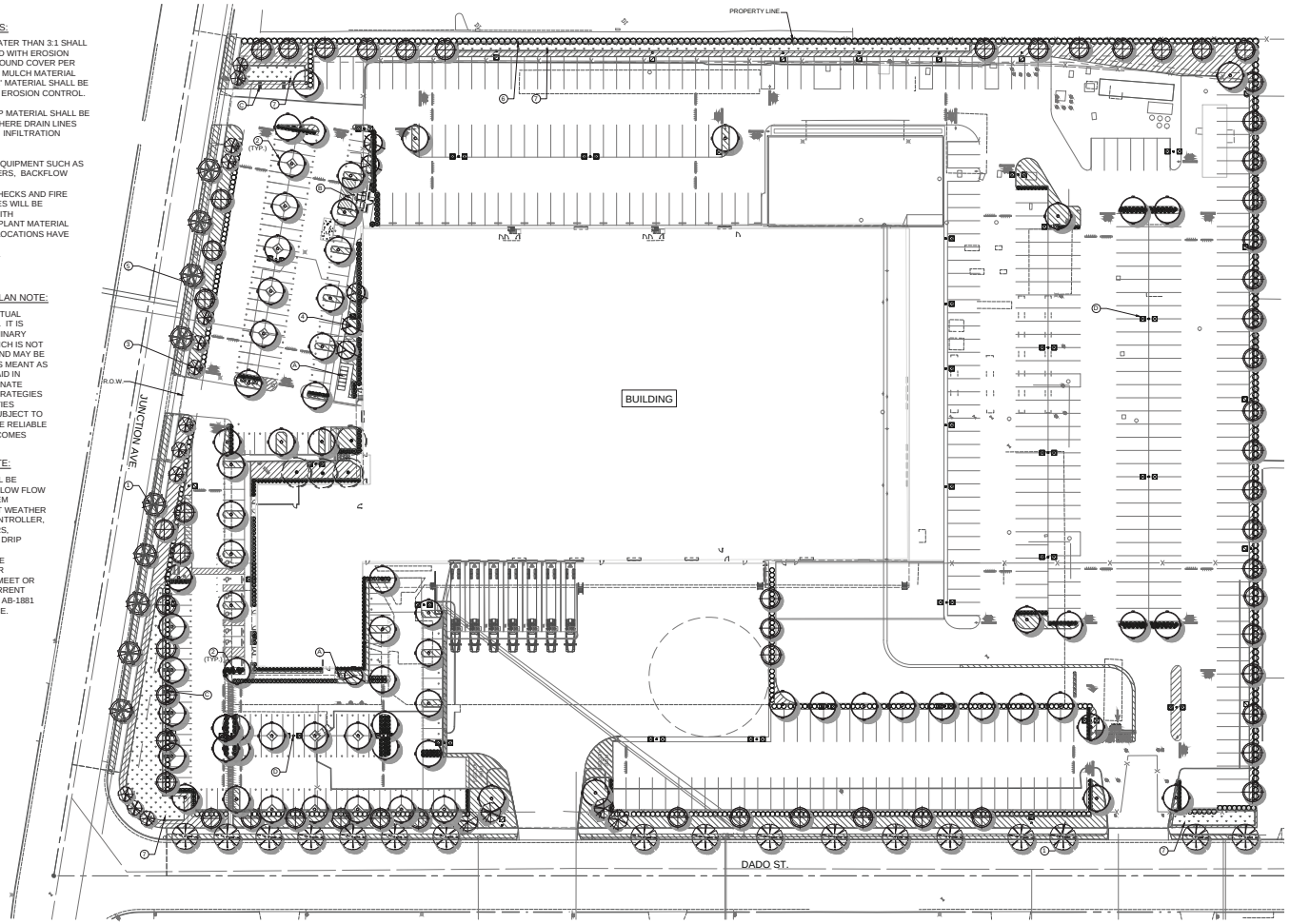
- SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITH EROSION CONTROL GROUND COVER PER LEGEND, AND MULCH MATERIAL WITH 'BINDER' MATERIAL SHALL BE APPLIED FOR EROSION CONTROL.
- ROCK RIP-RAP MATERIAL SHALL BE INSTALLED WHERE DRAIN LINES CONNECT TO INFILTRATION AREAS.
- ALL UTILITY EQUIPMENT SUCH AS TRANSFORMERS, BACKFLOW UNITS, FIRE DETECTOR CHECKS AND FIRE CHECK VALVES WILL BE SCREENED WITH EVERGREEN PLANT MATERIAL ONCE FINAL LOCATIONS HAVE BEEN DETERMINED.

CONCEPTUAL PLAN NOTE:

THIS IS A CONCEPTUAL LANDSCAPE PLAN. IT IS BASED ON PRELIMINARY INFORMATION WHICH IS NOT FULLY VERIFIED AND MAY BE INCOMPLETE. IT IS MEANT AS A COMPARATIVE AID IN EXAMINING ALTERNATE DEVELOPMENT STRATEGIES AND ANY QUANTITIES INDICATED ARE SUBJECT TO REVISION AS MORE RELIABLE INFORMATION BECOMES AVAILABLE.

IRRIGATION NOTE:

THE PROJECT WILL BE EQUIPPED WITH A LOW FLOW IRRIGATION SYSTEM CONSISTING OF ET WEATHER BASED SMART CONTROLLER, LOW FLOW ROTORS, BUBBLER AND/ OR DRIP SYSTEMS USED THROUGHOUT. THE IRRIGATION WATER EFFICIENCY WILL MEET OR SURPASS THE CURRENT STATE MANDATED AB-1881 WATER ORDINANCE.



DESIGN KEY NOTES:

1. PROPOSED STREET TREE TO MATCH EXISTING STREET TREES. FINAL VARIETY TO BE APPROVED BY SAN JOSE CITY PLANNING DEPT
2. BROAD CANOPY EVERGREEN SHADE TREE
3. FLOWERING ACCENT TREE
4. VERTICAL GROWING TREES ADJACENT TO BUILDING
5. PARKING LOT SCREEN SHRUBS
6. EVERGREEN SCREEN SHRUBS
7. PROPOSED CRUSHED ROCK MULCH AT PERIMETER LANDSCAPE AREAS.

REFERENCE KEY NOTES:

A. BIKE RACKS PER ARCHITECTURAL PLANS.
B. TRASH ENCLOSURE PER ARCHITECTURAL PLANS.
C. ROCK RIP RAP PER CIVIL PLANS.
D. LIGHT STANDARD PER ELEC. PLAN.

PLANTING LEGEND

TREES			
SYMBOL	TREE NAME	QTY.	WUCOLS
	EXISTING TREE TO REMAIN		
	PROPOSED STREET TREE ALONG JUNCTION AVE. FRAXINUS UHDEI, EVERGREEN ASH 24" BOX SIZE	9	M
	PROPOSED STREET TREE ALONG DADO ST. TO MATCH EXISTING ULMUS P. 'TRUE GREEN' 24" BOX SIZE	17	M
	SMALL FLOWERING TREES AT VEHICULAR ENTRY DRIVE CERCIS C. 'FOREST PANSY', EASTERN REDBUD 36" BOX SIZE	17	M
	PARKING LOT SHADE TREES PODOCARPUS GRACILIOR, FERN PINE 24" BOX SIZE	76	M
	VERTICAL GROWING TREE GINGKO BILOBA, GINKGO TREE 24" BOX SIZE.	6	M
	EVERGREEN SCREEN TREES TRISTANIA CONFERTA, BRISBANE BOX 15 GAL. SIZE MIN.	58	M

SHRUBS - SHRUBS SHALL BE CHOSEN FROM THE FOLLOWING:		
SYMBOL	SHRUB NAME	WUCOLS
	CALLISTEMON 'LITTLE JOHN', DWARF BOTTLE BRUSH 5 GAL. SIZE	M
	PRUNUS C. 'MONUS', BRIGHT 'N TIGHT CAROLINA LAUREL 5 GAL. SIZE	M
	WESTRINGIA 'WYNYABBIE GEM', 'WYNYABBIE GEM' COAST ROSEMARY 5 GAL. SIZE	L

GROUND COVER AND SHRUB MASSES		
SYMBOL	GROUND COVER/SHRUB MASS NAME	WUCOLS
	AGAVE ATTENUATA, FOXTAIL AGAVE 5 GAL. SIZE @ 36" O.C.	L
	ARCTOSTAPHYLOS UVA-URSI 'PT-REYES', MANZANITA 1 GAL. SIZE @ 30" O.C.	L
	CAREX DIVULSA, BERKLEY SEDGE 1 GAL. SIZE @ 24" O.C.	L
	CEANOTHUS GLORIOSUS, POINT REYES CEANOTHUS 5 GAL. SIZE @ 42" O.C.	L
	LANTANA M. 'GOLD RUSH', DWARF YELLOW LANTANA 1 GAL. SIZE @ 30" O.C.	L
	MUHLENBERGIA LINDHERMI, LINDHERMI MUHLY 1 GAL. SIZE @ 30" O.C.	L
	ROSMARINUS O. 'PROSTRATUS', PROSTRATE ROSEMARY 1 GAL. SIZE @ 24" O.C.	L
	SALVIA LEUCANTHA 'SANTA BARBARA', SANTA BARBARA BUSH SAGE 5 GAL. SIZE @ 42" O.C.	L
	EXISTING SHRUBS TO REMAIN. 'PROTECT IN PLACE.'	

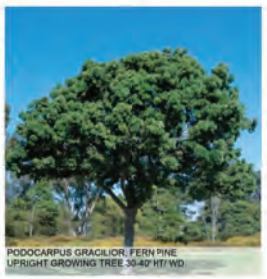
STORM WATER TREATMENT AREAS		
SYMBOL	SHRUB AND GRASSES	WUCOLS
	LANDSCAPE PLANTING AT STORM WATER TREATMENT AREA. PROPOSED SHRUBS AND GRASSES SHALL BE TOLERANT SEASONAL WATER INUNDATION AND PONDING	
APPROX. 30%	CAREX DIVULSA, BERKLEY SEDGE 1 GAL. SIZE @ 24" O.C.	M
APPROX. 33%	CHONDRAPETALUM TECTORUM, DWAR CAPE RUSH 1 GAL. SIZE @ 36" O.C.	M
APPROX. 33%	LEYMUS ARENARIUS 'GLAUCUS', BLUE LYME GRASS 1 GAL. SIZE @ 30" O.C.	M

NOTE: ALL SHRUB PLANTING AREAS WITHIN LIMIT OF WORK SHALL RECEIVE A 3" LAYER OF SHREDDED BARK MULCH.


FRAXINUS UHDEI, EVERGREEN ASH
LARGE GROWING STREET TREE 40-50' HT / WD


ULMUS PARVIFOLIA, EVERGREEN ELM TREE
LARGE GROWING STREET TREE 30-40' HT/ WD.


CERCIS C. 'FOREST PANSY', EASTERN REDBUD
SMALL GROWING TREE 15-25' HT/ WD


PODOCARPUS GRACILIOR, FERN PINE
UPRIGHT GROWING TREE 30-40' HT/ WD


GINGKO BILOBA, GINGKO TREE
NARROW UPRIGHT GROWING TREE
20-30' WD X 40-50' HT.


TRISTANIA CONFERTA, BRISBANE BOX
NARROW UPRIGHT GROWING TREE 20-30' WD X 40-50' HT.

SPLA
SCOTT PETERSON LANDSCAPE ARCHITECT, INC.
2883 VIA RANCHEROS WAY
FALLBROOK, CA 92028
PH: 760-842-8993

CONCEPTUAL LANDSCAPE PLAN
DD01

2208 JUNCITON AVE, SAN JOSE CA

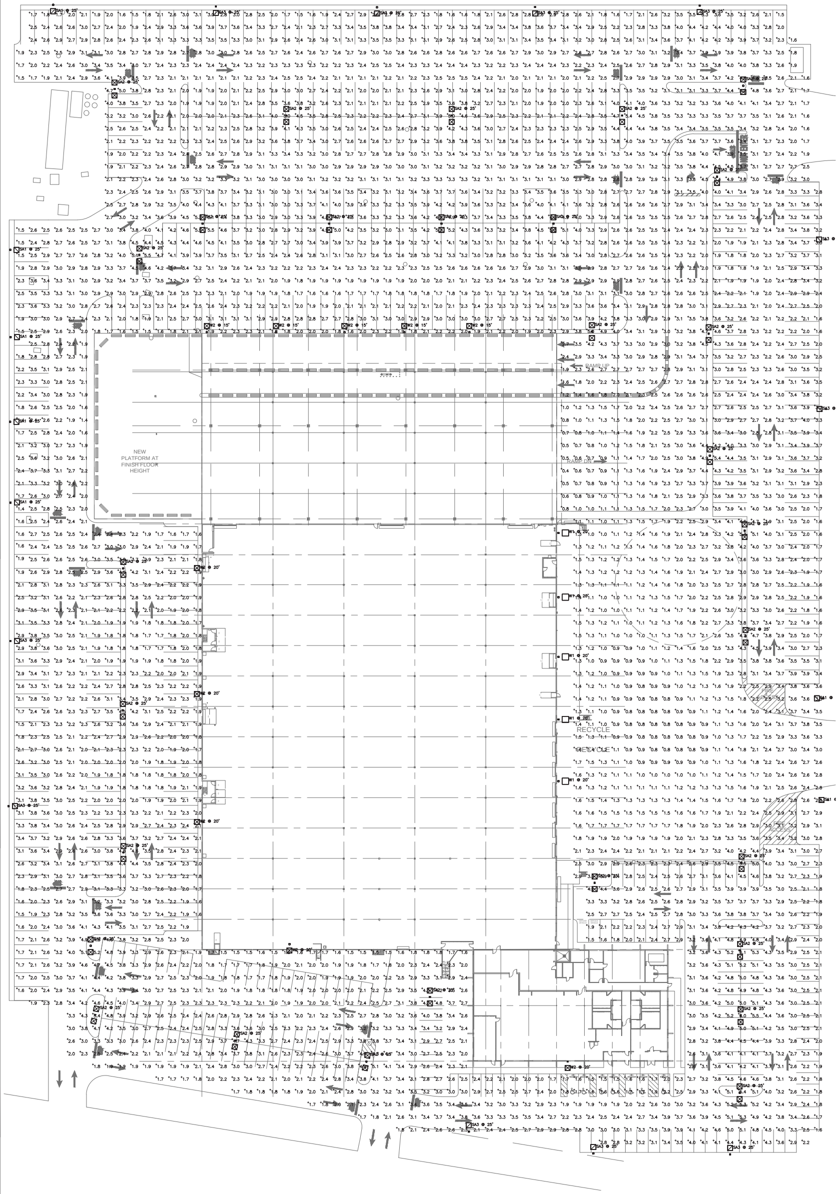
NORTH

0 30' 60' 90'

SCALE: 1" = 30'-0"

DATE: 11/06/2020

L-1



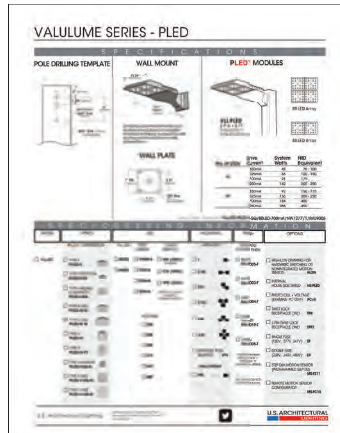
Schedule

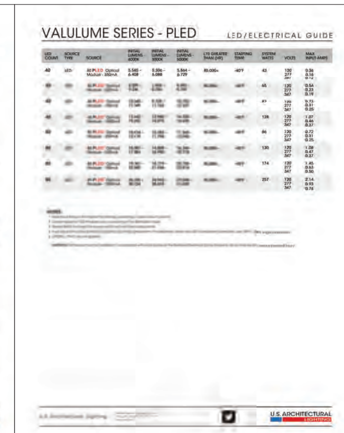
Symbol	Label	QTY	Catalog Number	Description	Lamp	Number Lamps	Lumens per Lamp	LLF	Wattage	Polar Plot
◪	SA1	7	VLL-PLED-IV-FT-80LED-525mA-NW-HS-MM511 POLE MT AT 25 FT AFG BUG B1 U0 G3 30 IN BASE 22.5 ft pole	CAST BLACK PAINTED FINNED METAL HOUSING.	80 WHITE LIGHT EMITTING DIODES (LEDS), BASE UP.	80	166	0.9	129.4	
⊠ ⊠	SA2	29	VLL-PLED-VSQ-W-80LED--525mA-NW-MM511 POLE MT AT 25 FT AFG BUG RATING B5 U0 G3 22.5 FT POLE 30 IN BASE	CAST BLACK PAINTED FINNED METAL HOUSING.	80 WHITE LIGHT EMITTING DIODES (LEDS), BASE UP.	80	232	0.9	258.8	
◪	SA3	11	VLL-PLED-III-80LED-525mA-NW-HS-MM511 POLE MT AT 25 FT AFG BUG RATING B1 U0 G3 30 IN BASE 22.5 FT POLE	CAST BLACK PAINTED FINNED METAL HOUSING.	80 WHITE LIGHT EMITTING DIODES (LEDS), BASE UP.	80	170	0.9	129.4	
□	W1	5	RZR-WM1-PLED-IV-FT-20LED-525mA-NW -MM511 WALL MT AT 20 FT AFG BUG RATING B1 U0 G2	CAST BLACK PAINTED FINNED METAL HOUSING.	20 WHITE LIGHT EMITTING DIODES (LEDS), BASE UP.	20	212	0.9	32.4	
⊠	W2	10	RZR-WM1-PLED-II-20LED-350mA-NW-HS MM511 WALL MT AT 15 AND 20 FT PER PLAN BUG RATING B0 U0 G1	CAST BLACK PAINTED FINNED METAL HOUSING.	20 WHITE LIGHT EMITTING DIODES (LEDS), BASE UP.	20	117	0.9	21.4	

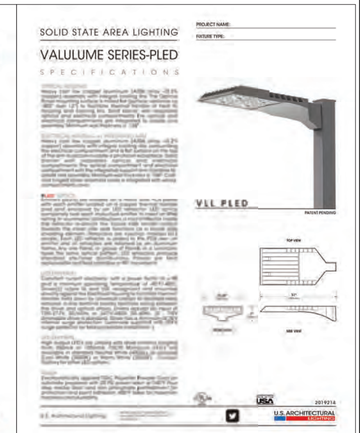
Statistics

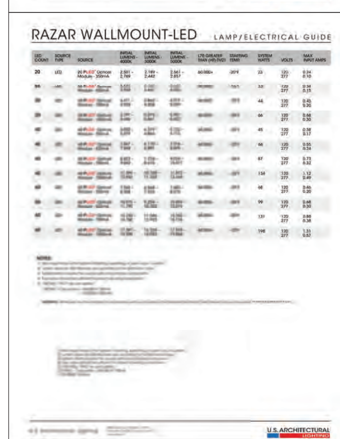
BUG RATING B1U0G2

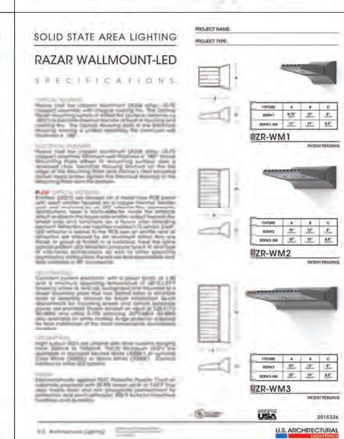
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	+	2.7 fc	6.1 fc	0.4 fc	15.3:1	6.8:1
Calc Zone #2	+	1.8 fc	1.9 fc	1.6 fc	1.2:1	1.1:1

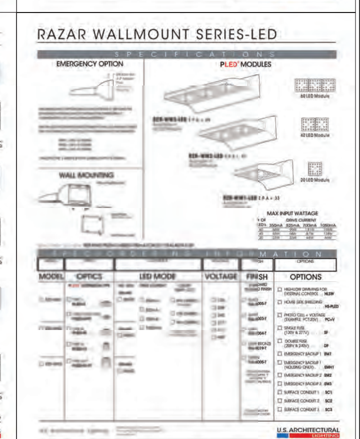

VALULUME SERIES - PLED


VALULUME SERIES - PLED


SOLID STATE AREA LIGHTING
VALULUME SERIES-PLED


RAZAR WALLMOUNT-LED


SOLID STATE AREA LIGHTING
RAZAR WALLMOUNT-LED


RAZAR WALLMOUNT SERIES-LED

Architecture. Design. Relationships.

SEAL

REGISTERED PROFESSIONAL ENGINEER
LAN V. NGUYEN
No. 015596
Exp. 12-31-2021
ELECTRICAL
STATE OF CALIFORNIA
10/16/2020

CONSULTANT

RPM Engineers, Inc.
102 DISCOVERY
Irvine, Ca. 92618
Tel: 949-450-1229 (209)
Fax: 949-450-1454
Contact: Frank Sheng
e-mail: franks@rpmpe.com

DELIVERY STATION DD01 - SAN JOSE

2256 JUNCTION AVE, SAN JOSE, CA

Project Number: 2020-054
Plan Check Number:

2020-09-03 PLAN CHECK SUBMITTAL

SITE PHOTOMETRIC PLAN

1"=40'-0" | 1

E-2.1

RPM #20-000_C1 10/16/2020

Appendix B – San Jose VMT Evaluation Tool Summary Report

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

PROJECT:

Name: 2256 Junction Ave - DDO1 Site Analysis
Tool Version: 2/29/2019
Location: 2256 Junction Blvd
Date: 1/11/2021
Parcel: 23718075 Parcel Type: Suburb with Multifamily Housing

Proposed Parking Spaces Vehicles: 552 Bicycles: 14

LAND USE:

Residential:

Single Family	0	DU
Multi Family	0	DU
Subtotal	0	DU

Office: 0 KSF

Retail: 0 KSF

Industrial: 141.5 KSF

Percent of All Residential Units

Extremely Low Income (≤ 30% MFI)	0	% Affordable
Very Low Income (> 30% MFI, ≤ 50% MFI)	0	% Affordable
Low Income (> 50% MFI, ≤ 80% MFI)	0	% Affordable

VMT REDUCTION STRATEGIES

Tier 1 - Project Characteristics

Increase Residential Density

Existing Density (DU/Residential Acres in half-mile buffer)	18	
With Project Density (DU/Residential Acres in half-mile buffer)	18	

Increase Development Diversity

Existing Activity Mix Index	0.63	
With Project Activity Mix Index	0.63	

Integrate Affordable and Below Market Rate

Extremely Low Income BMR units	0	%
Very Low Income BMR units	0	%
Low Income BMR units	0	%

Increase Employment Density

Existing Density (Jobs/Commercial Acres in half-mile buffer)	17	
With Project Density (Jobs/Commercial Acres in half-mile buffer)	17	

Tier 2 - Multimodal Infrastructure

Tier 3 - Parking

End of Trip Bike Facilities

Bicycle Parking Spaces Provided by Project	14	spaces
Project Provides Additional End-of-Trip Facilities Beyond Parking?	Yes	

Tier 4 - TDM Programs

Commute Trip Reduction Marketing/ Education

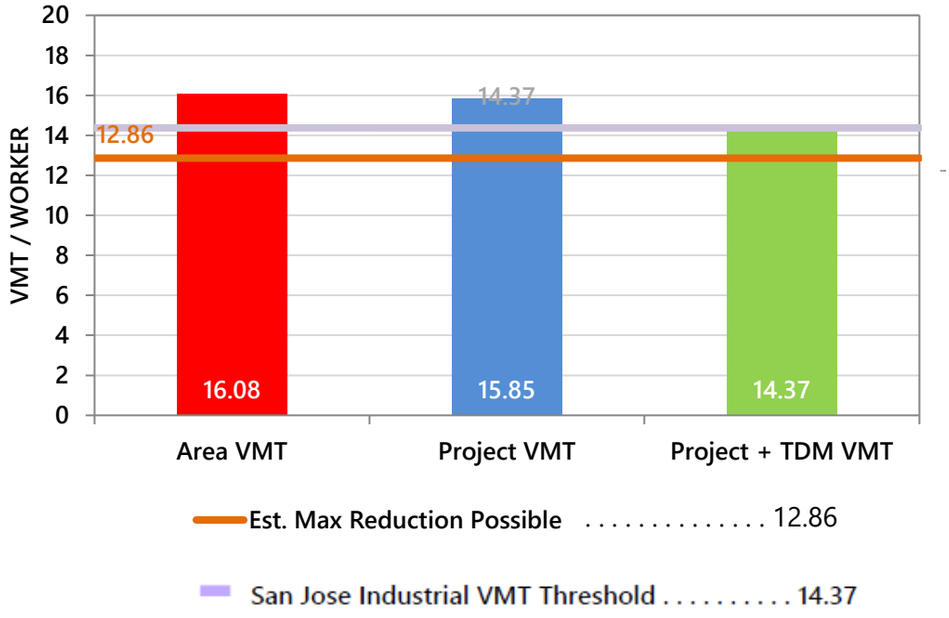
Percent of Eligible Employees	16	%

Ride-Sharing Programs

Percent of Eligible Eemployees	16	%

EMPLOYMENT ONLY

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



Estimated VMT reduction with selected VMT Reduction Strategies on Page 1 = 10.7%

Appendix C – Trip Generation Comparison (ITE and Project Collected Data)

Kimley»Horn

Trip Generation for proposed 2256 Junction - Baseline Comparison Table 1

1/11/2021 11:07

LAND USE / DESCRIPTION	PROJECT SIZE	TOTAL DAILY TRIPS	AM PEAK TRIPS				PM PEAK TRIPS			
			TOTAL	IN	/	OUT	TOTAL	IN	/	OUT
Trip Generation Rates (ITE)										
Warehouse [ITE 150]	Per 1,000 Sq Ft	1.74	0.17	77%	/	23%	0.19	27%	/	73%
High-Cube Transload & Short Term Warehouse [ITE 154]	Per 1,000 Sq Ft	1.40	0.08	77%	/	23%	0.10	28%	/	72%
Existing Univar Baseline Condition Scenarios										
Scenario 1 - ITE Average Rates (Warehouse-150)	141.51 1,000 Sq Ft	246	24	18	/	6	27	7	/	20
Scenario 2 - Driveway Counts (9/17/2019)	141.51 1,000 Sq Ft	284	21	14	/	7	23	7	/	16
Proposed Delivery Station DDO1 Baseline Condition Scenarios										
Scenario 3 - ITE Average Rates (Warehouse-154)	141.51 1,000 Sq Ft	198	11	8	/	3	14	4	/	10
Scenario 4 - DDO1 Steady State Analysis	141.51 1,000 Sq Ft	700	3	1	/	2	64	32	/	32

Notes:

Daily, AM, and PM trips based on average land use rates from the Institute of Traffic Engineers Trip Generation 10th Edition

Warehouse Land Uses assumed based on proposed site plan from AO Architects (11/6/2020)

Existing Univar driveway counts collected on 9/17/2019 by IDAX and reported by Kimley-Horn in 2256 Junction Trip Generation Evaluation Memo

DDO1 Steady State and Seasonal Peak Analysis based on proposed project operations provided by Client (10/14/2020). Vehicle trips shown include employee automobiles, delivery trucks, and distribution vans.

Appendix D – Daily Project Vehicle Operations

DDO1 in San Jose, CA - Site Specific

	Autos			Trucks			Vans			Total		
Time	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
00:00	0	0	0	0	0	0	0	0	0	0	0	0
01:00	57	0	57	1	1	2	0	0	0	58	1	59
02:00	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	1	1	2	0	0	0	1	1	2
04:00	0	0	0	1	0	1	0	0	0	1	0	1
05:00	16	0	16	0	1	1	0	0	0	16	1	17
06:00	0	0	0	1	0	1	0	0	0	1	0	1
07:00	0	0	0	0	1	1	0	0	0	0	1	1
07:30	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	1	0	1	0	0	0	1	0	1
08:30	0	0	0	0	1	1	0	0	0	0	1	1
09:00	50	0	50	1	0	1	0	0	0	51	0	51
10:00	51	0	51	0	1	1	0	90	90	51	91	142
11:00	3	0	3	0	0	0	0	11	11	3	11	14
12:00	0	57	57	0	0	0	0	0	0	0	57	57
13:00	30	0	30	0	0	0	0	0	0	30	0	30
14:00	0	16	16	0	0	0	0	0	0	0	16	16
15:00	0	0	0	0	0	0	0	0	0	0	0	0
16:00	30	0	30	0	0	0	0	0	0	30	0	30
16:30	1	15	16	1	0	1	0	0	0	2	15	17
17:00	0	16	16	0	1	1	0	0	0	0	17	17
17:30	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	14	14	1	1	2	0	0	0	1	15	16
19:00	0	24	24	1	0	1	48	0	48	49	24	73
20:00	0	66	66	0	1	1	51	0	51	51	67	118
21:00	0	11	11	1	1	2	2	0	2	3	12	15
22:00	0	19	19	1	0	1	0	0	0	1	19	20
23:00	0	0	0	0	1	1	0	0	0	0	1	1
Total	**238**	**238**	**476**	**11**	**11**	**22**	**101**	**101**	**202**	**350**	**350**	**700**

1st Shift:	2:00 AM	12:30 PM	57	Assoc.
2nd Shift:	6:00 AM	2:30 PM	16	Assoc.
3rd Shift:	1:30 PM	10:00 PM	16	Assoc.
PFSD Shift:	2:00 PM	6:00 PM	14	Assoc.
RTS Shift:	12:00 PM	10:30 PM	3	Assoc.
Drivers:	9:20 AM	9:10 PM	101	Drivers

Appendix E – Existing Driveway Counts

IDAX Data Solutions
Project: 19426 - San Jose - 2256 Junction Driveway Counts
Date: 9/17/2019
Driveway In/Out @ 2256 Junction Ave

	Dwy 1								Dwy 2								Dwy 3							
	IN				OUT				IN				OUT				IN				OUT			
	NB Right		SB Left		WB Right		WB Left		EB Right		WB Left		SB Right		SB Left		EB Right		WB Left		SB Right		SB Left	
	Autos	Trucks	Autos	Trucks	Autos	Trucks	Autos	Trucks	Autos	Trucks	Autos	Trucks	Autos	Trucks	Autos	Trucks	Autos	Trucks	Autos	Trucks	Autos	Trucks	Autos	Trucks
6:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
6:15	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
6:30	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0
6:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
7:00	0	0	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0
7:15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7:30	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0
8:00	2	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0
8:15	2	0	1	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
AM Total	5	0	9	0	3	0	1	0	0	0	0	0	2	5	1	2	0	0	6	6	0	0	0	0
15:00	1	0	0	0	2	0	1	0	0	0	0	0	5	0	0	0	0	0	0	1	0	0	0	0
15:15	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0
15:30	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	2	0	0	1	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	1	0	0	0	0
16:15	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
17:15	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM Total	2	1	0	1	6	1	4	1	0	0	0	0	12	3	0	0	0	1	0	6	0	0	0	0
Total	7	1	9	1	9	1	5	1	0	0	0	0	14	8	1	2	0	1	6	12	0	0	0	0

Appendix F – San Jose Approved Trip Inventory

AM PROJECT TRIPS

06/15/2020

Intersection of : E Brokaw Rd & NB 880 From Brokaw Rp

Traffix Node Number : 3050

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
AIRPORT Retail/Commercial SAN JOSE INTL AIRPORT EXPANSION OF AIRPORT	0	0	0	0	0	0	0	1	8	1	0	0
H14-020 (3-04341) Office/Industrial 750 RIDDER PARK DRIVE SUPERMICRO	0	0	0	0	0	0	0	15	0	3	1	0
NSJ LEGACY NORTH SAN JOSE	34	0	39	0	0	0	0	99	19	7	129	0
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	12	0	1	1	0
PDC03-108 RES (3-16680) Residential BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RESIDENTIAL)	5	0	0	0	0	0	0	25	0	33	13	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
PRE05-430 COMM (3-12552) Retail/Commercial PEPPER LANE	0	0	0	0	0	0	0	0	0	0	0	0

TOTAL:	**39**	**0**	**39**	**0**	**0**	**0**	**0**	**152**	**27**	**45**	**144**	**0**

	LEFT	THRU	RIGHT
NORTH	0	0	0
EAST	45	144	0
SOUTH	39	0	39
WEST	0	152	27

PM PROJECT TRIPS

06/15/2020

Intersection of : E Brokaw Rd & NB 880 From Brokaw Rp

Traffix Node Number : 3050

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
AIRPORT Retail/Commercial SAN JOSE INTL AIRPORT EXPANSION OF AIRPORT	0	0	0	0	0	0	0	1	9	0	1	0
H14-020 (3-04341) Office/Industrial 750 RIDDER PARK DRIVE SUPERMICRO	0	0	0	0	0	0	0	8	0	7	2	0
NSJ LEGACY NORTH SAN JOSE	5	0	20	0	0	0	0	180	54	13	165	0
PDC03-108 OFF (3-16680) Retail/Commercial BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFI BERRYESSA FLEA MKT (OFFICE)	1	0	0	0	0	0	0	2	0	7	3	0
PDC03-108 RES (3-16680) Residential BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RESIDENTIAL)	3	0	0	0	0	0	0	45	0	17	7	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
PRE05-430 COMM (3-12552) Retail/Commercial PEPPER LANE	0	0	0	0	0	0	0	0	0	0	0	0

TOTAL:	**9**	**0**	**20**	**0**	**0**	**0**	**0**	**236**	**63**	**44**	**178**	**0**

	LEFT	THRU	RIGHT
NORTH	0	0	0
EAST	44	178	0
SOUTH	9	0	20
WEST	0	236	63

AM PROJECT TRIPS

06/15/2020

Intersection of : E Brokaw Rd & O Toole Av / SB 880 From Brokaw Rp

Traffix Node Number : 3051

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
AIRPORT Retail/Commercial SAN JOSE INTL AIRPORT EXPANSION OF AIRPORT	0	0	0	0	0	7	0	10	0	0	1	0
H14-020 (3-04341) Office/Industrial 750 RIDDER PARK DRIVE SUPERMICRO	0	0	0	10	0	0	0	6	0	0	1	0
NSJ LEGACY NORTH SAN JOSE	0	0	0	22	5	50	0	115	22	44	129	0
PDC03-108 OFF (3-16680) Retail/Commercial BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFI BERRYESSA FLEA MKT (OFFICE)	0	0	0	8	0	0	0	4	1	0	1	0
PDC03-108 RES (3-16680) Residential BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RESIDENTIAL)	0	0	0	18	0	0	0	7	3	0	19	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
PRE05-430 COMM (3-12552) Retail/Commercial PEPPER LANE	0	0	0	0	0	0	0	0	0	0	0	0

TOTAL:	**0**	**0**	**0**	**58**	**5**	**57**	**0**	**142**	**26**	**44**	**151**	**0**

	LEFT	THRU	RIGHT
NORTH	58	5	57
EAST	44	151	0
SOUTH	0	0	0
WEST	0	142	26

PM PROJECT TRIPS

06/15/2020

Intersection of : E Brokaw Rd & O Toole Av / SB 880 From Brokaw Rp

Traffix Node Number : 3051

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
AIRPORT Retail/Commercial SAN JOSE INTL AIRPORT EXPANSION OF AIRPORT	0	0	0	0	0	9	0	11	0	0	1	0
H14-020 (3-04341) Office/Industrial 750 RIDDER PARK DRIVE SUPERMICRO	0	0	0	5	0	0	0	3	0	0	2	0
NSJ LEGACY NORTH SAN JOSE	0	0	0	45	36	15	0	210	37	51	142	0
PDC03-108 OFF (3-16680) Retail/Commercial BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFI BERRYESSA FLEA MKT (OFFICE)	0	0	0	1	0	0	0	1	0	0	4	0
PDC03-108 RES (3-16680) Residential BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RESIDENTIAL)	0	0	0	33	0	0	0	13	5	0	10	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
PRE05-430 COMM (3-12552) Retail/Commercial PEPPER LANE	0	0	0	10	0	0	0	0	0	0	0	9

TOTAL:	**0**	**0**	**0**	**94**	**36**	**24**	**0**	**238**	**42**	**51**	**159**	**9**

	LEFT	THRU	RIGHT
NORTH	94	36	24
EAST	51	159	9
SOUTH	0	0	0
WEST	0	238	42

AM PROJECT TRIPS

06/15/2020

Intersection of : E Brokaw Rd & Junction Av

Traffix Node Number : 3356

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
H14-020 (3-04341) Office/Industrial 750 RIDDER PARK DRIVE SUPERMICRO	0	0	0	0	0	0	0	6	0	0	1	0
H83-01-001 (3-12093) Office/Industrial JUNCTION AV, N/O PLUMERIA ULTRATECH STEPPER - ORIGINAL APPROVED TRIPS	0	0	0	1	0	0	0	0	0	0	0	8
NSJ LEGACY NORTH SAN JOSE	1	3	1	12	7	9	31	115	14	13	140	37
PDC03-108 OFF (3-16680) Retail/Commercial BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFI BERRYESSA FLEA MKT (OFFICE)	0	0	0	1	0	0	0	3	0	0	0	0
PDC03-108 RES (3-16680) Residential BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RESIDENTIAL)	0	0	0	3	0	0	0	6	0	0	12	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	0	0	0

TOTAL:	**1**	**3**	**1**	**17**	**7**	**9**	**31**	**130**	**14**	**13**	**153**	**52**

	LEFT	**THRU**	**RIGHT**
NORTH	17	7	9
EAST	13	153	52
SOUTH	1	3	1
WEST	31	130	14

PM PROJECT TRIPS

06/15/2020

Intersection of : E Brokaw Rd & Junction Av

Traffix Node Number : 3356

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
H14-020 (3-04341) Office/Industrial 750 RIDDER PARK DRIVE SUPERMICRO	0	0	0	0	0	0	0	3	0	0	2	0
H83-01-001 (3-12093) Office/Industrial JUNCTION AV, N/O PLUMERIA ULTRATECH STEPPER - ORIGINAL APPROVED TRIPS	0	0	0	8	0	0	0	0	0	0	0	1
NSJ LEGACY NORTH SAN JOSE	5	3	15	57	25	28	10	173	15	22	152	18
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	1	0	0	3	1
PDC03-108 RES (3-16680) Residential BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC BERRYESSA FLEA MKT (RESIDENTIAL)	0	0	0	6	0	0	0	11	0	0	6	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:	**5**	**3**	**15**	**71**	**25**	**28**	**10**	**188**	**15**	**22**	**163**	**23**

	LEFT	**THRU**	**RIGHT**
NORTH	71	25	28
EAST	22	163	23
SOUTH	5	3	15
WEST	10	188	15

AM PROJECT TRIPS

06/15/2020

Intersection of : Charcot Av & Junction Av

Traffix Node Number : 3394

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
H83-01-001 (3-12093) Office/Industrial JUNCTION AV, N/O PLUMERIA ULTRATECH STEPPER - ORIGINAL APPROVED TRIPS	0	8	0	0	1	0	0	0	0	0	0	0
NSJ LEGACY NORTH SAN JOSE	9	61	13	4	23	8	13	22	4	49	72	10
TOTAL:	**9**	**69**	**13**	**4**	**24**	**8**	**13**	**22**	**4**	**49**	**72**	**10**

	LEFT	THRU	RIGHT
NORTH	4	24	8
EAST	49	72	10
SOUTH	9	69	13
WEST	13	22	4

PM PROJECT TRIPS

06/15/2020

Intersection of : Charcot Av & Junction Av

Traffix Node Number : 3394

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
H83-01-001 (3-12093) Office/Industrial JUNCTION AV, N/O PLUMERIA ULTRATECH STEPPER - ORIGINAL APPROVED TRIPS	0	1	0	0	8	0	0	0	0	0	0	0
NSJ LEGACY NORTH SAN JOSE	11	33	10	17	83	14	24	107	34	23	43	8
TOTAL:	**11**	**34**	**10**	**17**	**91**	**14**	**24**	**107**	**34**	**23**	**43**	**8**

	LEFT	THRU	RIGHT
NORTH	17	91	14
EAST	23	43	8
SOUTH	11	34	10
WEST	24	107	34

AM PROJECT TRIPS

06/15/2020

Intersection of : Junction Av & E Trimble Rd

Traffix Node Number : 3614

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
H83-01-001 (3-12093) Office/Industrial JUNCTION AV, N/O PLUMERIA ULTRATECH STEPPER - ORIGINAL APPROVED TRIPS	0	8	0	0	1	0	0	0	0	0	0	0
H97-03-018 (3-12093) Office/Industrial JUNCTION AV, N/O PLUMERIA ULTRATECH STEPPER	0	3	0	0	3	0	0	0	0	0	0	0
NSJ LEGACY NORTH SAN JOSE	11	26	5	3	12	5	20	74	9	8	139	17
TOTAL:	**11**	**37**	**5**	**3**	**16**	**5**	**20**	**74**	**9**	**8**	**139**	**17**

	LEFT	THRU	RIGHT
NORTH	3	16	5
EAST	8	139	17
SOUTH	11	37	5
WEST	20	74	9

PM PROJECT TRIPS

06/15/2020

Intersection of : Junction Av & E Trimble Rd

Traffix Node Number : 3614

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
H83-01-001 (3-12093) Office/Industrial JUNCTION AV, N/O PLUMERIA ULTRATECH STEPPER - ORIGINAL APPROVED TRIPS	0	1	0	0	8	0	0	0	0	0	0	0
H97-03-018 (3-12093) Office/Industrial JUNCTION AV, N/O PLUMERIA ULTRATECH STEPPER	0	3	0	0	3	0	0	0	0	0	0	0
NSJ LEGACY NORTH SAN JOSE	29	25	19	5	29	6	4	177	26	15	111	2
TOTAL:	**29**	**29**	**19**	**5**	**40**	**6**	**4**	**177**	**26**	**15**	**111**	**2**

	LEFT	THRU	RIGHT
NORTH	5	40	6
EAST	15	111	2
SOUTH	29	29	19
WEST	4	177	26

AM PROJECT TRIPS

06/15/2020

Intersection of : Montague Ex & Trimble Rd / New Street & E Trimble Rd

Traffix Node Number : 5808

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
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	1	0
H14-020 (3-04341) Office/Industrial 750 RIDDER PARK DRIVE SUPERMICRO	0	0	0	0	0	0	0	4	0	0	1	0
H83-01-001 (3-12093) Office/Industrial JUNCTION AV, N/O PLUMERIA ULTRATECH STEPPER - ORIGINAL APPROVED TRIPS	0	0	0	0	0	0	0	4	0	0	29	0
H89-01-008 (3-08288) LEGACY TASMAN & ZANKER (SW/C) OFC 88,433;IND 88433, WHSE	0	0	0	0	0	0	0	5	0	0	16	0
H97-03-018 (3-12093) Office/Industrial JUNCTION AV, N/O PLUMERIA ULTRATECH STEPPER	0	0	0	0	0	0	0	1	0	0	13	0
NSJ LEGACY NORTH SAN JOSE	8	0	87	0	0	0	0	281	6	112	219	0
PD13-012 (3-09684) Office/Industrial NW CORNER OF SR237 AND N. FIRST STREET SOUTH BAY	0	0	0	0	0	0	0	3	0	0	11	0

AM PROJECT TRIPS

06/15/2020

Intersection of : Montague Ex & Trimble Rd / New Street & E Trimble Rd

Traffix Node Number : 5808

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
PD13-039 (3-18698) Office/Industrial NW CORNER OF NORTHECH PKWY AND DISK DR TRAMMEL CROW (R&D)	0	0	0	0	0	0	0	0	0	0	0	0
PD14-007 (3-18698) Office/Industrial NW CORNER OF NORTECH PKWY AND DISK DR TRAMMEL CROW (MFG.)	0	0	0	0	0	0	0	1	0	0	7	0
TOTAL:	**8**	**0**	**87**	**0**	**0**	**0**	**0**	**299**	**6**	**112**	**297**	**0**

	LEFT	THRU	RIGHT
NORTH	0	0	0
EAST	112	297	0
SOUTH	8	0	87
WEST	0	299	6

PM PROJECT TRIPS

06/15/2020

Intersection of : Montague Ex & Trimble Rd / New Street & E Trimble Rd

Traffix Node Number : 5808

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
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	1	0
H14-020 (3-04341) Office/Industrial 750 RIDDER PARK DRIVE SUPERMICRO	0	0	0	0	0	0	0	2	0	0	3	0
H83-01-001 (3-12093) Office/Industrial JUNCTION AV, N/O PLUMERIA ULTRATECH STEPPER - ORIGINAL APPROVED TRIPS	0	0	0	0	0	0	0	29	0	0	4	0
H89-01-008 (3-08288) LEGACY TASMAN & ZANKER (SW/C) OFC 88,433;IND 88433, WHSE	0	0	0	0	0	0	0	16	0	0	5	0
H97-03-018 (3-12093) Office/Industrial JUNCTION AV, N/O PLUMERIA ULTRATECH STEPPER	0	0	0	0	0	0	0	13	0	0	1	0
NSJ LEGACY NORTH SAN JOSE	5	0	176	0	0	0	0	196	1	162	222	0
PD13-012 (3-09684) Office/Industrial NW CORNER OF SR237 AND N. FIRST STREET SOUTH BAY	0	2	0	0	0	0	0	6	0	0	1	0

PM PROJECT TRIPS

06/15/2020

Intersection of : Montague Ex & Trimble Rd / New Street & E Trimble Rd

Traffix Node Number : 5808

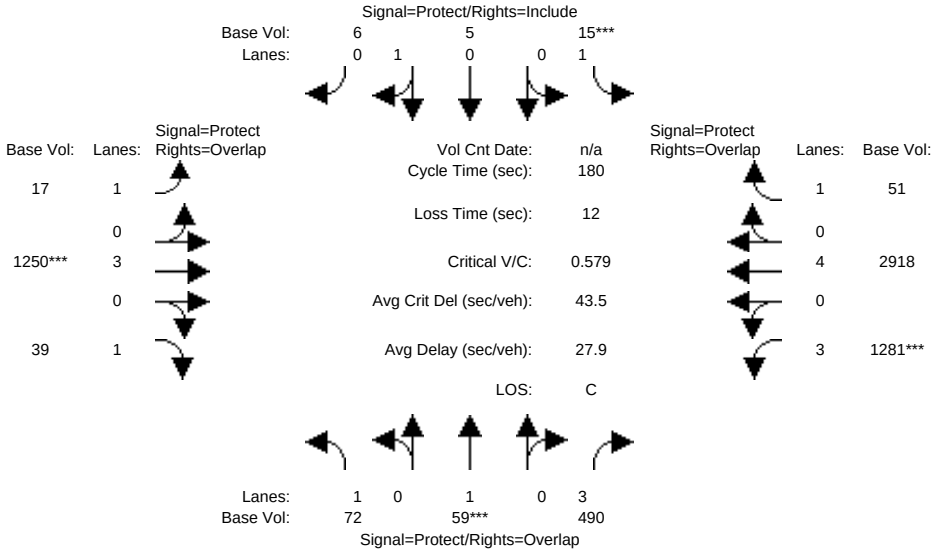
Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
PD13-039 (3-18698) Office/Industrial NW CORNER OF NORTHECH PKWY AND DISK DR TRAMMEL CROW (R&D)	0	0	0	0	0	0	0	0	0	0	0	0
PD14-007 (3-18698) Office/Industrial NW CORNER OF NORTECH PKWY AND DISK DR TRAMMEL CROW (MFG.)	0	2	0	0	0	0	0	6	0	0	1	0
TOTAL:	**5**	**4**	**176**	**0**	**0**	**0**	**0**	**268**	**1**	**162**	**238**	**0**

	LEFT	THRU	RIGHT
NORTH	0	0	0
EAST	162	238	0
SOUTH	5	4	176
WEST	0	268	1

Appendix G – TRAFFIX Intersection Operations Analysis

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

Intersection #1: Montague / Trimble

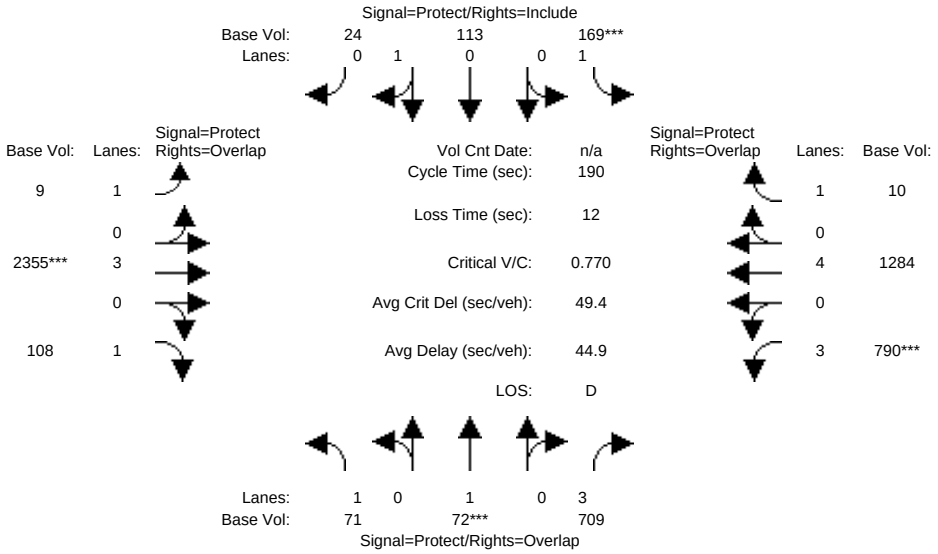


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	10	10	7	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	72	59	490	15	5	6	17	1250	39	1281	2918	51
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	72	59	490	15	5	6	17	1250	39	1281	2918	51
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:	72	59	490	15	5	6	17	1250	39	1281	2918	51
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	59	490	15	5	6	17	1250	39	1281	2918	51
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:	72	59	490	15	5	6	17	1250	39	1281	2918	51
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.80	0.92	1.00	0.92	0.92	1.00	0.92	0.80	1.00	0.92
Lanes:	1.00	1.00	3.00	1.00	0.43	0.57	1.00	3.00	1.00	3.00	4.00	1.00
Final Sat.:	1750	1900	4551	1750	825	990	1750	5700	1750	4551	7600	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.03	0.11	0.01	0.01	0.01	0.01	0.22	0.02	0.28	0.38	0.03
Crit Moves:		****		****				****		****		
Green/Cycle:	0.05	0.06	0.52	0.06	0.06	0.06	0.10	0.36	0.41	0.46	0.72	0.77
Volume/Cap:	0.87	0.56	0.21	0.15	0.09	0.09	0.09	0.61	0.05	0.61	0.53	0.04
Uniform Del:	85.2	82.9	23.5	81.0	79.4	79.4	73.0	47.2	32.3	36.2	11.6	4.7
IncremntDel:	58.0	6.6	0.0	0.7	0.4	0.4	0.2	0.5	0.0	0.5	0.1	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	143.2	89.4	23.5	81.7	79.7	79.7	73.2	47.7	32.4	36.8	11.7	4.8
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:	143.2	89.4	23.5	81.7	79.7	79.7	73.2	47.7	32.4	36.8	11.7	4.8
LOS by Move:	F	F	C	F	E	E	E	D	C	D	B	A
HCM2k95thQ:	12	8	11	2	1	1	2	32	3	36	31	1

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

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

Intersection #1: Montague / Trimble

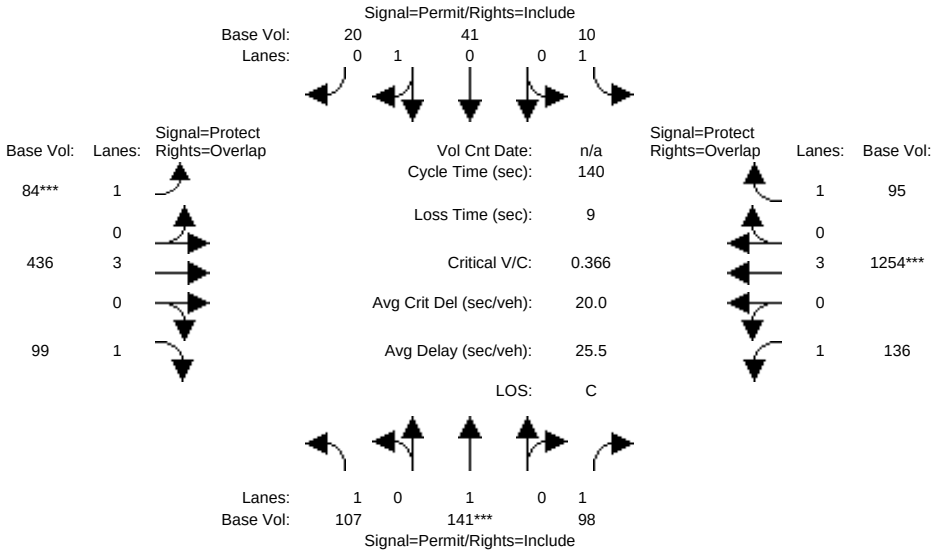


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	10	10	7	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	71	72	709	169	113	24	9	2355	108	790	1284	10
Growth 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:	71	72	709	169	113	24	9	2355	108	790	1284	10
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:	71	72	709	169	113	24	9	2355	108	790	1284	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	72	709	169	113	24	9	2355	108	790	1284	10
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:	71	72	709	169	113	24	9	2355	108	790	1284	10
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.80	0.92	1.00	0.92	0.92	1.00	0.92	0.80	1.00	0.92
Lanes:	1.00	1.00	3.00	1.00	0.81	0.19	1.00	3.00	1.00	3.00	4.00	1.00
Final Sat.:	1750	1900	4551	1750	1544	328	1750	5700	1750	4551	7600	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.16	0.10	0.07	0.07	0.01	0.41	0.06	0.17	0.17	0.01
Crit Moves:		****		****				****		****		
Green/Cycle:	0.06	0.05	0.28	0.12	0.11	0.11	0.18	0.53	0.60	0.22	0.58	0.70
Volume/Cap:	0.64	0.72	0.56	0.77	0.64	0.64	0.03	0.77	0.10	0.77	0.29	0.01
Uniform Del:	86.9	88.6	58.8	80.5	80.4	80.4	64.2	35.1	16.4	69.1	20.3	8.4
IncremntDel:	12.0	22.3	0.6	15.6	6.4	6.4	0.0	1.3	0.0	3.7	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	98.9	111	59.4	96.1	86.8	86.8	64.2	36.3	16.4	72.8	20.3	8.4
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:	98.9	111	59.4	96.1	86.8	86.8	64.2	36.3	16.4	72.8	20.3	8.4
LOS by Move:	F	F	E	F	F	F	E	D	B	E	C	A
HCM2k95thQ:	10	11	26	21	16	16	1	57	6	33	17	0

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

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

Intersection #2: Junction / Trimble

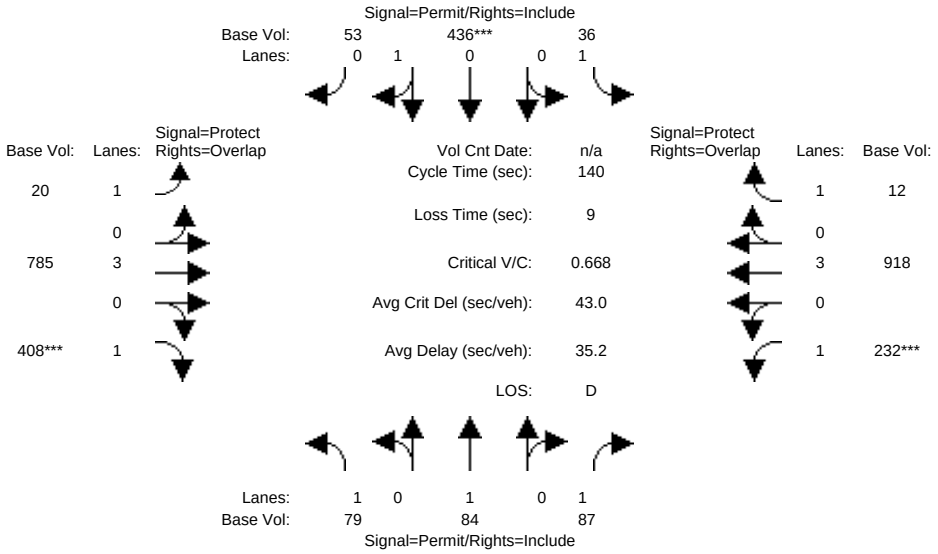


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	107	141	98	10	41	20	84	436	99	136	1254	95
Growth Adj:	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:	107	141	98	10	41	20	84	436	99	136	1254	95
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:	107	141	98	10	41	20	84	436	99	136	1254	95
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	141	98	10	41	20	84	436	99	136	1254	95
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:	107	141	98	10	41	20	84	436	99	136	1254	95
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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:	1.00	1.00	1.00	1.00	0.65	0.35	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	1900	1750	1750	1242	606	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.07	0.06	0.01	0.03	0.03	0.05	0.08	0.06	0.08	0.22	0.05
Crit Moves:		****					****				****	
Green/Cycle:	0.20	0.20	0.20	0.20	0.20	0.20	0.13	0.36	0.36	0.37	0.60	0.60
Volume/Cap:	0.30	0.37	0.28	0.03	0.16	0.16	0.37	0.21	0.16	0.21	0.37	0.09
Uniform Del:	47.4	48.0	47.1	44.7	46.0	46.0	55.5	30.7	30.1	30.2	14.2	11.8
IncremntDel:	0.5	0.6	0.4	0.0	0.2	0.2	1.0	0.1	0.1	0.2	0.1	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	47.9	48.6	47.5	44.8	46.2	46.2	56.5	30.8	30.2	30.4	14.3	11.8
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:	47.9	48.6	47.5	44.8	46.2	46.2	56.5	30.8	30.2	30.4	14.3	11.8
LOS by Move:	D	D	D	D	D	D	E	C	C	C	B	B
HCM2k95thQ:	8	10	7	1	4	4	8	8	6	8	17	4

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

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

Intersection #2: Junction / Trimble

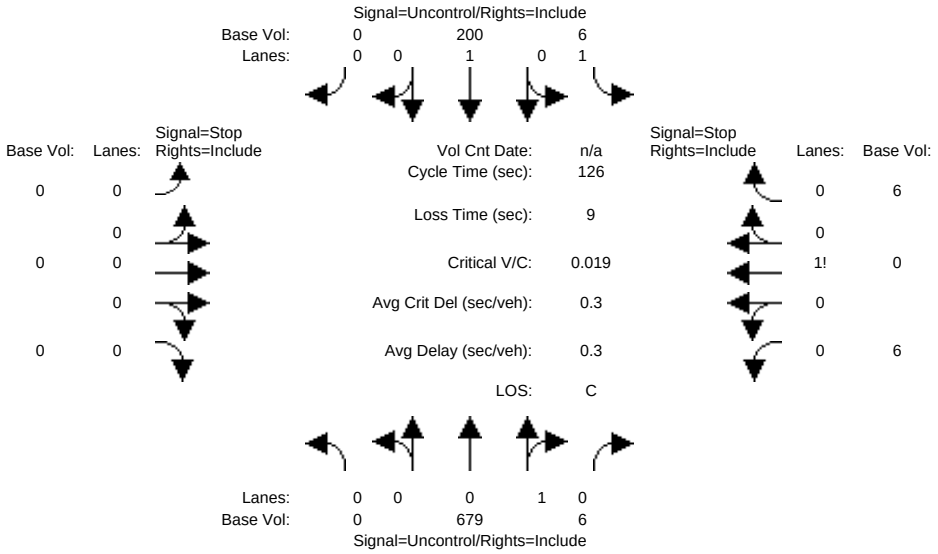


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	79	84	87	36	436	53	20	785	408	232	918	12
Growth Adj:	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:	79	84	87	36	436	53	20	785	408	232	918	12
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:	79	84	87	36	436	53	20	785	408	232	918	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	84	87	36	436	53	20	785	408	232	918	12
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:	79	84	87	36	436	53	20	785	408	232	918	12
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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:	1.00	1.00	1.00	1.00	0.88	0.12	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	1900	1750	1750	1678	204	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.04	0.05	0.02	0.26	0.26	0.01	0.14	0.23	0.13	0.16	0.01
Crit Moves:					****				****	****		
Green/Cycle:	0.39	0.39	0.39	0.39	0.39	0.39	0.13	0.35	0.35	0.20	0.42	0.42
Volume/Cap:	0.12	0.11	0.13	0.05	0.67	0.67	0.09	0.39	0.67	0.67	0.39	0.02
Uniform Del:	27.4	27.4	27.5	26.7	35.3	35.3	53.6	34.4	38.7	51.9	28.3	23.9
IncremntDel:	0.1	0.1	0.1	0.0	2.4	2.4	0.2	0.1	2.9	5.0	0.1	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	27.5	27.4	27.6	26.7	37.7	37.7	53.8	34.6	41.6	56.8	28.4	23.9
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:	27.5	27.4	27.6	26.7	37.7	37.7	53.8	34.6	41.6	56.8	28.4	23.9
LOS by Move:	C	C	C	C	D	D	D	C	D	E	C	C
HCM2k95thQ:	5	4	5	2	31	31	2	16	29	20	17	1

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

Level Of Service Computation Report
2000 HCM Unsignalized (Base Volume Alternative)
EX_AM

Intersection #3: Junction / Dado



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	679	6	6	200	0	0	0	0	6	0	6
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:	0	679	6	6	200	0	0	0	0	6	0	6
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:	0	679	6	6	200	0	0	0	0	6	0	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	679	6	6	200	0	0	0	0	6	0	6
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	685	xxxx	xxxxx	xxxx	xxxx	xxxxx	894	894	682
Potent Cap.:	xxxx	xxxx	xxxxx	918	xxxx	xxxxx	xxxx	xxxx	xxxxx	314	283	453
Move Cap.:	xxxx	xxxx	xxxxx	918	xxxx	xxxxx	xxxx	xxxx	xxxxx	313	281	453
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.02	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	370	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	15.1	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	C	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			15.1		
ApproachLOS:	*			*			*			C		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #3 Junction / Dado

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

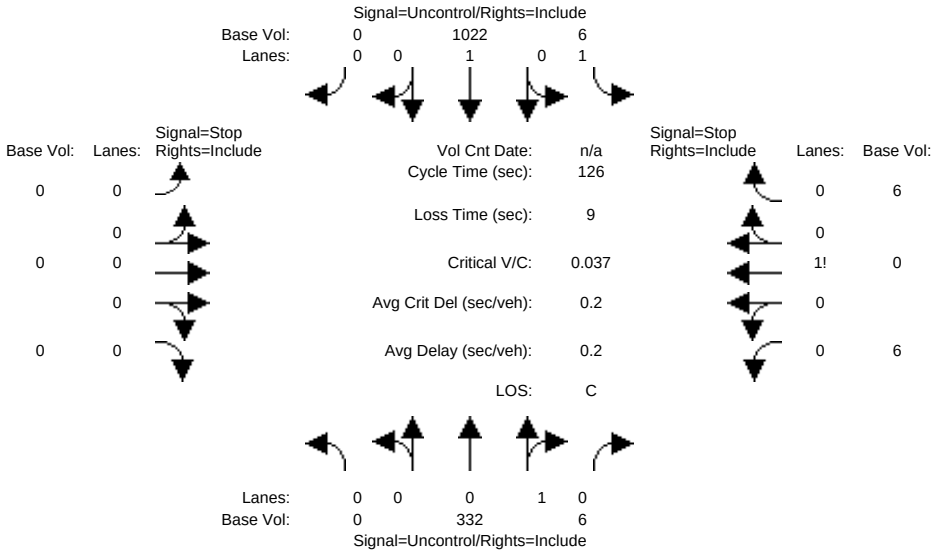
```
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    0  679     6     6  200     0     0    0     0     6    0     6
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             15.1
------------|---------------||---------------||---------------||---------------|
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=12]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=903]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #3 Junction / Dado
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    0  679     6     6  200     0     0    0     0     6    0     6
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             891
Minor Approach Volume:           12
Minor Approach Volume Threshold: 325
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Level Of Service Computation Report
2000 HCM Unsignalized (Base Volume Alternative)
EX_PM

Intersection #3: Junction / Dado



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	332	6	6	1022	0	0	0	0	6	0	6
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:	0	332	6	6	1022	0	0	0	0	6	0	6
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:	0	332	6	6	1022	0	0	0	0	6	0	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	332	6	6	1022	0	0	0	0	6	0	6
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	338	xxxx	xxxxx	xxxx	xxxx	xxxxx	1369	1369	335
Potent Cap.:	xxxx	xxxx	xxxxx	1232	xxxx	xxxxx	xxxx	xxxx	xxxxx	163	148	712
Move Cap.:	xxxx	xxxx	xxxxx	1232	xxxx	xxxxx	xxxx	xxxx	xxxxx	163	147	712
Volume/Cap:	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	0.04	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*

Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	265	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	19.2	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	C	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			19.2		
ApproachLOS:	*			*			*			C		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #3 Junction / Dado

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

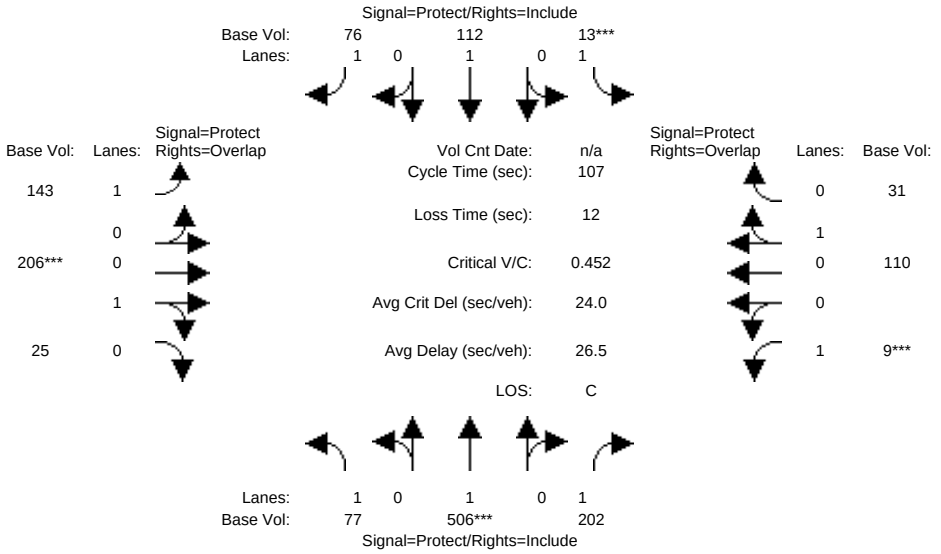
```
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    0  332     6     6 1022     0     0    0     0     6    0     6
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             19.2
------------|---------------||---------------||---------------||---------------|
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=12]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1378]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #3 Junction / Dado
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    0  332     6     6 1022     0     0    0     0     6    0     6
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1366
Minor Approach Volume:           12
Minor Approach Volume Threshold: 177
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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

Intersection #4: Junction / Charcot

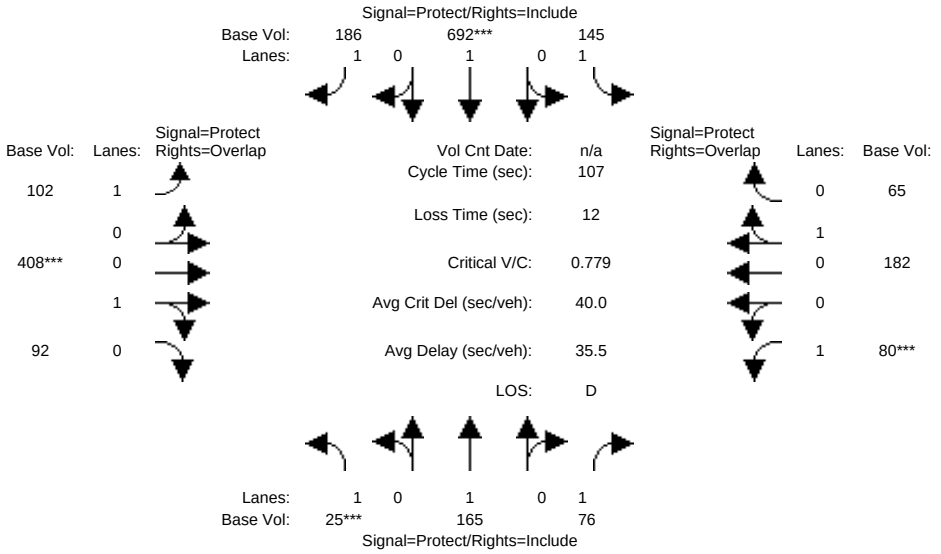


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	77	506	202	13	112	76	143	206	25	9	110	31
Growth Adj:	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:	77	506	202	13	112	76	143	206	25	9	110	31
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:	77	506	202	13	112	76	143	206	25	9	110	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	506	202	13	112	76	143	206	25	9	110	31
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:	77	506	202	13	112	76	143	206	25	9	110	31
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.12	1.00	0.77	0.23
Final Sat.:	1750	1900	1750	1750	1900	1750	1750	1679	204	1750	1455	410
Capacity Analysis Module:												
Vol/Sat:	0.04	0.27	0.12	0.01	0.06	0.04	0.08	0.12	0.12	0.01	0.08	0.08
Crit Moves:		****		****				****		****		
Green/Cycle:	0.24	0.52	0.52	0.07	0.34	0.34	0.14	0.24	0.48	0.07	0.16	0.23
Volume/Cap:	0.18	0.51	0.22	0.11	0.17	0.13	0.58	0.51	0.26	0.08	0.47	0.33
Uniform Del:	32.3	16.9	14.0	47.1	24.5	24.1	42.9	35.3	16.5	47.0	40.6	34.5
IncremntDel:	0.2	0.5	0.1	0.4	0.1	0.1	3.3	1.0	0.2	0.3	1.1	0.5
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	32.5	17.4	14.2	47.5	24.6	24.2	46.2	36.4	16.7	47.3	41.8	35.0
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:	32.5	17.4	14.2	47.5	24.6	24.2	46.2	36.4	16.7	47.3	41.8	35.0
LOS by Move:	C	B	B	D	C	C	D	D	B	D	D	C
HCM2k95thQ:	4	19	7	1	5	4	11	13	9	1	9	8

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

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

Intersection #4: Junction / Charcot

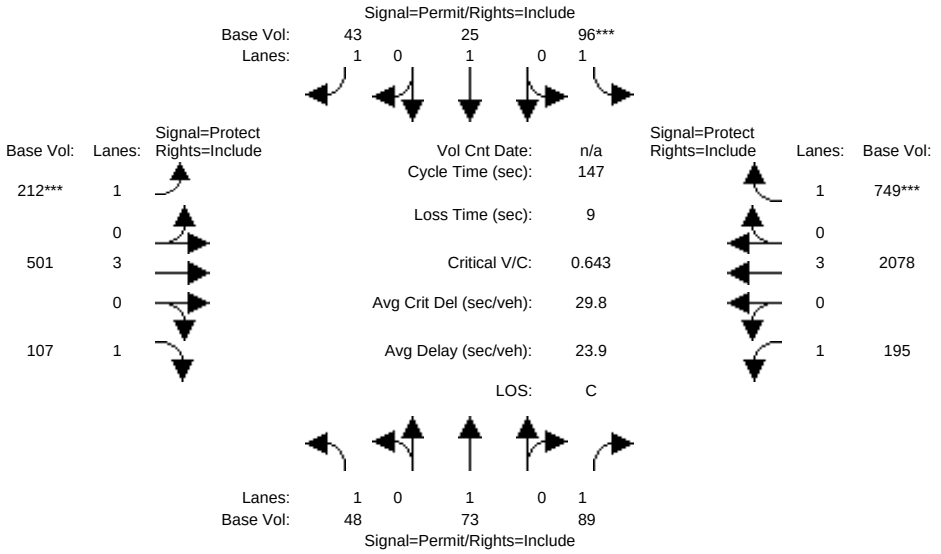


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	25	165	76	145	692	186	102	408	92	80	182	65
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	165	76	145	692	186	102	408	92	80	182	65
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:	25	165	76	145	692	186	102	408	92	80	182	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	165	76	145	692	186	102	408	92	80	182	65
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:	25	165	76	145	692	186	102	408	92	80	182	65
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.80	0.20	1.00	0.72	0.28
Final Sat.:	1750	1900	1750	1750	1900	1750	1750	1526	344	1750	1369	489
Capacity Analysis Module:												
Vol/Sat:	0.01	0.09	0.04	0.08	0.36	0.11	0.06	0.27	0.27	0.05	0.13	0.13
Crit Moves:	****				****			****		****		
Green/Cycle:	0.07	0.27	0.27	0.24	0.44	0.44	0.13	0.32	0.39	0.07	0.26	0.49
Volume/Cap:	0.22	0.33	0.16	0.35	0.83	0.24	0.46	0.83	0.69	0.70	0.51	0.27
Uniform Del:	47.4	31.6	30.1	34.1	26.7	19.0	43.3	33.7	27.5	49.0	33.9	15.8
IncremntDel:	1.0	0.4	0.2	0.5	7.3	0.2	1.5	9.8	2.9	17.4	1.0	0.2
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	48.4	31.9	30.3	34.6	34.0	19.2	44.8	43.5	30.5	66.4	34.9	15.9
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:	48.4	31.9	30.3	34.6	34.0	19.2	44.8	43.5	30.5	66.4	34.9	15.9
LOS by Move:	D	C	C	C	C	B	D	D	C	E	C	B
HCM2k95thQ:	2	8	4	8	34	8	8	31	26	8	14	9

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

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

Intersection #5: Junction / Brokaw

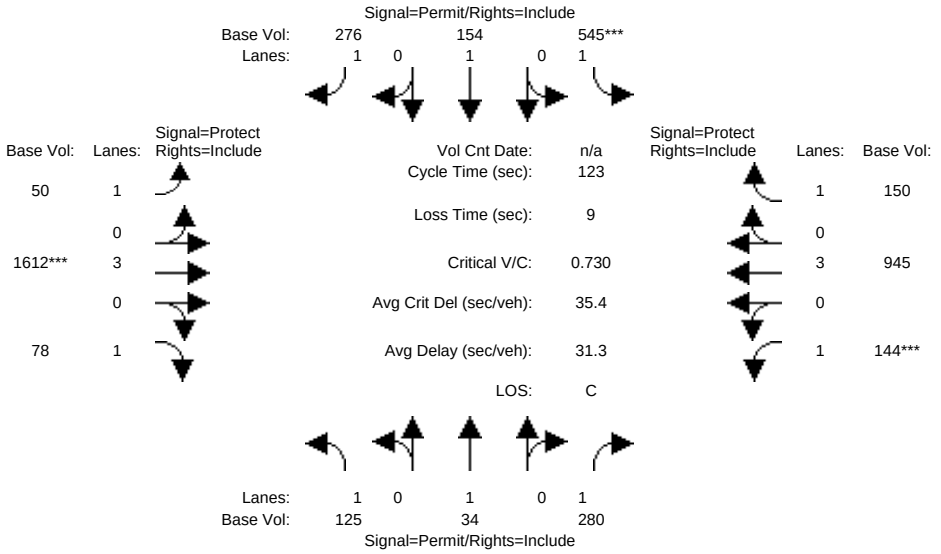


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	48	73	89	96	25	43	212	501	107	195	2078	749
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	48	73	89	96	25	43	212	501	107	195	2078	749
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:	48	73	89	96	25	43	212	501	107	195	2078	749
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	73	89	96	25	43	212	501	107	195	2078	749
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:	48	73	89	96	25	43	212	501	107	195	2078	749
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	1900	1750	1750	1900	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.04	0.05	0.05	0.01	0.02	0.12	0.09	0.06	0.11	0.36	0.43
Crit Moves:				****			****					****
Green/Cycle:	0.09	0.09	0.09	0.09	0.09	0.09	0.19	0.38	0.38	0.48	0.67	0.67
Volume/Cap:	0.32	0.45	0.60	0.64	0.15	0.29	0.64	0.23	0.16	0.23	0.55	0.64
Uniform Del:	63.2	64.0	64.8	65.1	62.3	63.0	55.1	31.3	30.4	22.6	13.0	14.4
IncremntDel:	1.3	2.0	6.4	9.2	0.4	1.1	4.3	0.1	0.1	0.1	0.2	1.2
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	64.5	65.9	71.2	74.3	62.8	64.1	59.4	31.4	30.6	22.8	13.1	15.6
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:	64.5	65.9	71.2	74.3	62.8	64.1	59.4	31.4	30.6	22.8	13.1	15.6
LOS by Move:	E	E	E	E	E	E	E	C	C	C	B	B
HCM2k95thQ:	5	7	10	9	2	4	19	10	7	10	28	35

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

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

Intersection #5: Junction / Brokaw

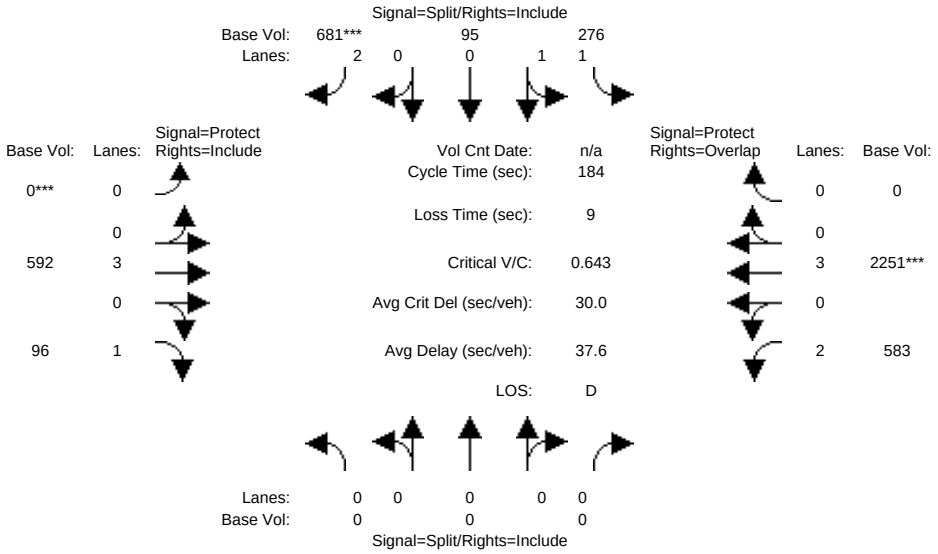


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	125	34	280	545	154	276	50	1612	78	144	945	150
Growth 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:	125	34	280	545	154	276	50	1612	78	144	945	150
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:	125	34	280	545	154	276	50	1612	78	144	945	150
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	125	34	280	545	154	276	50	1612	78	144	945	150
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:	125	34	280	545	154	276	50	1612	78	144	945	150
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	1900	1750	1750	1900	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.02	0.16	0.31	0.08	0.16	0.03	0.28	0.04	0.08	0.17	0.09
Crit Moves:				****				****		****		
Green/Cycle:	0.43	0.43	0.43	0.43	0.43	0.43	0.13	0.39	0.39	0.11	0.37	0.37
Volume/Cap:	0.17	0.04	0.38	0.73	0.19	0.37	0.22	0.73	0.12	0.73	0.45	0.23
Uniform Del:	21.8	20.6	24.1	29.4	22.0	24.0	48.2	32.2	24.2	52.8	29.0	26.5
IncremntDel:	0.1	0.0	0.3	3.7	0.1	0.3	0.5	1.3	0.1	13.0	0.1	0.2
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	21.9	20.6	24.4	33.0	22.1	24.3	48.7	33.4	24.2	65.7	29.2	26.7
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:	21.9	20.6	24.4	33.0	22.1	24.3	48.7	33.4	24.2	65.7	29.2	26.7
LOS by Move:	C	C	C	C	C	C	D	C	C	E	C	C
HCM2k95thQ:	6	1	15	30	7	14	4	31	4	11	16	8

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

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

Intersection #6: Brokaw / I880 SB Ramps

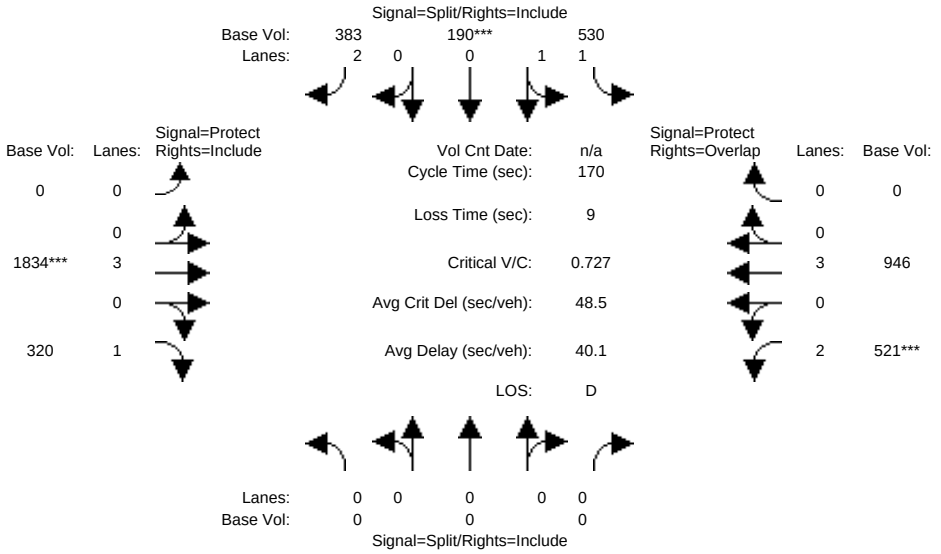


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	10	10	0	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	276	95	681	0	592	96	583	2251	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	276	95	681	0	592	96	583	2251	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:	0	0	0	276	95	681	0	592	96	583	2251	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	276	95	681	0	592	96	583	2251	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	1.00	1.00	1.00
FinalVolume:	0	0	0	276	95	681	0	592	96	583	2251	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.83	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	0.00	0.00	1.52	0.48	2.00	0.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:	0	0	0	2657	915	3150	0	5700	1750	3150	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.10	0.10	0.22	0.00	0.10	0.05	0.19	0.39	0.00
Crit Moves:						****	****				****	
Green/Cycle:	0.00	0.00	0.00	0.34	0.34	0.34	0.00	0.22	0.22	0.39	0.61	0.00
Volume/Cap:	0.00	0.00	0.00	0.31	0.31	0.64	0.00	0.47	0.25	0.47	0.64	0.00
Uniform Del:	0.0	0.0	0.0	45.2	45.2	51.7	0.0	62.3	59.1	41.5	22.6	0.0
IncremntDel:	0.0	0.0	0.0	0.1	0.1	1.4	0.0	0.3	0.3	0.3	0.4	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	0.0	0.0	0.0	45.3	45.3	53.0	0.0	62.6	59.4	41.8	23.0	0.0
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:	0.0	0.0	0.0	45.3	45.3	53.0	0.0	62.6	59.4	41.8	23.0	0.0
LOS by Move:	A	A	A	D	D	D	A	E	E	D	C	A
HCM2k95thQ:	0	0	0	15	15	33	0	17	9	25	42	0

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

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

Intersection #6: Brokaw / I880 SB Ramps

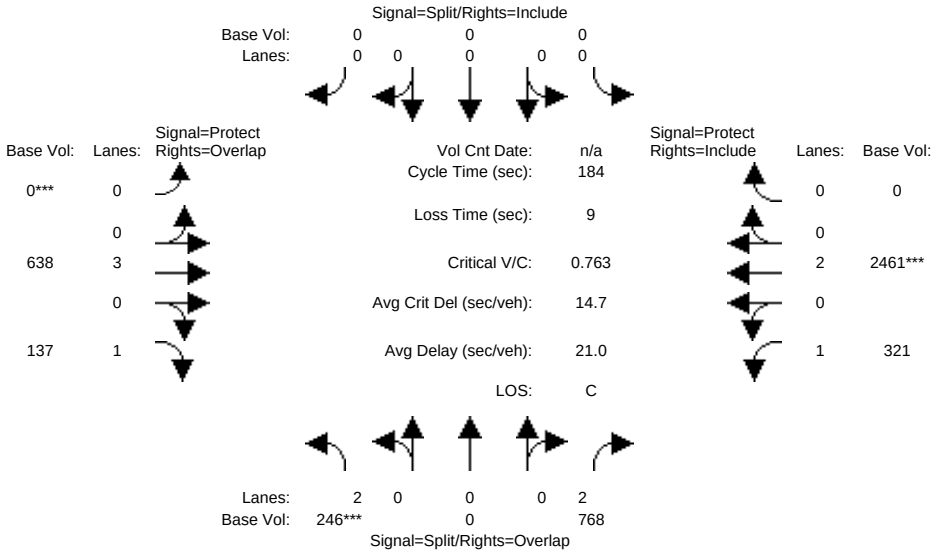


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	10	10	10	0	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	530	190	383	0	1834	320	521	946	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	530	190	383	0	1834	320	521	946	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:	0	0	0	530	190	383	0	1834	320	521	946	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	530	190	383	0	1834	320	521	946	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	1.00	1.00	1.00
FinalVolume:	0	0	0	530	190	383	0	1834	320	521	946	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.83	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	0.00	0.00	1.50	0.50	2.00	0.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:	0	0	0	2631	943	3150	0	5700	1750	3150	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.20	0.20	0.12	0.00	0.32	0.18	0.17	0.17	0.00
Crit Moves:					****			****		****		
Green/Cycle:	0.00	0.00	0.00	0.28	0.28	0.28	0.00	0.44	0.44	0.23	0.67	0.00
Volume/Cap:	0.00	0.00	0.00	0.73	0.73	0.44	0.00	0.73	0.41	0.73	0.25	0.00
Uniform Del:	0.0	0.0	0.0	55.6	55.6	50.6	0.0	38.9	32.3	60.8	11.1	0.0
IncremntDel:	0.0	0.0	0.0	2.7	2.7	0.4	0.0	1.1	0.4	3.8	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	0.0	0.0	0.0	58.4	58.4	50.9	0.0	40.0	32.7	64.5	11.1	0.0
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:	0.0	0.0	0.0	58.4	58.4	50.9	0.0	40.0	32.7	64.5	11.1	0.0
LOS by Move:	A	A	A	E	E	D	A	D	C	E	B	A
HCM2k95thQ:	0	0	0	32	32	18	0	41	21	27	12	0

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

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

Intersection #7: Brokaw / I880 NB Ramps

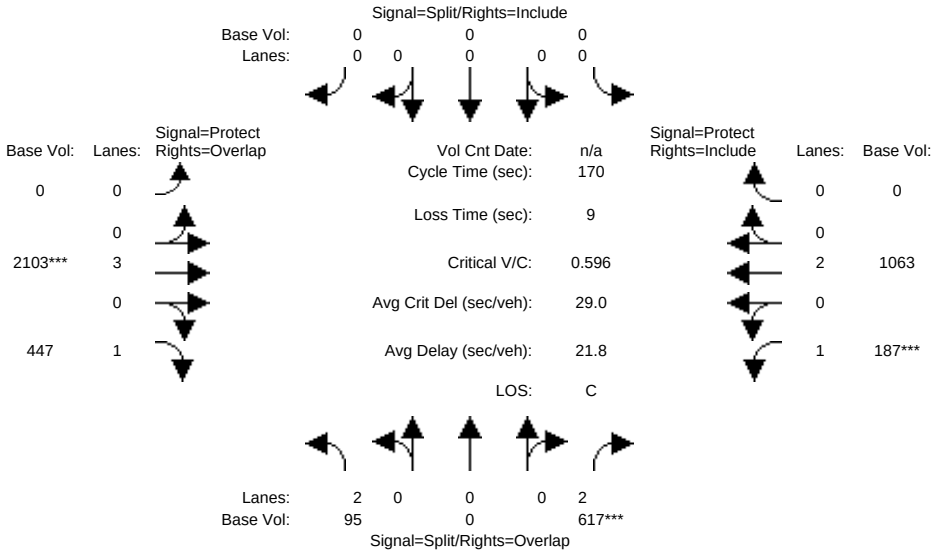


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	0	10	0	0	0	0	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	246	0	768	0	0	0	0	638	137	321	2461	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	246	0	768	0	0	0	0	638	137	321	2461	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:	246	0	768	0	0	0	0	638	137	321	2461	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	246	0	768	0	0	0	0	638	137	321	2461	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	1.00	1.00	1.00
FinalVolume:	246	0	768	0	0	0	0	638	137	321	2461	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	2.00	0.00
Final Sat.:	3150	0	3150	0	0	0	0	5700	1750	1750	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.08	0.00	0.24	0.00	0.00	0.00	0.00	0.11	0.08	0.18	0.65	0.00
Crit Moves:	****						****				****	
Green/Cycle:	0.10	0.00	0.63	0.00	0.00	0.00	0.00	0.32	0.42	0.53	0.85	0.00
Volume/Cap:	0.76	0.00	0.39	0.00	0.00	0.00	0.00	0.35	0.18	0.35	0.76	0.00
Uniform Del:	80.4	0.0	16.7	0.0	0.0	0.0	0.0	47.7	33.1	25.2	6.0	0.0
IncremntDel:	10.3	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.2	1.1	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	90.7	0.0	16.8	0.0	0.0	0.0	0.0	47.8	33.2	25.4	7.1	0.0
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:	90.7	0.0	16.8	0.0	0.0	0.0	0.0	47.8	33.2	25.4	7.1	0.0
LOS by Move:	F	A	B	A	A	A	A	D	C	C	A	A
HCM2k95thQ:	18	0	22	0	0	0	0	16	10	20	48	0

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

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

Intersection #7: Brokaw / I880 NB Ramps

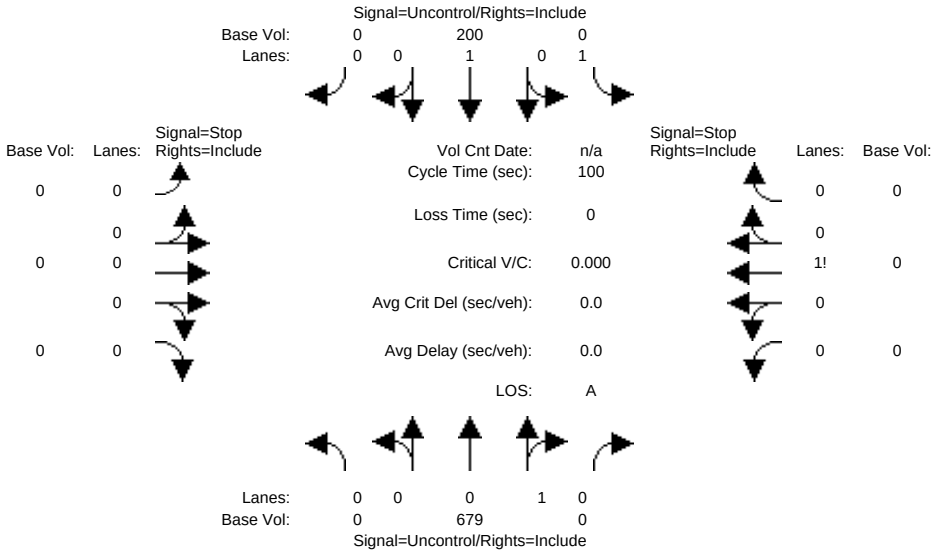


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	0	10	0	0	0	0	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	95	0	617	0	0	0	0	2103	447	187	1063	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	95	0	617	0	0	0	0	2103	447	187	1063	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:	95	0	617	0	0	0	0	2103	447	187	1063	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	95	0	617	0	0	0	0	2103	447	187	1063	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	1.00	1.00	1.00
FinalVolume:	95	0	617	0	0	0	0	2103	447	187	1063	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	2.00	0.00
Final Sat.:	3150	0	3150	0	0	0	0	5700	1750	1750	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.20	0.00	0.00	0.00	0.00	0.37	0.26	0.11	0.28	0.00
Crit Moves:			****					****		****		
Green/Cycle:	0.15	0.00	0.33	0.00	0.00	0.00	0.00	0.62	0.77	0.18	0.80	0.00
Volume/Cap:	0.20	0.00	0.60	0.00	0.00	0.00	0.00	0.60	0.33	0.60	0.35	0.00
Uniform Del:	63.4	0.0	47.7	0.0	0.0	0.0	0.0	19.6	6.2	64.1	4.8	0.0
IncremntDel:	0.2	0.0	1.0	0.0	0.0	0.0	0.0	0.3	0.1	3.1	0.1	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	63.6	0.0	48.6	0.0	0.0	0.0	0.0	19.9	6.3	67.2	4.9	0.0
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:	63.6	0.0	48.6	0.0	0.0	0.0	0.0	19.9	6.3	67.2	4.9	0.0
LOS by Move:	E	A	D	A	A	A	A	B	A	E	A	A
HCM2k95thQ:	5	0	28	0	0	0	0	35	14	19	14	0

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

Level Of Service Computation Report
2000 HCM Unsignalized (Base Volume Alternative)
EX_AM

Intersection #8: Junction / Project Dwy



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	679	0	0	200	0	0	0	0	0	0	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:	0	679	0	0	200	0	0	0	0	0	0	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:	0	679	0	0	200	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	679	0	0	200	0	0	0	0	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	879	879	679
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	321	288	455
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	321	288	455
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	0.00	0.00
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

Peak Hour Delay Signal Warrant Report

Intersection #8 Junction / Project Dwy

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

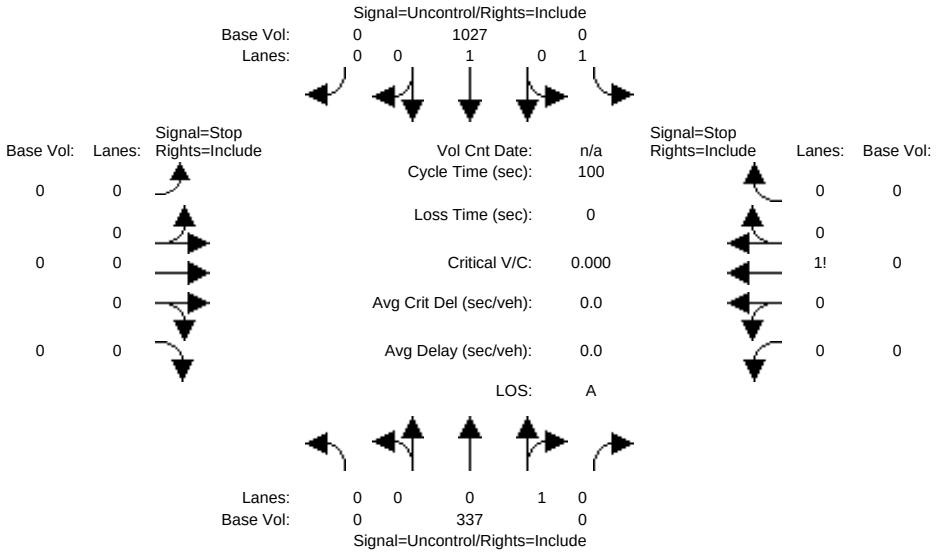
```
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1  0  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    0  679     0     0  200     0     0    0     0     0    0     0
ApproachDel:    xxxxxx           xxxxxx           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
               Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #8 Junction / Project Dwy
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1  0  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    0  679     0     0  200     0     0    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:              879
Minor Approach Volume:            0
Minor Approach Volume Threshold: 329
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Level Of Service Computation Report
2000 HCM Unsignalized (Base Volume Alternative)
EX_PM

Intersection #8: Junction / Project Dwy



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	337	0	0	1027	0	0	0	0	0	0	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:	0	337	0	0	1027	0	0	0	0	0	0	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:	0	337	0	0	1027	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	337	0	0	1027	0	0	0	0	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1364	1364	337
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	164	149	710
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	164	149	710
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	0.00	0.00
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #8 Junction / Project Dwy

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 1	0	0	1 0 1	0	0	0 0 0	0	0	0 0 1!	0	0
Initial Vol:	0 337	0		0 1027	0		0 0	0		0 0	0	
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #8 Junction / Project Dwy

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 1	0	0	1 0 1	0	0	0 0 0	0	0	0 0 1!	0	0
Initial Vol:	0 337	0		0 1027	0		0 0	0		0 0	0	

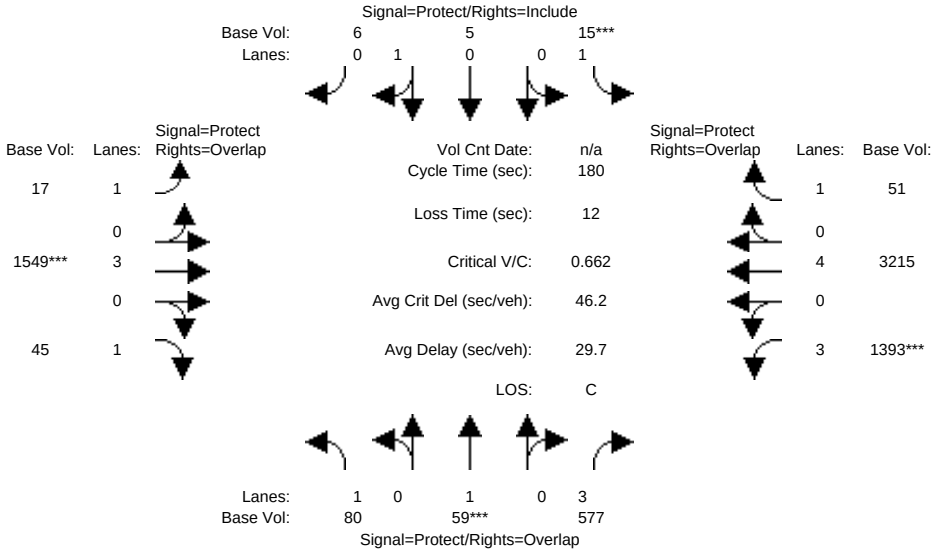
Major Street Volume: 1364
Minor Approach Volume: 0
Minor Approach Volume Threshold: 178

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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

Intersection #1: Montague / Trimble

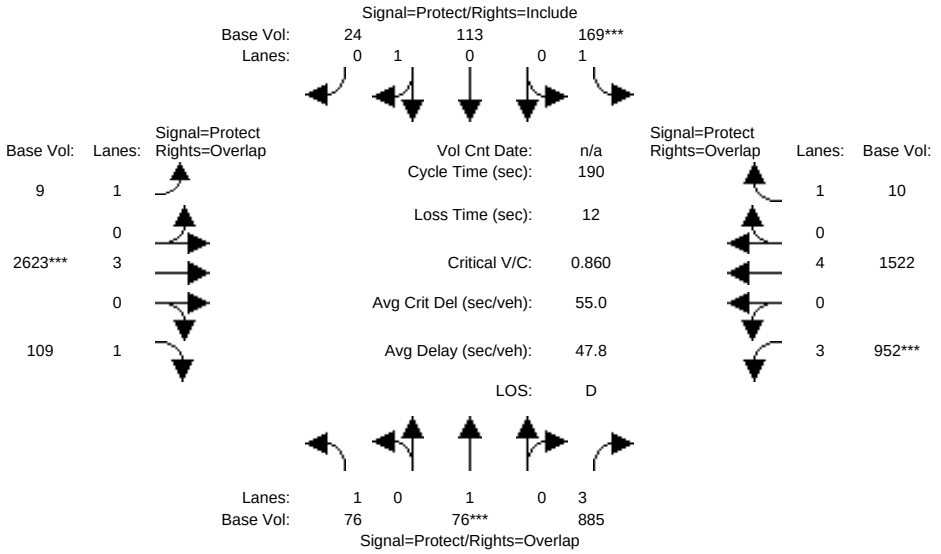


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	10	10	7	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	80	59	577	15	5	6	17	1549	45	1393	3215	51
Growth Adj:	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:	80	59	577	15	5	6	17	1549	45	1393	3215	51
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:	80	59	577	15	5	6	17	1549	45	1393	3215	51
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	59	577	15	5	6	17	1549	45	1393	3215	51
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:	80	59	577	15	5	6	17	1549	45	1393	3215	51
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.80	0.92	1.00	0.92	0.92	1.00	0.92	0.80	1.00	0.92
Lanes:	1.00	1.00	3.00	1.00	0.43	0.57	1.00	3.00	1.00	3.00	4.00	1.00
Final Sat.:	1750	1900	4551	1750	825	990	1750	5700	1750	4551	7600	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.03	0.13	0.01	0.01	0.01	0.01	0.27	0.03	0.31	0.42	0.03
Crit Moves:		****		****				****		****		
Green/Cycle:	0.05	0.06	0.49	0.06	0.06	0.06	0.10	0.39	0.44	0.44	0.73	0.78
Volume/Cap:	0.91	0.56	0.26	0.15	0.10	0.10	0.10	0.70	0.06	0.70	0.58	0.04
Uniform Del:	85.1	82.9	26.7	81.0	79.8	79.8	74.4	46.5	29.3	41.3	11.6	4.4
IncremntDel:	67.3	6.6	0.1	0.7	0.4	0.4	0.3	1.0	0.0	1.2	0.2	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	152.4	89.4	26.8	81.7	80.2	80.2	74.6	47.5	29.3	42.5	11.8	4.4
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:	152.4	89.4	26.8	81.7	80.2	80.2	74.6	47.5	29.3	42.5	11.8	4.4
LOS by Move:	F	F	C	F	F	F	E	D	C	D	B	A
HCM2k95thQ:	14	8	14	2	1	1	2	40	3	42	35	1

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

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

Intersection #1: Montague / Trimble

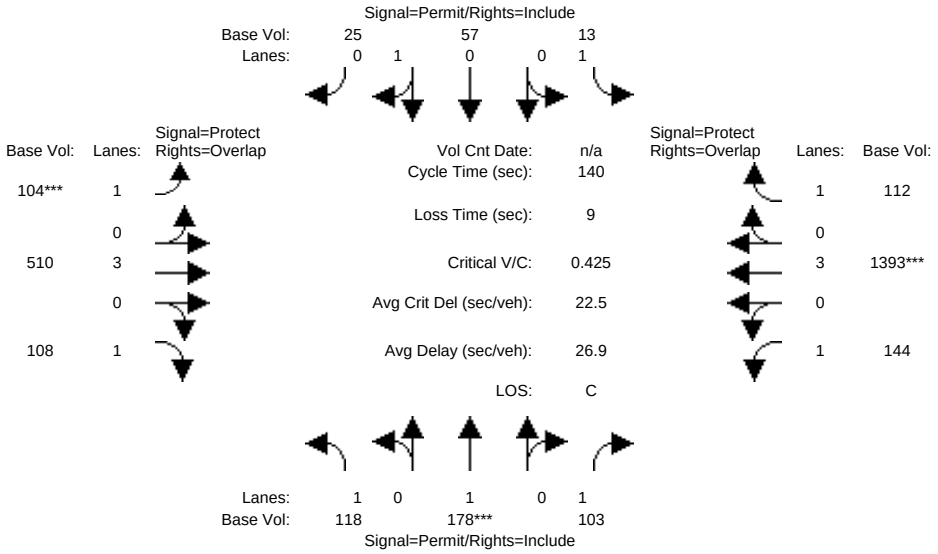


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	10	10	7	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	76	76	885	169	113	24	9	2623	109	952	1522	10
Growth 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:	76	76	885	169	113	24	9	2623	109	952	1522	10
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:	76	76	885	169	113	24	9	2623	109	952	1522	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	76	885	169	113	24	9	2623	109	952	1522	10
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:	76	76	885	169	113	24	9	2623	109	952	1522	10
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.80	0.92	1.00	0.92	0.92	1.00	0.92	0.80	1.00	0.92
Lanes:	1.00	1.00	3.00	1.00	0.81	0.19	1.00	3.00	1.00	3.00	4.00	1.00
Final Sat.:	1750	1900	4551	1750	1544	328	1750	5700	1750	4551	7600	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.19	0.10	0.07	0.07	0.01	0.46	0.06	0.21	0.20	0.01
Crit Moves:		****		****				****		****		
Green/Cycle:	0.06	0.05	0.29	0.11	0.10	0.10	0.16	0.53	0.59	0.24	0.61	0.72
Volume/Cap:	0.71	0.76	0.66	0.87	0.71	0.71	0.03	0.87	0.11	0.87	0.33	0.01
Uniform Del:	87.5	88.8	58.8	83.0	82.5	82.5	67.2	38.7	16.8	69.1	17.9	7.3
IncremntDel:	19.9	28.2	1.2	31.0	11.7	11.7	0.0	2.9	0.0	7.4	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	107.4	117	60.0	114.0	94.1	94.1	67.3	41.6	16.9	76.5	17.9	7.3
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:	107.4	117	60.0	114.0	94.1	94.1	67.3	41.6	16.9	76.5	17.9	7.3
LOS by Move:	F	F	E	F	F	F	E	D	B	E	B	A
HCM2k95thQ:	12	11	32	23	17	17	1	70	6	40	19	0

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

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

Intersection #2: Junction / Trimble

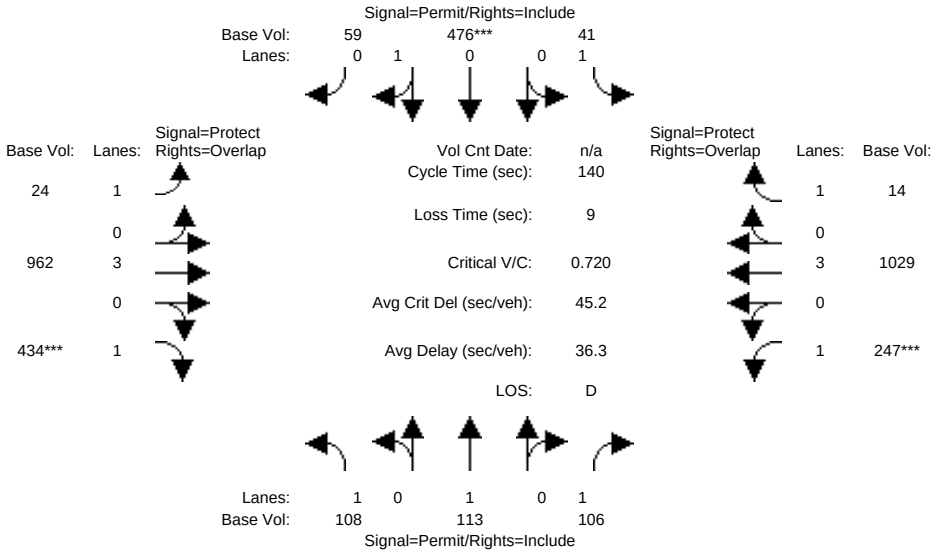


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	118	178	103	13	57	25	104	510	108	144	1393	112
Growth 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:	118	178	103	13	57	25	104	510	108	144	1393	112
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:	118	178	103	13	57	25	104	510	108	144	1393	112
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	118	178	103	13	57	25	104	510	108	144	1393	112
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:	118	178	103	13	57	25	104	510	108	144	1393	112
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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:	1.00	1.00	1.00	1.00	0.68	0.32	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	1900	1750	1750	1287	565	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.09	0.06	0.01	0.04	0.04	0.06	0.09	0.06	0.08	0.24	0.06
Crit Moves:		****					****				****	
Green/Cycle:	0.22	0.22	0.22	0.22	0.22	0.22	0.14	0.37	0.37	0.34	0.58	0.58
Volume/Cap:	0.31	0.42	0.27	0.03	0.20	0.20	0.42	0.24	0.17	0.24	0.42	0.11
Uniform Del:	45.6	46.9	45.2	42.8	44.5	44.5	55.1	30.3	29.4	33.0	16.7	13.5
IncremntDel:	0.5	0.7	0.4	0.0	0.2	0.2	1.2	0.1	0.1	0.2	0.1	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	46.1	47.6	45.6	42.9	44.7	44.7	56.2	30.3	29.5	33.2	16.8	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:	46.1	47.6	45.6	42.9	44.7	44.7	56.2	30.3	29.5	33.2	16.8	13.5
LOS by Move:	D	D	D	D	D	D	E	C	C	C	B	B
HCM2k95thQ:	9	12	7	1	6	6	9	10	6	9	20	5

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

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

Intersection #2: Junction / Trimble

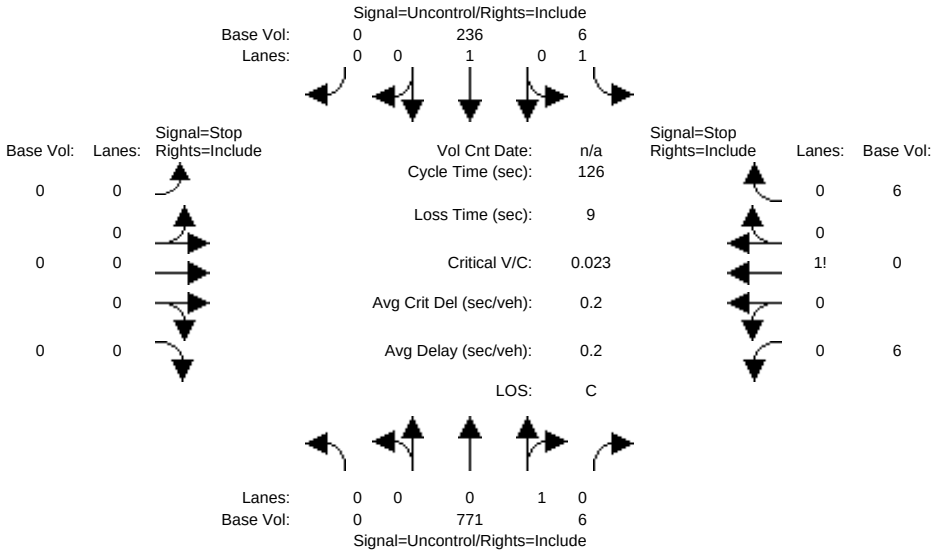


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	108	113	106	41	476	59	24	962	434	247	1029	14
Growth 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:	108	113	106	41	476	59	24	962	434	247	1029	14
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:	108	113	106	41	476	59	24	962	434	247	1029	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	108	113	106	41	476	59	24	962	434	247	1029	14
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:	108	113	106	41	476	59	24	962	434	247	1029	14
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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:	1.00	1.00	1.00	1.00	0.88	0.12	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	1900	1750	1750	1675	208	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.06	0.02	0.28	0.28	0.01	0.17	0.25	0.14	0.18	0.01
Crit Moves:					****				****	****		
Green/Cycle:	0.39	0.39	0.39	0.39	0.39	0.39	0.12	0.34	0.34	0.20	0.42	0.42
Volume/Cap:	0.16	0.15	0.15	0.06	0.72	0.72	0.12	0.49	0.72	0.72	0.43	0.02
Uniform Del:	27.3	27.2	27.3	26.2	35.8	35.8	55.3	36.2	40.0	52.7	28.4	23.5
IncremntDel:	0.1	0.1	0.1	0.0	3.4	3.4	0.3	0.2	4.2	7.2	0.1	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	27.4	27.3	27.4	26.3	39.2	39.2	55.6	36.4	44.2	59.9	28.5	23.5
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:	27.4	27.3	27.4	26.3	39.2	39.2	55.6	36.4	44.2	59.9	28.5	23.5
LOS by Move:	C	C	C	C	D	D	E	D	D	E	C	C
HCM2k95thQ:	6	6	6	2	34	34	2	20	31	22	19	1

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

Level Of Service Computation Report
2000 HCM Unsignalized (Base Volume Alternative)
BG_AM

Intersection #3: Junction / Dado



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	771	6	6	236	0	0	0	0	6	0	6
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:	0	771	6	6	236	0	0	0	0	6	0	6
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:	0	771	6	6	236	0	0	0	0	6	0	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	771	6	6	236	0	0	0	0	6	0	6
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	777	xxxx	xxxxx	xxxx	xxxx	xxxxx	1022	1022	774
Potent Cap.:	xxxx	xxxx	xxxxx	848	xxxx	xxxxx	xxxx	xxxx	xxxxx	264	238	402
Move Cap.:	xxxx	xxxx	xxxxx	848	xxxx	xxxxx	xxxx	xxxx	xxxxx	262	236	402
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.02	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	9.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	317	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	16.8	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	C	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			16.8		
ApproachLOS:	*			*			*			C		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #3 Junction / Dado

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

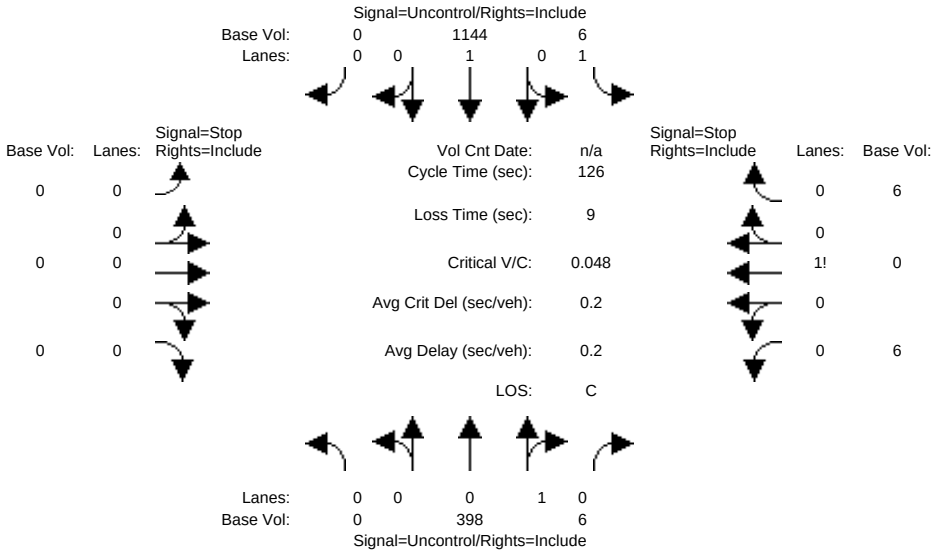
```
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    0  771     6     6  236     0     0    0     0     6    0     6
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             16.8
------------|---------------||---------------||---------------||---------------|
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=12]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1031]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #3 Junction / Dado
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    0  771     6     6  236     0     0    0     0     6    0     6
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1019
Minor Approach Volume:           12
Minor Approach Volume Threshold: 278
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Level Of Service Computation Report
2000 HCM Unsignalized (Base Volume Alternative)
BG_PM

Intersection #3: Junction / Dado



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	398	6	6	1144	0	0	0	0	6	0	6
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:	0	398	6	6	1144	0	0	0	0	6	0	6
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:	0	398	6	6	1144	0	0	0	0	6	0	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	398	6	6	1144	0	0	0	0	6	0	6
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	404	xxxx	xxxxx	xxxx	xxxx	xxxxx	1557	1557	401
Potent Cap.:	xxxx	xxxx	xxxxx	1166	xxxx	xxxxx	xxxx	xxxx	xxxxx	125	114	653
Move Cap.:	xxxx	xxxx	xxxxx	1166	xxxx	xxxxx	xxxx	xxxx	xxxxx	125	113	653
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.05	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	210	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.2	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	23.2	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	C	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			23.2		
ApproachLOS:	*			*			*			C		

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

Peak Hour Delay Signal Warrant Report

Intersection #3 Junction / Dado

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

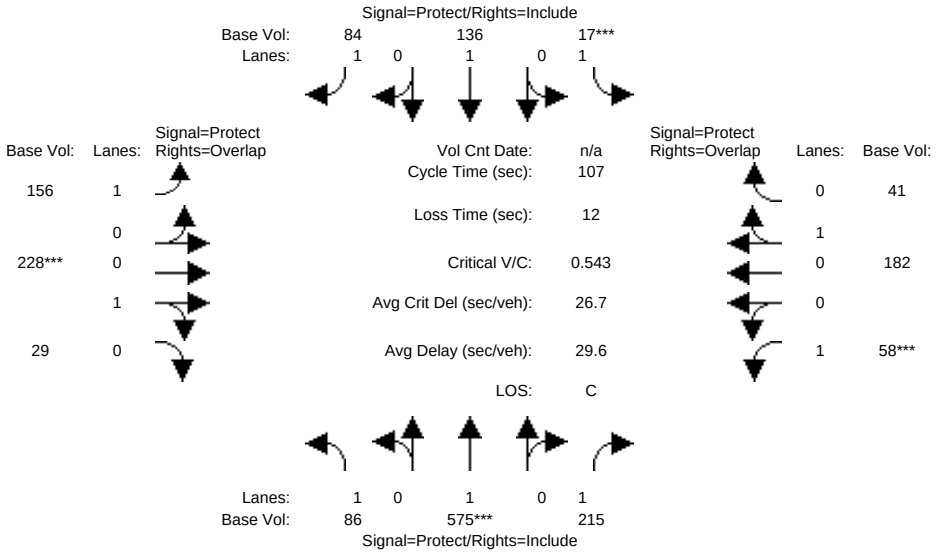
```
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    0  398     6     6 1144     0     0    0     0     6    0     6
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             23.2
------------|---------------||---------------||---------------||---------------|
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=12]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1566]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #3 Junction / Dado
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    0  398     6     6 1144     0     0    0     0     6    0     6
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1554
Minor Approach Volume:           12
Minor Approach Volume Threshold: 133
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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

Intersection #4: Junction / Charcot

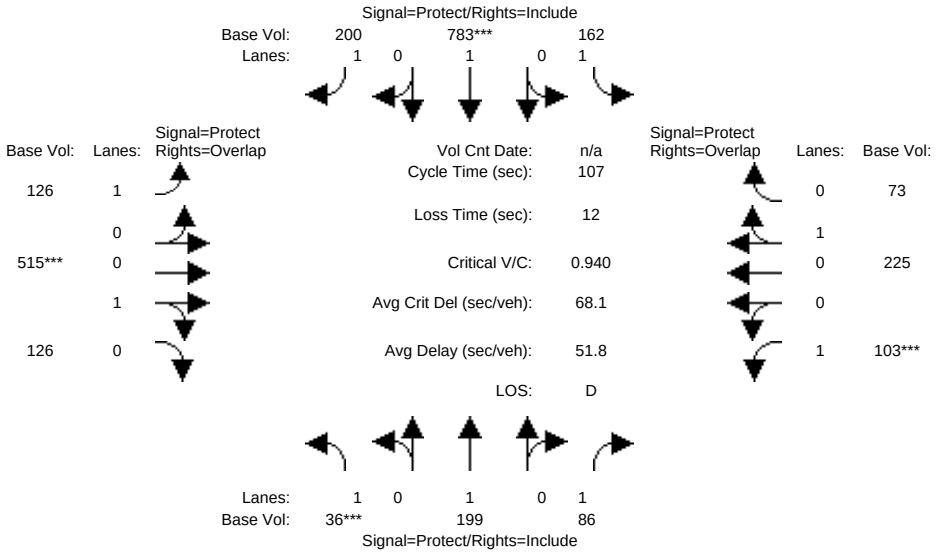


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	86	575	215	17	136	84	156	228	29	58	182	41
Growth Adj:	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:	86	575	215	17	136	84	156	228	29	58	182	41
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:	86	575	215	17	136	84	156	228	29	58	182	41
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	86	575	215	17	136	84	156	228	29	58	182	41
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:	86	575	215	17	136	84	156	228	29	58	182	41
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.12	1.00	0.80	0.20
Final Sat.:	1750	1900	1750	1750	1900	1750	1750	1669	212	1750	1527	344
Capacity Analysis Module:												
Vol/Sat:	0.05	0.30	0.12	0.01	0.07	0.05	0.09	0.14	0.14	0.03	0.12	0.12
Crit Moves:		****		****				****		****		
Green/Cycle:	0.24	0.52	0.52	0.07	0.35	0.35	0.13	0.24	0.48	0.07	0.17	0.24
Volume/Cap:	0.20	0.58	0.24	0.15	0.21	0.14	0.69	0.58	0.29	0.51	0.69	0.50
Uniform Del:	32.4	17.6	14.0	47.2	24.7	24.1	44.6	36.2	16.9	48.3	41.6	35.3
IncremntDel:	0.2	0.9	0.1	0.6	0.2	0.1	8.9	1.9	0.2	3.7	6.4	0.9
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	32.6	18.4	14.1	47.8	24.9	24.2	53.5	38.2	17.1	52.0	48.0	36.2
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:	32.6	18.4	14.1	47.8	24.9	24.2	53.5	38.2	17.1	52.0	48.0	36.2
LOS by Move:	C	B	B	D	C	C	D	D	B	D	D	D
HCM2k95thQ:	5	23	8	1	6	4	13	15	10	5	16	13

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

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

Intersection #4: Junction / Charcot

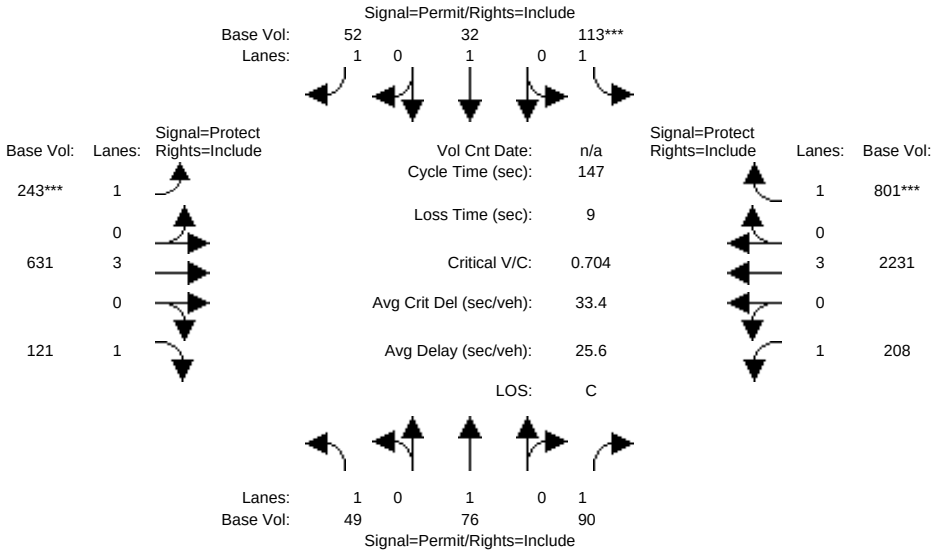


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	36	199	86	162	783	200	126	515	126	103	225	73
Growth Adj:	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:	36	199	86	162	783	200	126	515	126	103	225	73
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:	36	199	86	162	783	200	126	515	126	103	225	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	199	86	162	783	200	126	515	126	103	225	73
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:	36	199	86	162	783	200	126	515	126	103	225	73
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.79	0.21	1.00	0.74	0.26
Final Sat.:	1750	1900	1750	1750	1900	1750	1750	1501	367	1750	1405	456
Capacity Analysis Module:												
Vol/Sat:	0.02	0.10	0.05	0.09	0.41	0.11	0.07	0.34	0.34	0.06	0.16	0.16
Crit Moves:	****				****			****			****	
Green/Cycle:	0.07	0.25	0.25	0.22	0.41	0.41	0.13	0.34	0.41	0.07	0.28	0.51
Volume/Cap:	0.31	0.41	0.19	0.41	1.00	0.28	0.57	1.00	0.84	0.90	0.57	0.32
Uniform Del:	47.7	33.3	31.3	35.5	31.3	20.8	43.9	35.1	28.4	49.7	32.8	15.5
IncremntDel:	1.6	0.6	0.2	0.7	31.5	0.2	3.4	34.8	8.1	53.9	1.5	0.2
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	49.3	33.8	31.5	36.2	62.8	21.0	47.4	69.9	36.5	103.6	34.3	15.7
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:	49.3	33.8	31.5	36.2	62.8	21.0	47.4	69.9	36.5	103.6	34.3	15.7
LOS by Move:	D	C	C	D	E	C	D	E	D	F	C	B
HCM2k95thQ:	2	10	5	9	48	9	10	46	36	12	17	11

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

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

Intersection #5: Junction / Brokaw

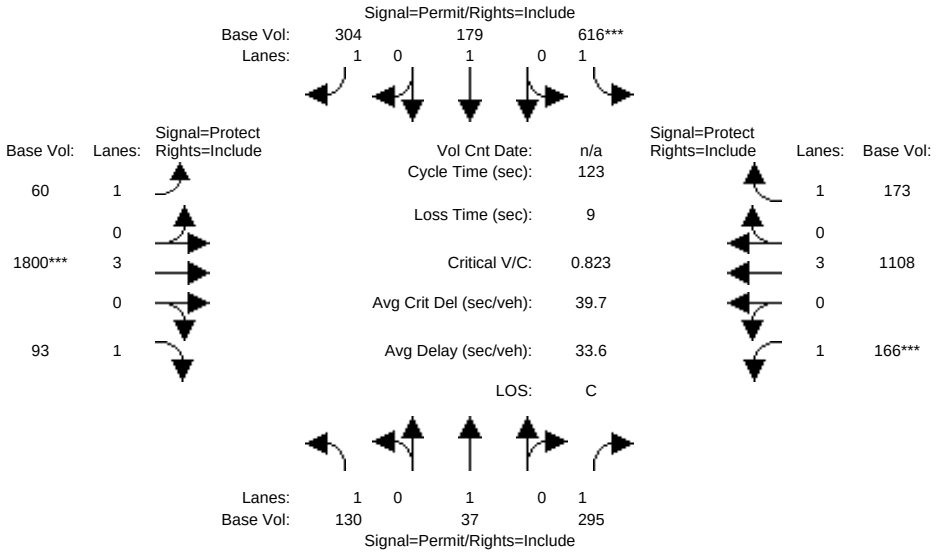


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	49	76	90	113	32	52	243	631	121	208	2231	801
Growth 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:	49	76	90	113	32	52	243	631	121	208	2231	801
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:	49	76	90	113	32	52	243	631	121	208	2231	801
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	76	90	113	32	52	243	631	121	208	2231	801
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:	49	76	90	113	32	52	243	631	121	208	2231	801
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	1900	1750	1750	1900	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.04	0.05	0.06	0.02	0.03	0.14	0.11	0.07	0.12	0.39	0.46
Crit Moves:				****			****					****
Green/Cycle:	0.09	0.09	0.09	0.09	0.09	0.09	0.20	0.41	0.41	0.44	0.65	0.65
Volume/Cap:	0.31	0.44	0.56	0.70	0.18	0.32	0.70	0.27	0.17	0.27	0.60	0.70
Uniform Del:	62.4	63.2	63.9	64.8	61.7	62.5	55.0	28.9	27.6	26.3	14.8	16.6
IncremntDel:	1.1	1.7	4.4	13.3	0.5	1.2	6.5	0.1	0.1	0.2	0.3	2.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	63.5	64.9	68.4	78.1	62.2	63.7	61.5	29.0	27.7	26.5	15.1	18.6
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:	63.5	64.9	68.4	78.1	62.2	63.7	61.5	29.0	27.7	26.5	15.1	18.6
LOS by Move:	E	E	E	E	E	E	E	C	C	C	B	B
HCM2k95thQ:	5	7	10	11	3	5	22	12	7	12	32	41

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

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

Intersection #5: Junction / Brokaw

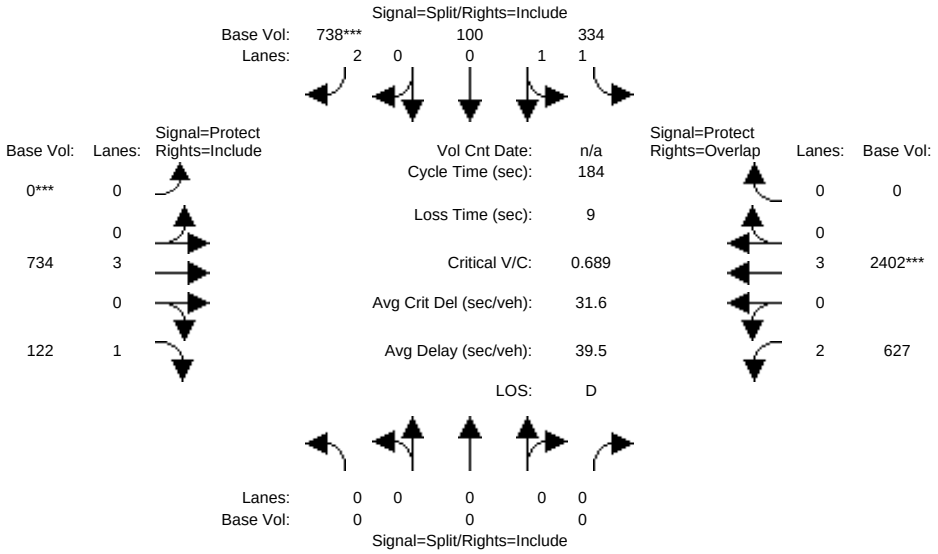


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	130	37	295	616	179	304	60	1800	93	166	1108	173
Growth 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:	130	37	295	616	179	304	60	1800	93	166	1108	173
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:	130	37	295	616	179	304	60	1800	93	166	1108	173
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	130	37	295	616	179	304	60	1800	93	166	1108	173
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:	130	37	295	616	179	304	60	1800	93	166	1108	173
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	1900	1750	1750	1900	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.02	0.17	0.35	0.09	0.17	0.03	0.32	0.05	0.09	0.19	0.10
Crit Moves:				****				****		****		
Green/Cycle:	0.43	0.43	0.43	0.43	0.43	0.43	0.11	0.38	0.38	0.12	0.39	0.39
Volume/Cap:	0.17	0.05	0.39	0.82	0.22	0.41	0.30	0.82	0.14	0.82	0.50	0.26
Uniform Del:	21.8	20.5	24.2	31.1	22.2	24.4	50.1	34.1	24.7	53.2	28.8	25.7
IncremntDel:	0.1	0.0	0.3	7.3	0.1	0.4	0.9	2.7	0.1	23.0	0.2	0.2
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	21.9	20.6	24.6	38.4	22.4	24.7	51.0	36.8	24.8	76.2	29.0	25.9
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:	21.9	20.6	24.6	38.4	22.4	24.7	51.0	36.8	24.8	76.2	29.0	25.9
LOS by Move:	C	C	C	D	C	C	D	D	C	E	C	C
HCM2k95thQ:	6	2	15	35	8	15	5	37	5	14	19	9

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

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

Intersection #6: Brokaw / I880 SB Ramps

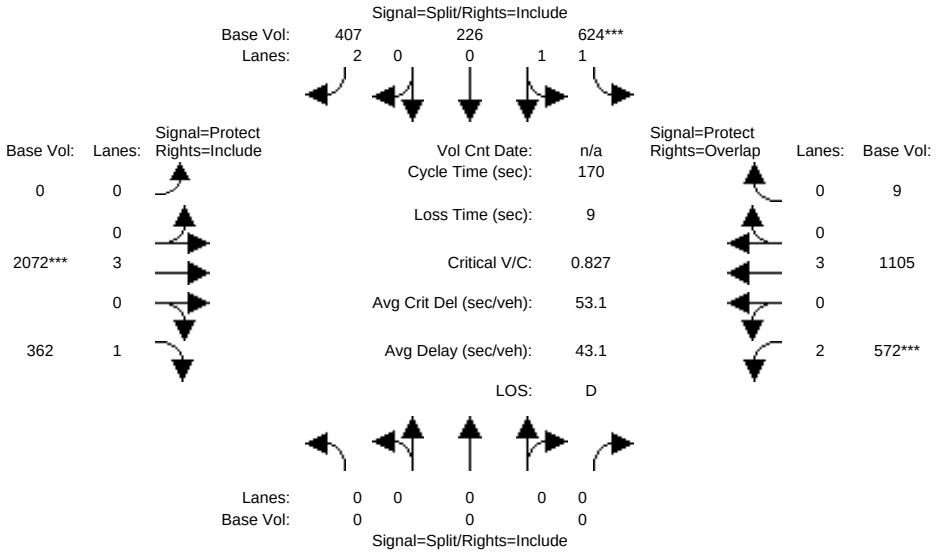


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	10	10	0	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	334	100	738	0	734	122	627	2402	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	334	100	738	0	734	122	627	2402	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:	0	0	0	334	100	738	0	734	122	627	2402	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	334	100	738	0	734	122	627	2402	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	1.00	1.00	1.00
FinalVolume:	0	0	0	334	100	738	0	734	122	627	2402	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.83	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	0.00	0.00	1.57	0.43	2.00	0.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:	0	0	0	2743	821	3150	0	5700	1750	3150	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.12	0.12	0.23	0.00	0.13	0.07	0.20	0.42	0.00
Crit Moves:						****	****				****	
Green/Cycle:	0.00	0.00	0.00	0.34	0.34	0.34	0.00	0.24	0.24	0.37	0.61	0.00
Volume/Cap:	0.00	0.00	0.00	0.36	0.36	0.69	0.00	0.54	0.29	0.54	0.69	0.00
Uniform Del:	0.0	0.0	0.0	45.7	45.7	52.4	0.0	61.0	57.1	45.4	24.0	0.0
IncremntDel:	0.0	0.0	0.0	0.2	0.2	1.9	0.0	0.4	0.4	0.5	0.6	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	0.0	0.0	0.0	45.8	45.8	54.3	0.0	61.4	57.5	45.9	24.6	0.0
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:	0.0	0.0	0.0	45.8	45.8	54.3	0.0	61.4	57.5	45.9	24.6	0.0
LOS by Move:	A	A	A	D	D	D	A	E	E	D	C	A
HCM2k95thQ:	0	0	0	18	18	36	0	21	11	27	47	0

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

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

Intersection #6: Brokaw / I880 SB Ramps

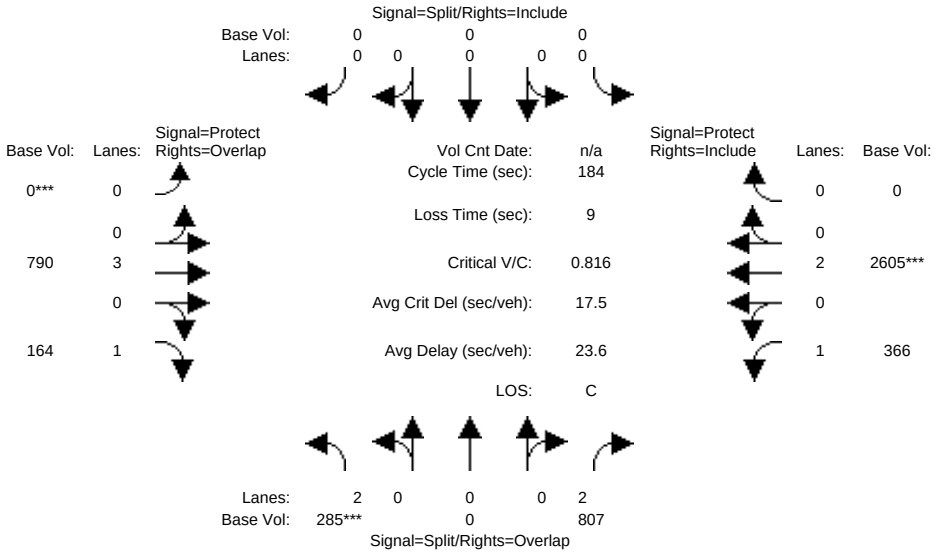


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	10	10	10	0	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	624	226	407	0	2072	362	572	1105	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	624	226	407	0	2072	362	572	1105	9
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:	0	0	0	624	226	407	0	2072	362	572	1105	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	624	226	407	0	2072	362	572	1105	9
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:	0	0	0	624	226	407	0	2072	362	572	1105	9
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.83	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	0.00	0.00	1.50	0.50	2.00	0.00	3.00	1.00	2.00	2.97	0.03
Final Sat.:	0	0	0	2625	951	3150	0	5700	1750	3150	5650	46
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.24	0.24	0.13	0.00	0.36	0.21	0.18	0.20	0.20
Crit Moves:				****				****		****		
Green/Cycle:	0.00	0.00	0.00	0.29	0.29	0.29	0.00	0.44	0.44	0.22	0.66	0.95
Volume/Cap:	0.00	0.00	0.00	0.83	0.83	0.45	0.00	0.83	0.47	0.83	0.30	0.21
Uniform Del:	0.0	0.0	0.0	56.6	56.6	49.5	0.0	41.9	33.6	63.2	12.3	0.3
IncremntDel:	0.0	0.0	0.0	5.6	5.6	0.4	0.0	2.4	0.5	8.1	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	0.0	0.0	0.0	62.2	62.2	49.9	0.0	44.3	34.1	71.4	12.3	0.3
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:	0.0	0.0	0.0	62.2	62.2	49.9	0.0	44.3	34.1	71.4	12.3	0.3
LOS by Move:	A	A	A	E	E	D	A	D	C	E	B	A
HCM2k95thQ:	0	0	0	39	39	19	0	49	24	30	15	3

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

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

Intersection #7: Brokaw / I880 NB Ramps

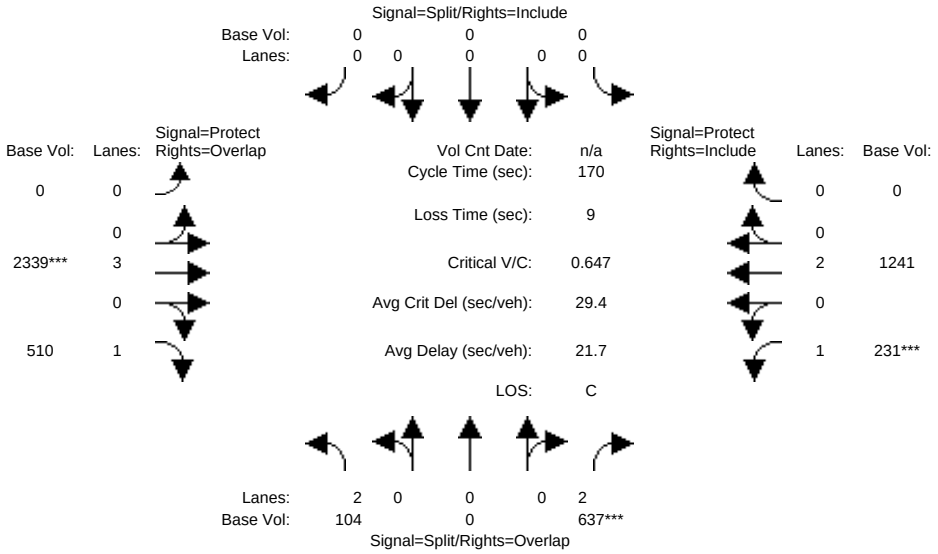


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	0	10	0	0	0	0	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	285	0	807	0	0	0	0	790	164	366	2605	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	285	0	807	0	0	0	0	790	164	366	2605	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:	285	0	807	0	0	0	0	790	164	366	2605	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	285	0	807	0	0	0	0	790	164	366	2605	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	1.00	1.00	1.00
FinalVolume:	285	0	807	0	0	0	0	790	164	366	2605	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	2.00	0.00
Final Sat.:	3150	0	3150	0	0	0	0	5700	1750	1750	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.09	0.00	0.26	0.00	0.00	0.00	0.00	0.14	0.09	0.21	0.69	0.00
Crit Moves:	****						****				****	
Green/Cycle:	0.11	0.00	0.62	0.00	0.00	0.00	0.00	0.33	0.45	0.51	0.84	0.00
Volume/Cap:	0.82	0.00	0.42	0.00	0.00	0.00	0.00	0.41	0.21	0.41	0.82	0.00
Uniform Del:	80.0	0.0	18.2	0.0	0.0	0.0	0.0	47.2	31.2	28.5	7.5	0.0
IncremntDel:	13.8	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.3	1.7	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	93.8	0.0	18.4	0.0	0.0	0.0	0.0	47.4	31.3	28.8	9.2	0.0
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:	93.8	0.0	18.4	0.0	0.0	0.0	0.0	47.4	31.3	28.8	9.2	0.0
LOS by Move:	F	A	B	A	A	A	A	D	C	C	A	A
HCM2k95thQ:	21	0	24	0	0	0	0	20	11	24	60	0

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

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

Intersection #7: Brokaw / I880 NB Ramps

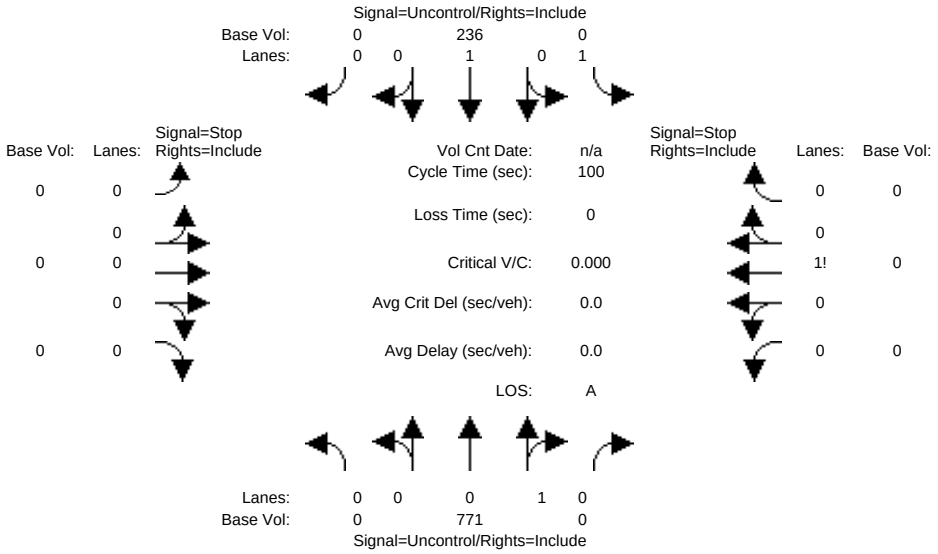


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	0	10	0	0	0	0	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	104	0	637	0	0	0	0	2339	510	231	1241	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	104	0	637	0	0	0	0	2339	510	231	1241	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:	104	0	637	0	0	0	0	2339	510	231	1241	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	104	0	637	0	0	0	0	2339	510	231	1241	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	1.00	1.00	1.00
FinalVolume:	104	0	637	0	0	0	0	2339	510	231	1241	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	2.00	0.00
Final Sat.:	3150	0	3150	0	0	0	0	5700	1750	1750	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.20	0.00	0.00	0.00	0.00	0.41	0.29	0.13	0.33	0.00
Crit Moves:			****					****		****		
Green/Cycle:	0.11	0.00	0.31	0.00	0.00	0.00	0.00	0.63	0.74	0.20	0.84	0.00
Volume/Cap:	0.30	0.00	0.65	0.00	0.00	0.00	0.00	0.65	0.39	0.65	0.39	0.00
Uniform Del:	69.9	0.0	50.3	0.0	0.0	0.0	0.0	19.3	7.9	62.0	3.3	0.0
IncremntDel:	0.5	0.0	1.5	0.0	0.0	0.0	0.0	0.4	0.2	4.1	0.1	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	70.4	0.0	51.8	0.0	0.0	0.0	0.0	19.7	8.1	66.1	3.4	0.0
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:	70.4	0.0	51.8	0.0	0.0	0.0	0.0	19.7	8.1	66.1	3.4	0.0
LOS by Move:	E	A	D	A	A	A	A	B	A	E	A	A
HCM2k95thQ:	6	0	30	0	0	0	0	39	18	23	14	0

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

Level Of Service Computation Report
2000 HCM Unsignalized (Base Volume Alternative)
BG_AM

Intersection #8: Junction / Project Dwy



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	771	0	0	236	0	0	0	0	0	0	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:	0	771	0	0	236	0	0	0	0	0	0	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:	0	771	0	0	236	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	771	0	0	236	0	0	0	0	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1007	1007	771
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	269	243	403
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	269	243	403
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	0.00	0.00
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

Peak Hour Delay Signal Warrant Report

Intersection #8 Junction / Project Dwy

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 1	0	0	1 0 1	0	0	0 0 0	0	0	0 0 1!	0	0
Initial Vol:	0 771	0		0 236	0		0 0	0		0 0	0	
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Junction / Project Dwy

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 1	0	0	1 0 1	0	0	0 0 0	0	0	0 0 1!	0	0
Initial Vol:	0 771	0		0 236	0		0 0	0		0 0	0	

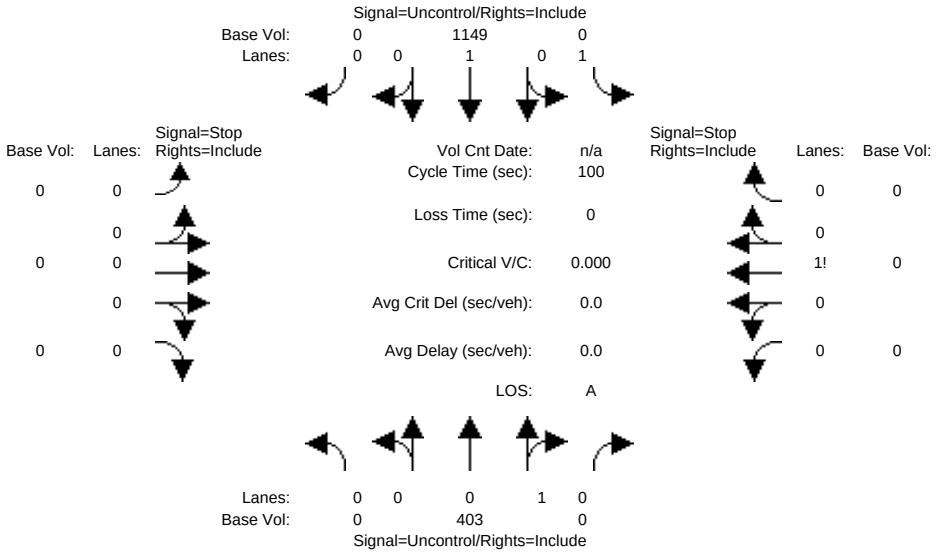
Major Street Volume: 1007
Minor Approach Volume: 0
Minor Approach Volume Threshold: 282

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Base Volume Alternative)
BG_PM

Intersection #8: Junction / Project Dwy



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	403	0	0	1149	0	0	0	0	0	0	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:	0	403	0	0	1149	0	0	0	0	0	0	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:	0	403	0	0	1149	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	403	0	0	1149	0	0	0	0	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1552	1552	403
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	126	115	652
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	126	115	652
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	0.00	0.00
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #8 Junction / Project Dwy

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

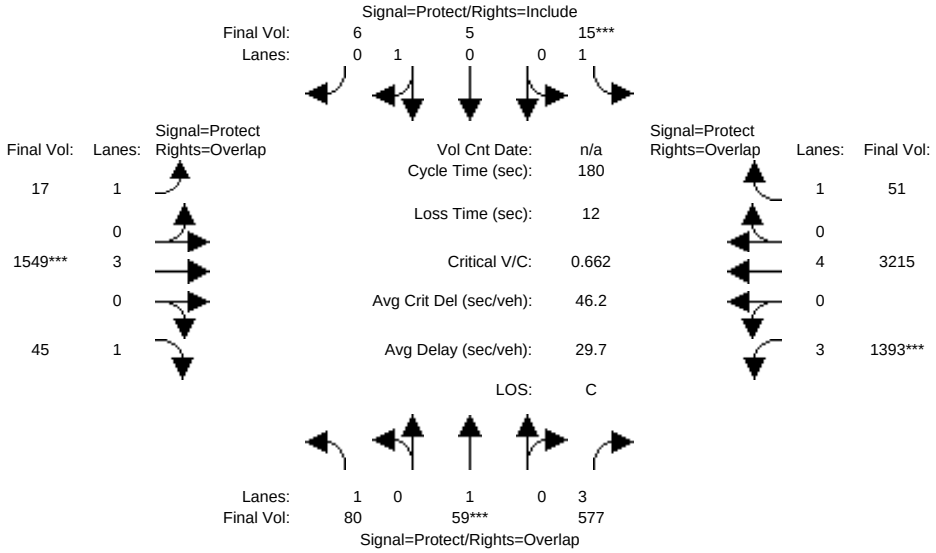
```
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1  0  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    0  403     0     0 1149     0     0    0     0     0    0     0
ApproachDel:    xxxxxx           xxxxxx           xxxxxx           xxxxxx
------------|---------------||---------------||---------------||---------------|
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
               Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #8 Junction / Project Dwy
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  1  0  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    0  403     0     0 1149     0     0    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:              1552
Minor Approach Volume:            0
Minor Approach Volume Threshold: 133
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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

Intersection #1: Montague / Trimble

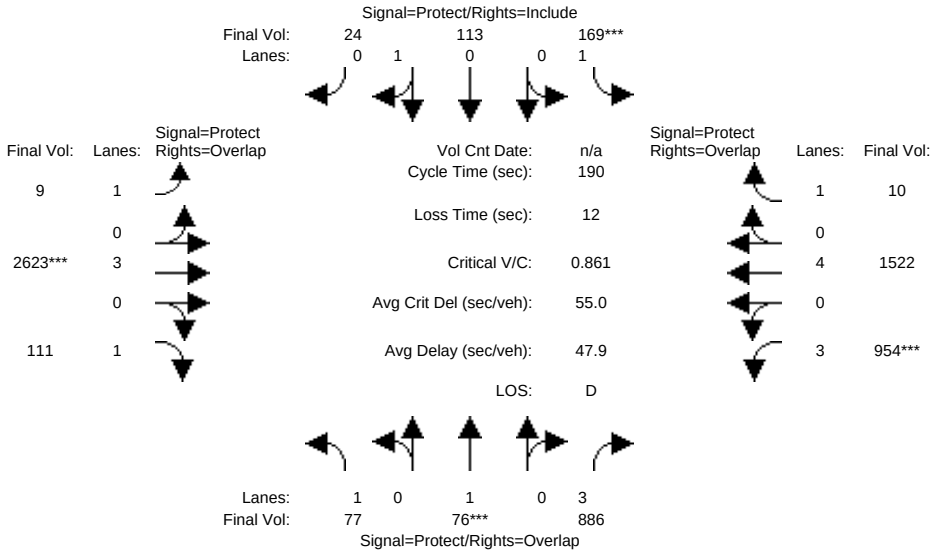


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	10	10	7	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	80	59	577	15	5	6	17	1549	45	1393	3215	51
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	80	59	577	15	5	6	17	1549	45	1393	3215	51
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:	80	59	577	15	5	6	17	1549	45	1393	3215	51
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	59	577	15	5	6	17	1549	45	1393	3215	51
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:	80	59	577	15	5	6	17	1549	45	1393	3215	51
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.80	0.92	1.00	0.92	0.92	1.00	0.92	0.80	1.00	0.92
Lanes:	1.00	1.00	3.00	1.00	0.43	0.57	1.00	3.00	1.00	3.00	4.00	1.00
Final Sat.:	1750	1900	4551	1750	825	990	1750	5700	1750	4551	7600	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.03	0.13	0.01	0.01	0.01	0.01	0.27	0.03	0.31	0.42	0.03
Crit Moves:		****		****				****		****		
Green/Cycle:	0.05	0.06	0.49	0.06	0.06	0.06	0.10	0.39	0.44	0.44	0.73	0.78
Volume/Cap:	0.91	0.56	0.26	0.15	0.10	0.10	0.10	0.70	0.06	0.70	0.58	0.04
Uniform Del:	85.1	82.9	26.7	81.0	79.8	79.8	74.4	46.5	29.3	41.3	11.6	4.4
IncremntDel:	67.3	6.6	0.1	0.7	0.4	0.4	0.3	1.0	0.0	1.2	0.2	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	152.4	89.4	26.8	81.7	80.2	80.2	74.6	47.5	29.3	42.5	11.8	4.4
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:	152.4	89.4	26.8	81.7	80.2	80.2	74.6	47.5	29.3	42.5	11.8	4.4
LOS by Move:	F	F	C	F	F	F	E	D	C	D	B	A
HCM2k95thQ:	14	8	14	2	1	1	2	40	3	42	35	1

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

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

Intersection #1: Montague / Trimble

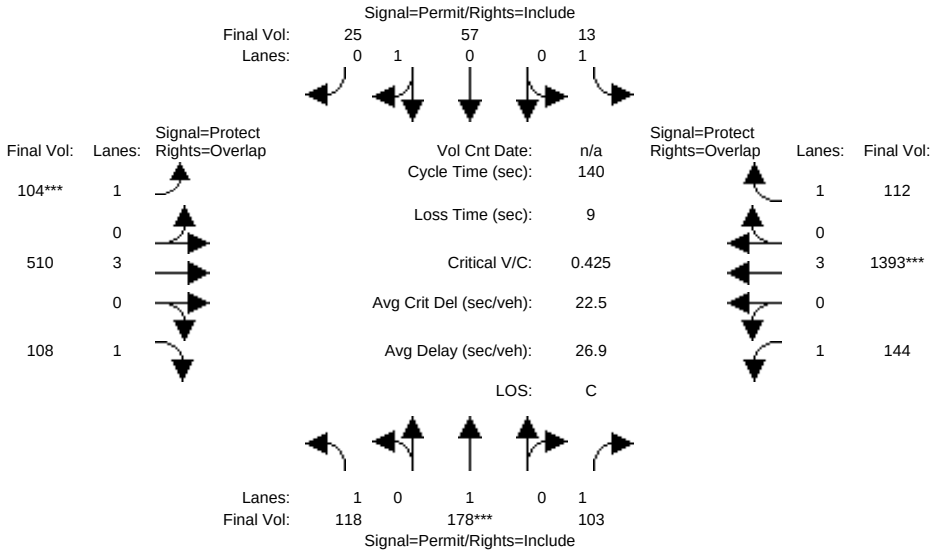


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	10	10	7	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	77	76	886	169	113	24	9	2623	111	954	1522	10
Growth 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:	77	76	886	169	113	24	9	2623	111	954	1522	10
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:	77	76	886	169	113	24	9	2623	111	954	1522	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	76	886	169	113	24	9	2623	111	954	1522	10
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:	77	76	886	169	113	24	9	2623	111	954	1522	10
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.80	0.92	1.00	0.92	0.92	1.00	0.92	0.80	1.00	0.92
Lanes:	1.00	1.00	3.00	1.00	0.81	0.19	1.00	3.00	1.00	3.00	4.00	1.00
Final Sat.:	1750	1900	4551	1750	1544	328	1750	5700	1750	4551	7600	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.19	0.10	0.07	0.07	0.01	0.46	0.06	0.21	0.20	0.01
Crit Moves:		****		****				****		****		
Green/Cycle:	0.06	0.05	0.29	0.11	0.10	0.10	0.16	0.53	0.59	0.24	0.61	0.72
Volume/Cap:	0.71	0.76	0.66	0.87	0.71	0.71	0.03	0.87	0.11	0.87	0.33	0.01
Uniform Del:	87.5	88.8	58.7	83.0	82.6	82.6	67.2	38.7	16.8	69.1	17.9	7.3
IncremntDel:	20.2	28.2	1.2	31.1	12.0	12.0	0.0	2.9	0.0	7.4	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	107.7	117	60.0	114.1	94.6	94.6	67.3	41.6	16.9	76.5	17.9	7.3
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:	107.7	117	60.0	114.1	94.6	94.6	67.3	41.6	16.9	76.5	17.9	7.3
LOS by Move:	F	F	E	F	F	F	E	D	B	E	B	A
HCM2k95thQ:	12	11	32	23	17	17	1	70	6	40	19	0

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

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

Intersection #2: Junction / Trimble

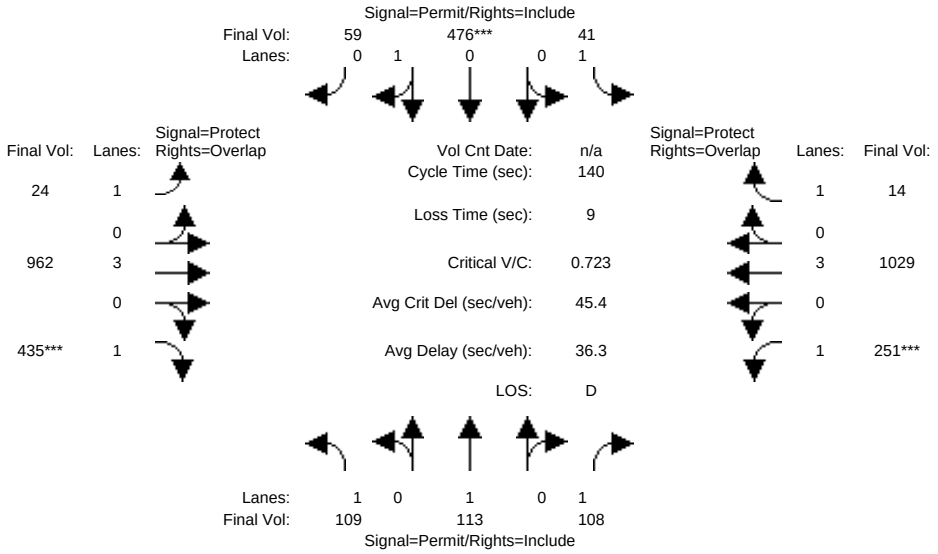


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	118	178	103	13	57	25	104	510	108	144	1393	112
Growth 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:	118	178	103	13	57	25	104	510	108	144	1393	112
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:	118	178	103	13	57	25	104	510	108	144	1393	112
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	118	178	103	13	57	25	104	510	108	144	1393	112
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:	118	178	103	13	57	25	104	510	108	144	1393	112
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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:	1.00	1.00	1.00	1.00	0.68	0.32	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	1900	1750	1750	1287	565	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.09	0.06	0.01	0.04	0.04	0.06	0.09	0.06	0.08	0.24	0.06
Crit Moves:		****					****				****	
Green/Cycle:	0.22	0.22	0.22	0.22	0.22	0.22	0.14	0.37	0.37	0.34	0.58	0.58
Volume/Cap:	0.31	0.42	0.27	0.03	0.20	0.20	0.42	0.24	0.17	0.24	0.42	0.11
Uniform Del:	45.6	46.9	45.2	42.8	44.5	44.5	55.1	30.3	29.4	33.0	16.7	13.5
IncremntDel:	0.5	0.7	0.4	0.0	0.2	0.2	1.2	0.1	0.1	0.2	0.1	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	46.1	47.6	45.6	42.9	44.7	44.7	56.2	30.3	29.5	33.2	16.8	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:	46.1	47.6	45.6	42.9	44.7	44.7	56.2	30.3	29.5	33.2	16.8	13.5
LOS by Move:	D	D	D	D	D	D	E	C	C	C	B	B
HCM2k95thQ:	9	12	7	1	6	6	9	10	6	9	20	5

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

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

Intersection #2: Junction / Trimble

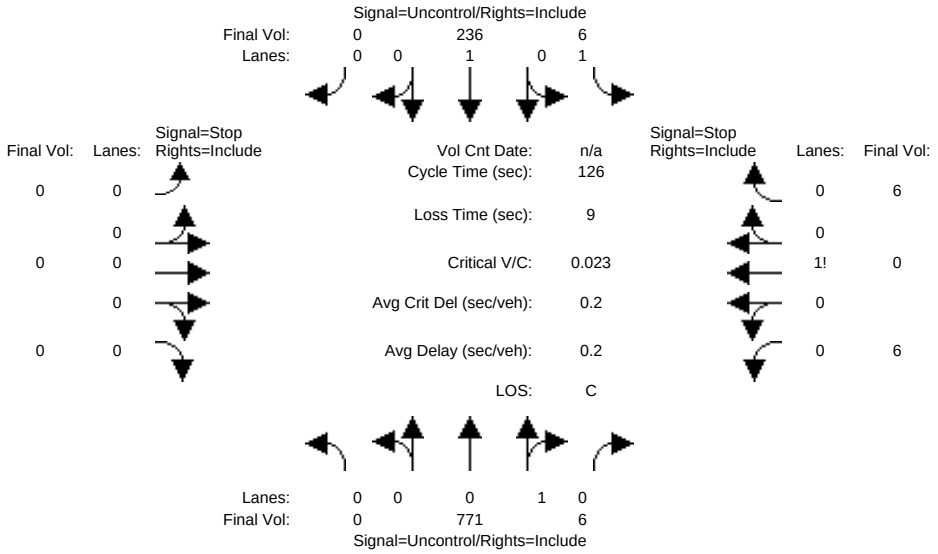


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	109	113	108	41	476	59	24	962	435	251	1029	14
Growth 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:	109	113	108	41	476	59	24	962	435	251	1029	14
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:	109	113	108	41	476	59	24	962	435	251	1029	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	109	113	108	41	476	59	24	962	435	251	1029	14
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:	109	113	108	41	476	59	24	962	435	251	1029	14
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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:	1.00	1.00	1.00	1.00	0.88	0.12	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	1900	1750	1750	1675	208	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.06	0.02	0.28	0.28	0.01	0.17	0.25	0.14	0.18	0.01
Crit Moves:					****				****	****		
Green/Cycle:	0.39	0.39	0.39	0.39	0.39	0.39	0.12	0.34	0.34	0.20	0.42	0.42
Volume/Cap:	0.16	0.15	0.16	0.06	0.72	0.72	0.12	0.49	0.72	0.72	0.43	0.02
Uniform Del:	27.5	27.4	27.5	26.4	36.0	36.0	55.3	36.2	40.1	52.5	28.3	23.3
IncremntDel:	0.1	0.1	0.1	0.0	3.5	3.5	0.3	0.2	4.3	7.3	0.1	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	27.6	27.5	27.6	26.4	39.5	39.5	55.5	36.4	44.4	59.8	28.4	23.4
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:	27.6	27.5	27.6	26.4	39.5	39.5	55.5	36.4	44.4	59.8	28.4	23.4
LOS by Move:	C	C	C	C	D	D	E	D	D	E	C	C
HCM2k95thQ:	6	6	6	2	34	34	2	20	32	22	19	1

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

Level Of Service Computation Report
2000 HCM Unsignalized (Base Volume Alternative)
BGPP_AM

Intersection #3: Junction / Dado



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	771	6	6	236	0	0	0	0	6	0	6
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:	0	771	6	6	236	0	0	0	0	6	0	6
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:	0	771	6	6	236	0	0	0	0	6	0	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	771	6	6	236	0	0	0	0	6	0	6
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	777	xxxx	xxxxx	xxxx	xxxx	xxxxx	1022	1022	774
Potent Cap.:	xxxx	xxxx	xxxxx	848	xxxx	xxxxx	xxxx	xxxx	xxxxx	264	238	402
Move Cap.:	xxxx	xxxx	xxxxx	848	xxxx	xxxxx	xxxx	xxxx	xxxxx	262	236	402
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.02	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	9.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	317	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	16.8	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	C	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			16.8		
ApproachLOS:	*			*			*			C		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #3 Junction / Dado

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

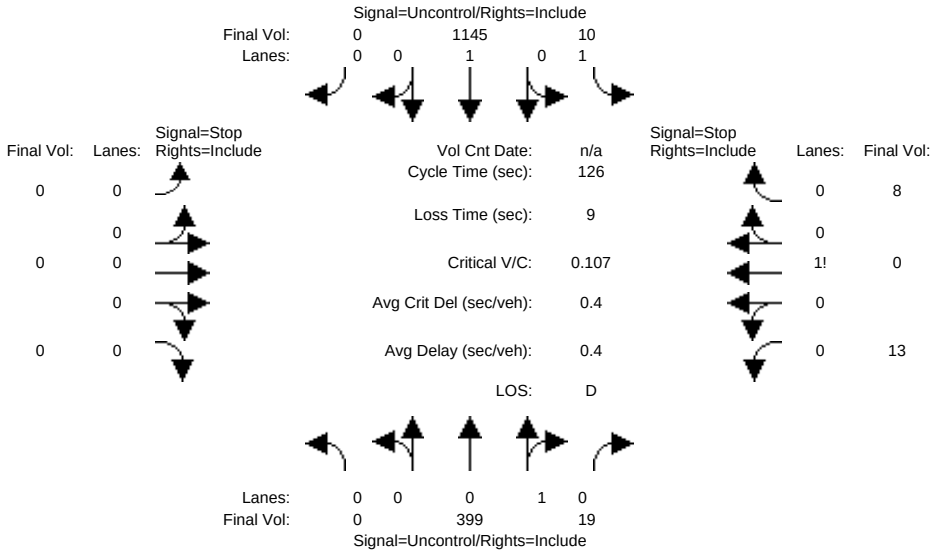
```
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    0  771     6     6  236     0     0    0     0     6    0     6
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             16.8
------------|---------------||---------------||---------------||---------------|
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=12]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1031]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #3 Junction / Dado
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    0  771     6     6  236     0     0    0     0     6    0     6
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1019
Minor Approach Volume:           12
Minor Approach Volume Threshold: 278
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

Level Of Service Computation Report
2000 HCM Unsignalized (Base Volume Alternative)
BGPP_PM

Intersection #3: Junction / Dado



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	399	19	10	1145	0	0	0	0	13	0	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:	0	399	19	10	1145	0	0	0	0	13	0	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	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:	0	399	19	10	1145	0	0	0	0	13	0	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	399	19	10	1145	0	0	0	0	13	0	8
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	418	xxxx	xxxxx	xxxx	xxxx	xxxxx	1574	1574	409
Potent Cap.:	xxxx	xxxx	xxxxx	1152	xxxx	xxxxx	xxxx	xxxx	xxxxx	122	111	647
Move Cap.:	xxxx	xxxx	xxxxx	1152	xxxx	xxxxx	xxxx	xxxx	xxxxx	122	110	647
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.11	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	176	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	28.2	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	D	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			28.2		
ApproachLOS:	*			*			*			D		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #3 Junction / Dado

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

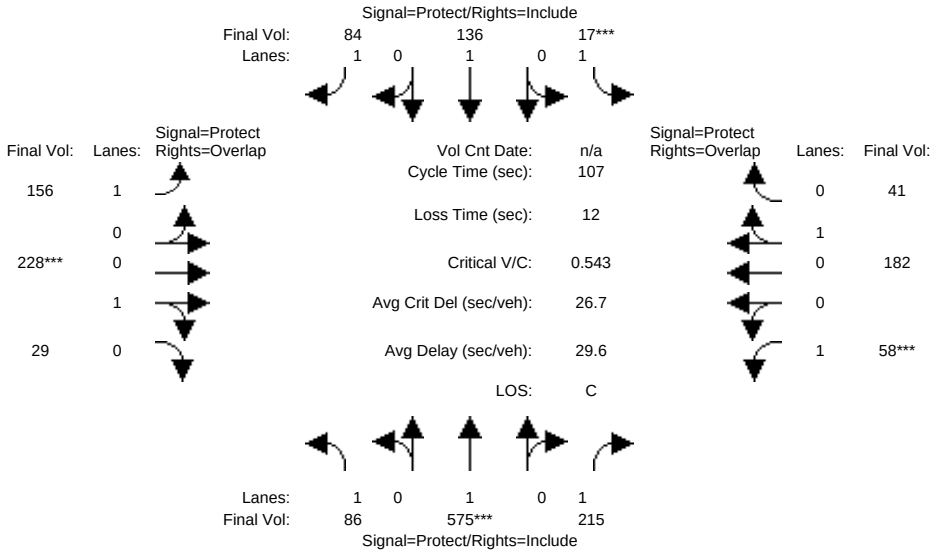
```
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    0  399    19    10 1145     0     0    0     0    13    0     8
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             28.2
------------|---------------||---------------||---------------||---------------|
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=21]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1594]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
                Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #3 Junction / Dado
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    0  0  1! 0  0
Initial Vol:    0  399    19    10 1145     0     0    0     0    13    0     8
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1573
Minor Approach Volume:           21
Minor Approach Volume Threshold: 129
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```

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

Intersection #4: Junction / Charcot

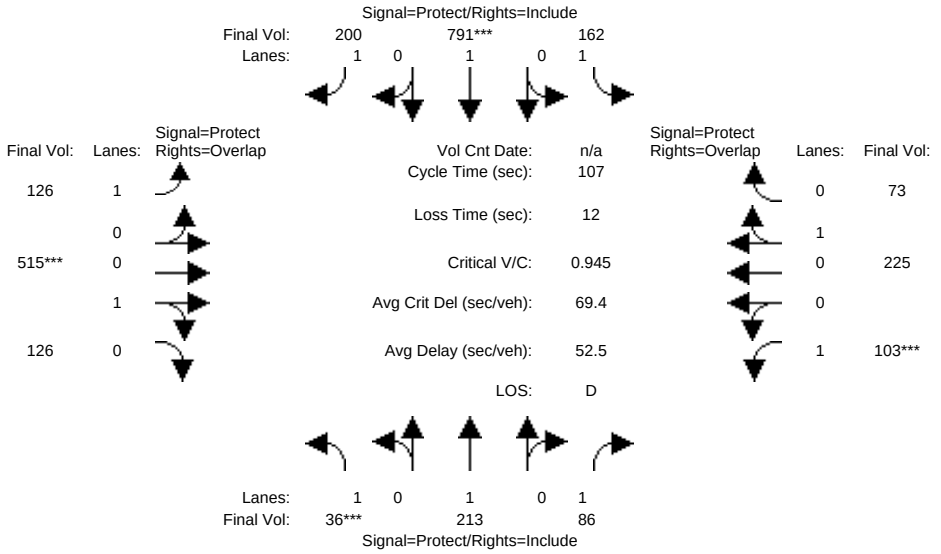


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	86	575	215	17	136	84	156	228	29	58	182	41
Growth Adj:	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:	86	575	215	17	136	84	156	228	29	58	182	41
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:	86	575	215	17	136	84	156	228	29	58	182	41
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	86	575	215	17	136	84	156	228	29	58	182	41
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:	86	575	215	17	136	84	156	228	29	58	182	41
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.12	1.00	0.80	0.20
Final Sat.:	1750	1900	1750	1750	1900	1750	1750	1669	212	1750	1527	344
Capacity Analysis Module:												
Vol/Sat:	0.05	0.30	0.12	0.01	0.07	0.05	0.09	0.14	0.14	0.03	0.12	0.12
Crit Moves:		****		****				****		****		
Green/Cycle:	0.24	0.52	0.52	0.07	0.35	0.35	0.13	0.24	0.48	0.07	0.17	0.24
Volume/Cap:	0.20	0.58	0.24	0.15	0.21	0.14	0.69	0.58	0.29	0.51	0.69	0.50
Uniform Del:	32.4	17.6	14.0	47.2	24.7	24.1	44.6	36.2	16.9	48.3	41.6	35.3
IncremntDel:	0.2	0.9	0.1	0.6	0.2	0.1	8.9	1.9	0.2	3.7	6.4	0.9
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	32.6	18.4	14.1	47.8	24.9	24.2	53.5	38.2	17.1	52.0	48.0	36.2
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:	32.6	18.4	14.1	47.8	24.9	24.2	53.5	38.2	17.1	52.0	48.0	36.2
LOS by Move:	C	B	B	D	C	C	D	D	B	D	D	D
HCM2k95thQ:	5	23	8	1	6	4	13	15	10	5	16	13

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

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

Intersection #4: Junction / Charcot

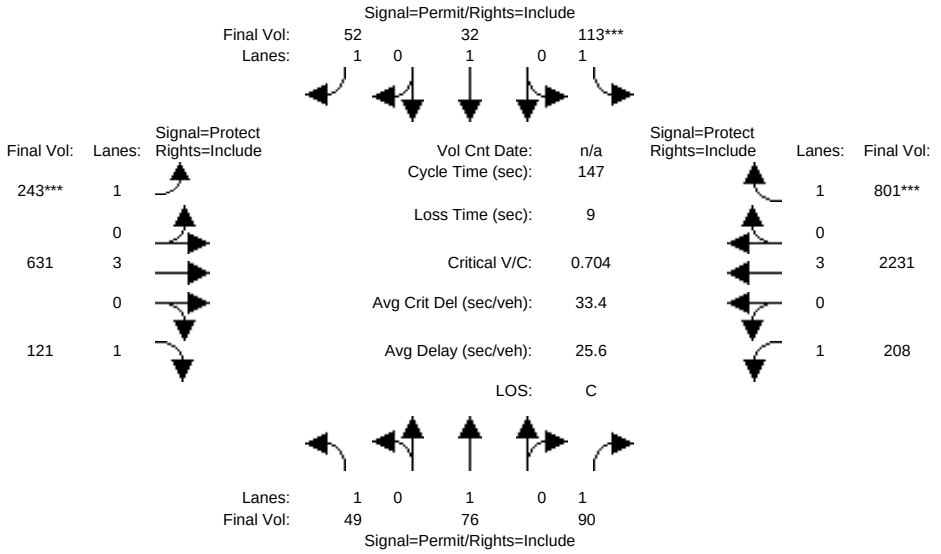


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	36	213	86	162	791	200	126	515	126	103	225	73
Growth Adj:	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:	36	213	86	162	791	200	126	515	126	103	225	73
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:	36	213	86	162	791	200	126	515	126	103	225	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	213	86	162	791	200	126	515	126	103	225	73
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:	36	213	86	162	791	200	126	515	126	103	225	73
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.79	0.21	1.00	0.74	0.26
Final Sat.:	1750	1900	1750	1750	1900	1750	1750	1501	367	1750	1405	456
Capacity Analysis Module:												
Vol/Sat:	0.02	0.11	0.05	0.09	0.42	0.11	0.07	0.34	0.34	0.06	0.16	0.16
Crit Moves:	****				****			****		****		
Green/Cycle:	0.07	0.26	0.26	0.22	0.42	0.42	0.13	0.34	0.41	0.07	0.28	0.50
Volume/Cap:	0.31	0.43	0.19	0.43	1.00	0.28	0.57	1.00	0.84	0.90	0.57	0.32
Uniform Del:	47.7	32.7	30.5	36.1	31.3	20.7	44.0	35.2	28.6	49.7	32.9	16.0
IncremntDel:	1.6	0.6	0.2	0.8	32.8	0.2	3.5	36.4	8.4	53.9	1.5	0.2
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	49.3	33.3	30.7	36.9	64.1	20.9	47.5	71.6	37.0	103.6	34.4	16.2
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:	49.3	33.3	30.7	36.9	64.1	20.9	47.5	71.6	37.0	103.6	34.4	16.2
LOS by Move:	D	C	C	D	E	C	D	E	D	F	C	B
HCM2k95thQ:	2	11	5	9	48	9	10	46	36	12	17	11

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

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

Intersection #5: Junction / Brokaw

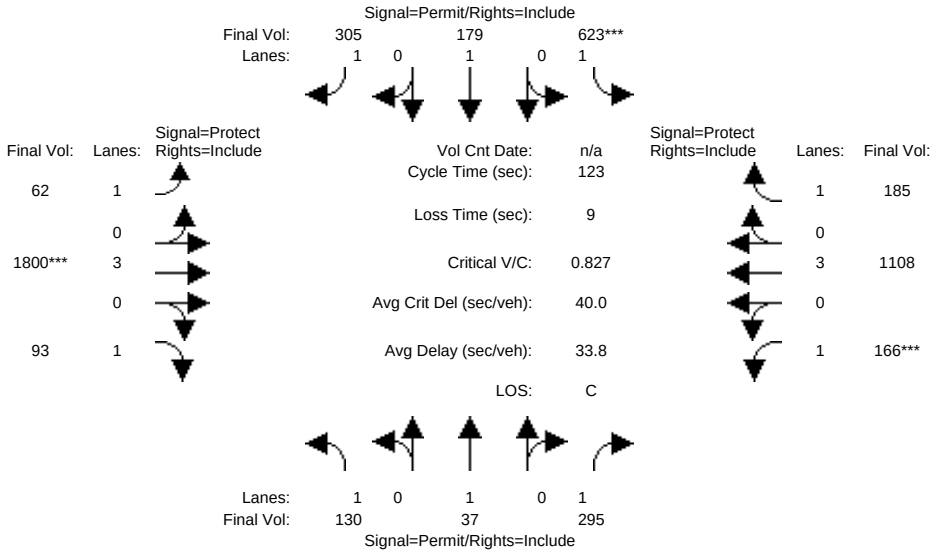


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	49	76	90	113	32	52	243	631	121	208	2231	801
Growth 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:	49	76	90	113	32	52	243	631	121	208	2231	801
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:	49	76	90	113	32	52	243	631	121	208	2231	801
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	76	90	113	32	52	243	631	121	208	2231	801
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:	49	76	90	113	32	52	243	631	121	208	2231	801
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	1900	1750	1750	1900	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.04	0.05	0.06	0.02	0.03	0.14	0.11	0.07	0.12	0.39	0.46
Crit Moves:				****			****					****
Green/Cycle:	0.09	0.09	0.09	0.09	0.09	0.09	0.20	0.41	0.41	0.44	0.65	0.65
Volume/Cap:	0.31	0.44	0.56	0.70	0.18	0.32	0.70	0.27	0.17	0.27	0.60	0.70
Uniform Del:	62.4	63.2	63.9	64.8	61.7	62.5	55.0	28.9	27.6	26.3	14.8	16.6
IncremntDel:	1.1	1.7	4.4	13.3	0.5	1.2	6.5	0.1	0.1	0.2	0.3	2.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	63.5	64.9	68.4	78.1	62.2	63.7	61.5	29.0	27.7	26.5	15.1	18.6
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:	63.5	64.9	68.4	78.1	62.2	63.7	61.5	29.0	27.7	26.5	15.1	18.6
LOS by Move:	E	E	E	E	E	E	E	C	C	C	B	B
HCM2k95thQ:	5	7	10	11	3	5	22	12	7	12	32	41

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

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

Intersection #5: Junction / Brokaw

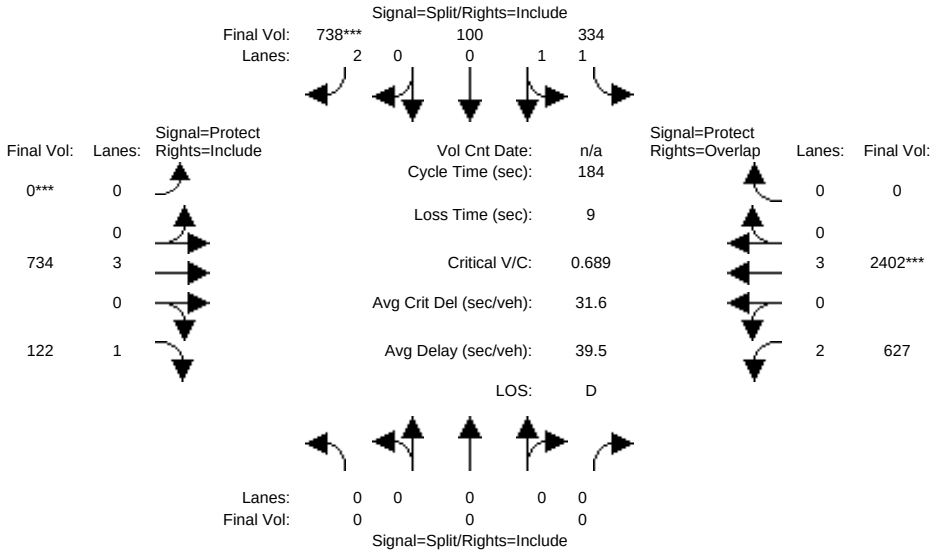


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	130	37	295	623	179	305	62	1800	93	166	1108	185
Growth 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:	130	37	295	623	179	305	62	1800	93	166	1108	185
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:	130	37	295	623	179	305	62	1800	93	166	1108	185
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	130	37	295	623	179	305	62	1800	93	166	1108	185
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:	130	37	295	623	179	305	62	1800	93	166	1108	185
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	1900	1750	1750	1900	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.02	0.17	0.36	0.09	0.17	0.04	0.32	0.05	0.09	0.19	0.11
Crit Moves:				****				****		****		
Green/Cycle:	0.43	0.43	0.43	0.43	0.43	0.43	0.11	0.38	0.38	0.11	0.38	0.38
Volume/Cap:	0.17	0.05	0.39	0.83	0.22	0.40	0.32	0.83	0.14	0.83	0.51	0.28
Uniform Del:	21.6	20.4	24.0	31.0	22.0	24.2	50.2	34.4	24.8	53.3	29.0	26.1
IncremntDel:	0.1	0.0	0.3	7.5	0.1	0.4	0.9	2.8	0.1	23.8	0.2	0.2
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	21.7	20.4	24.3	38.5	22.2	24.5	51.2	37.1	24.9	77.0	29.2	26.3
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:	21.7	20.4	24.3	38.5	22.2	24.5	51.2	37.1	24.9	77.0	29.2	26.3
LOS by Move:	C	C	C	D	C	C	D	D	C	E	C	C
HCM2k95thQ:	6	2	15	35	8	15	5	37	5	14	19	10

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

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

Intersection #6: Brokaw / I880 SB Ramps

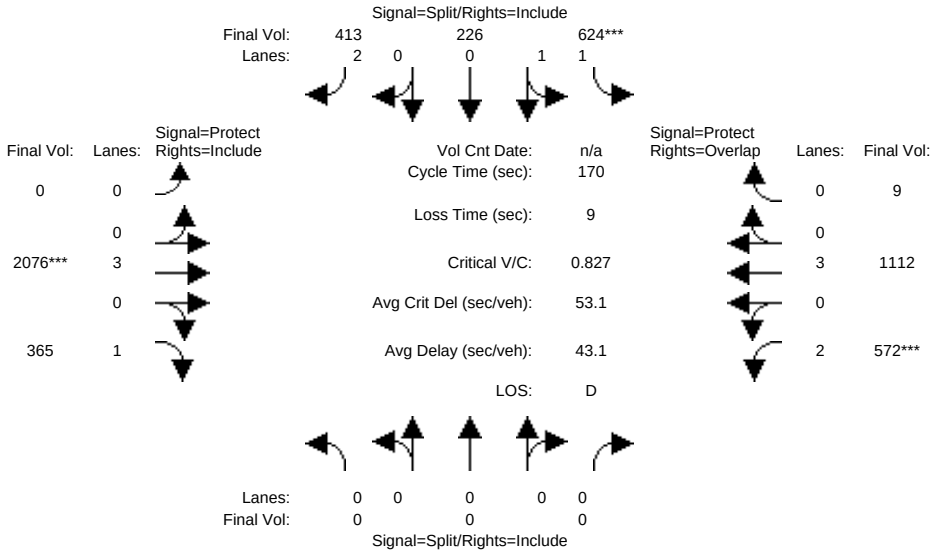


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	10	10	10	0	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	334	100	738	0	734	122	627	2402	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	334	100	738	0	734	122	627	2402	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:	0	0	0	334	100	738	0	734	122	627	2402	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	334	100	738	0	734	122	627	2402	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	1.00	1.00	1.00
FinalVolume:	0	0	0	334	100	738	0	734	122	627	2402	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.83	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	0.00	0.00	1.57	0.43	2.00	0.00	3.00	1.00	2.00	3.00	0.00
Final Sat.:	0	0	0	2743	821	3150	0	5700	1750	3150	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.12	0.12	0.23	0.00	0.13	0.07	0.20	0.42	0.00
Crit Moves:						****	****				****	
Green/Cycle:	0.00	0.00	0.00	0.34	0.34	0.34	0.00	0.24	0.24	0.37	0.61	0.00
Volume/Cap:	0.00	0.00	0.00	0.36	0.36	0.69	0.00	0.54	0.29	0.54	0.69	0.00
Uniform Del:	0.0	0.0	0.0	45.7	45.7	52.4	0.0	61.0	57.1	45.4	24.0	0.0
IncremntDel:	0.0	0.0	0.0	0.2	0.2	1.9	0.0	0.4	0.4	0.5	0.6	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	0.0	0.0	0.0	45.8	45.8	54.3	0.0	61.4	57.5	45.9	24.6	0.0
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:	0.0	0.0	0.0	45.8	45.8	54.3	0.0	61.4	57.5	45.9	24.6	0.0
LOS by Move:	A	A	A	D	D	D	A	E	E	D	C	A
HCM2k95thQ:	0	0	0	18	18	36	0	21	11	27	47	0

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

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

Intersection #6: Brokaw / I880 SB Ramps

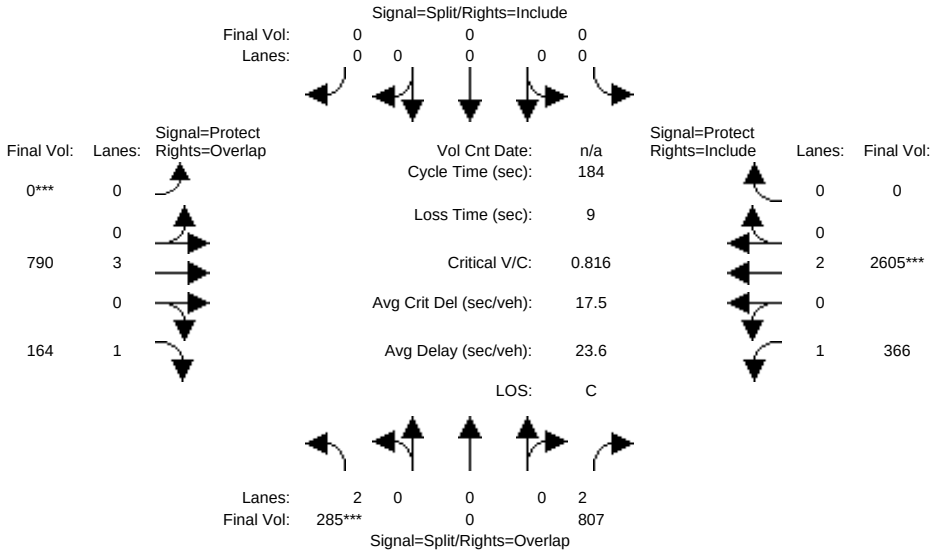


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	10	10	0	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	624	226	413	0	2076	365	572	1112	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	624	226	413	0	2076	365	572	1112	9
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:	0	0	0	624	226	413	0	2076	365	572	1112	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	624	226	413	0	2076	365	572	1112	9
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:	0	0	0	624	226	413	0	2076	365	572	1112	9
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.83	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	0.00	0.00	1.50	0.50	2.00	0.00	3.00	1.00	2.00	2.97	0.03
Final Sat.:	0	0	0	2625	951	3150	0	5700	1750	3150	5650	46
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.24	0.24	0.13	0.00	0.36	0.21	0.18	0.20	0.20
Crit Moves:				****				****		****		
Green/Cycle:	0.00	0.00	0.00	0.29	0.29	0.29	0.00	0.44	0.44	0.22	0.66	0.95
Volume/Cap:	0.00	0.00	0.00	0.83	0.83	0.46	0.00	0.83	0.47	0.83	0.30	0.21
Uniform Del:	0.0	0.0	0.0	56.6	56.6	49.7	0.0	41.9	33.7	63.3	12.3	0.3
IncremntDel:	0.0	0.0	0.0	5.7	5.7	0.4	0.0	2.4	0.5	8.2	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	0.0	0.0	0.0	62.3	62.3	50.0	0.0	44.3	34.1	71.4	12.3	0.3
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:	0.0	0.0	0.0	62.3	62.3	50.0	0.0	44.3	34.1	71.4	12.3	0.3
LOS by Move:	A	A	A	E	E	D	A	D	C	E	B	A
HCM2k95thQ:	0	0	0	39	39	19	0	49	24	30	15	3

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

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

Intersection #7: Brokaw / I880 NB Ramps

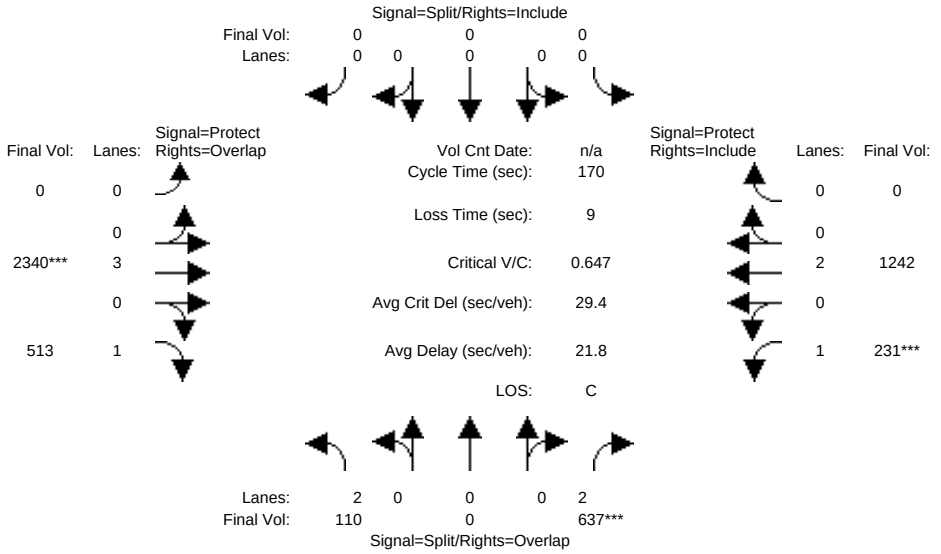


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	0	10	0	0	0	0	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	285	0	807	0	0	0	0	790	164	366	2605	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	285	0	807	0	0	0	0	790	164	366	2605	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:	285	0	807	0	0	0	0	790	164	366	2605	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	285	0	807	0	0	0	0	790	164	366	2605	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	1.00	1.00	1.00
FinalVolume:	285	0	807	0	0	0	0	790	164	366	2605	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	2.00	0.00
Final Sat.:	3150	0	3150	0	0	0	0	5700	1750	1750	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.09	0.00	0.26	0.00	0.00	0.00	0.00	0.14	0.09	0.21	0.69	0.00
Crit Moves:	****						****				****	
Green/Cycle:	0.11	0.00	0.62	0.00	0.00	0.00	0.00	0.33	0.45	0.51	0.84	0.00
Volume/Cap:	0.82	0.00	0.42	0.00	0.00	0.00	0.00	0.41	0.21	0.41	0.82	0.00
Uniform Del:	80.0	0.0	18.2	0.0	0.0	0.0	0.0	47.2	31.2	28.5	7.5	0.0
IncremntDel:	13.8	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.3	1.7	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	93.8	0.0	18.4	0.0	0.0	0.0	0.0	47.4	31.3	28.8	9.2	0.0
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:	93.8	0.0	18.4	0.0	0.0	0.0	0.0	47.4	31.3	28.8	9.2	0.0
LOS by Move:	F	A	B	A	A	A	A	D	C	C	A	A
HCM2k95thQ:	21	0	24	0	0	0	0	20	11	24	60	0

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

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

Intersection #7: Brokaw / I880 NB Ramps

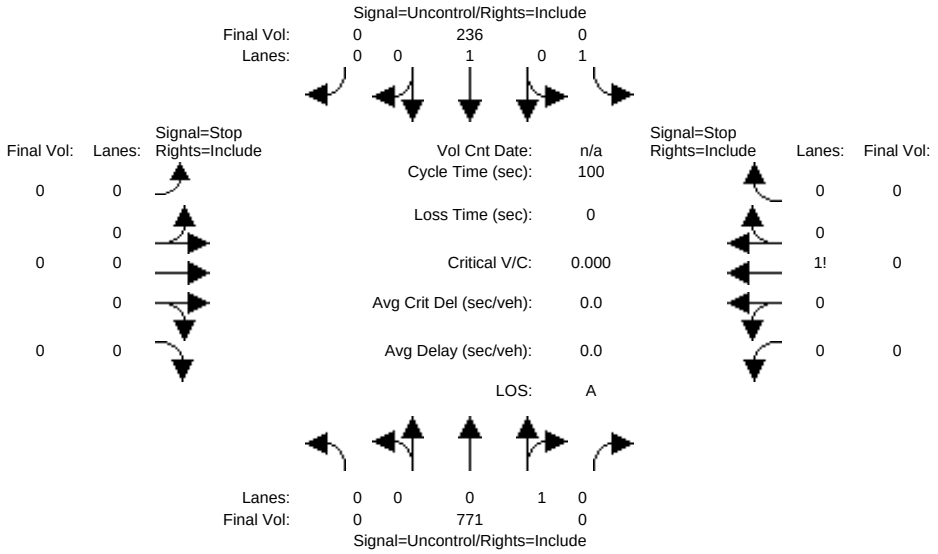


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	0	10	0	0	0	0	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	110	0	637	0	0	0	0	2340	513	231	1242	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	110	0	637	0	0	0	0	2340	513	231	1242	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:	110	0	637	0	0	0	0	2340	513	231	1242	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	110	0	637	0	0	0	0	2340	513	231	1242	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	1.00	1.00	1.00
FinalVolume:	110	0	637	0	0	0	0	2340	513	231	1242	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	3.00	1.00	1.00	2.00	0.00
Final Sat.:	3150	0	3150	0	0	0	0	5700	1750	1750	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.20	0.00	0.00	0.00	0.00	0.41	0.29	0.13	0.33	0.00
Crit Moves:			****					****		****		
Green/Cycle:	0.11	0.00	0.31	0.00	0.00	0.00	0.00	0.63	0.74	0.20	0.84	0.00
Volume/Cap:	0.32	0.00	0.65	0.00	0.00	0.00	0.00	0.65	0.39	0.65	0.39	0.00
Uniform Del:	70.0	0.0	50.4	0.0	0.0	0.0	0.0	19.3	7.9	62.0	3.3	0.0
IncremntDel:	0.5	0.0	1.5	0.0	0.0	0.0	0.0	0.4	0.2	4.1	0.1	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	70.5	0.0	51.9	0.0	0.0	0.0	0.0	19.7	8.1	66.1	3.4	0.0
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:	70.5	0.0	51.9	0.0	0.0	0.0	0.0	19.7	8.1	66.1	3.4	0.0
LOS by Move:	E	A	D	A	A	A	A	B	A	E	A	A
HCM2k95thQ:	7	0	30	0	0	0	0	39	18	23	15	0

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

Level Of Service Computation Report
2000 HCM Unsignalized (Base Volume Alternative)
BGPP_AM

Intersection #8: Junction / Project Dwy



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	771	0	0	236	0	0	0	0	0	0	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:	0	771	0	0	236	0	0	0	0	0	0	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:	0	771	0	0	236	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	771	0	0	236	0	0	0	0	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1007	1007	771
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	269	243	403
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	269	243	403
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	0.00	0.00
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #8 Junction / Project Dwy

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 1	0	0	1 0 1	0	0	0 0 0	0	0	0 0 1!	0	0
Initial Vol:	0 771	0		0 236	0		0 0	0		0 0	0	
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Junction / Project Dwy

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 1	0	0	1 0 1	0	0	0 0 0	0	0	0 0 1!	0	0
Initial Vol:	0 771	0		0 236	0		0 0	0		0 0	0	

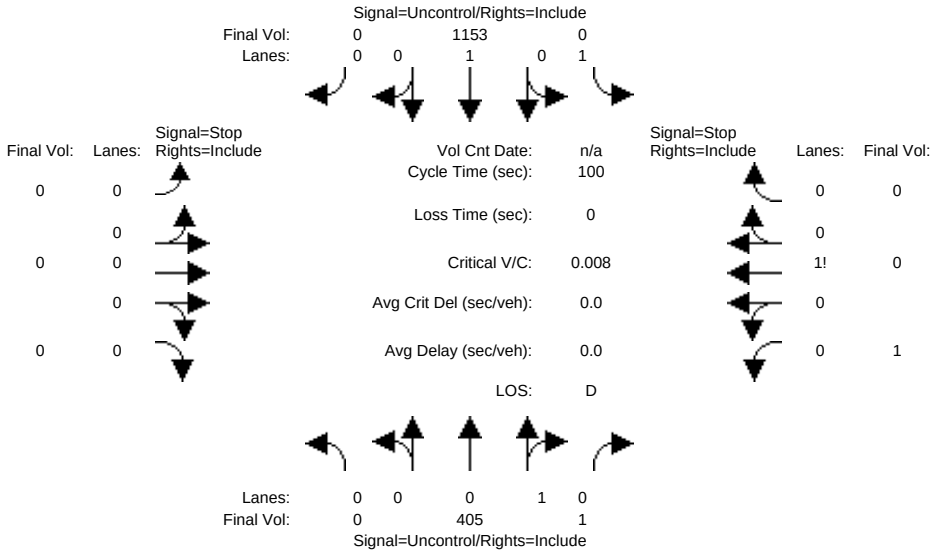
Major Street Volume: 1007
Minor Approach Volume: 0
Minor Approach Volume Threshold: 282

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Base Volume Alternative)
BGPP_PM

Intersection #8: Junction / Project Dwy



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module:												
Base Vol:	0	405	1	0	1153	0	0	0	0	1	0	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:	0	405	1	0	1153	0	0	0	0	1	0	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:	0	405	1	0	1153	0	0	0	0	1	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	405	1	0	1153	0	0	0	0	1	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1559	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	125	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	125	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	34.0	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	D	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			34.0		
ApproachLOS:	*			*			*			D		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #8 Junction / Project Dwy

****

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

```
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    1  0  0  0  0
Initial Vol:    0  405     1     0 1153     0     0    0     0     1    0     0
ApproachDel:    xxxxxx           xxxxxx           xxxxxx             34.0
------------|---------------||---------------||---------------||---------------|
Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
   FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=1]
   FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=1560]
   SUCCEED - Total volume greater than or equal to 650 for intersection
             with less than four approaches.
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
               Peak Hour Volume Signal Warrant Report [Urban]
********************************************************************************
Intersection #8 Junction / Project Dwy
********************************************************************************
Base Volume Alternative: Peak Hour Warrant NOT Met
------------|---------------||---------------||---------------||---------------|
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Lanes:        0  0  0  1  0    1  0  1  0  0    0  0  0  0  0    1  0  0  0  0
Initial Vol:    0  405     1     0 1153     0     0    0     0     1    0     0
------------|---------------||---------------||---------------||---------------|
Major Street Volume:             1559
Minor Approach Volume:           1
Minor Approach Volume Threshold: 132
--------------------------------------------------------------------------------
SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an
"indicator" of the likelihood of an unsignalized intersection warranting
a traffic signal in the future.  Intersections that exceed this warrant
are probably more likely to meet one or more of the other volume based
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
a rigorous and complete traffic signal warrant analysis by the responsible
jurisdiction.  Consideration of the other signal warrants, which is beyond
the scope of this software, may yield different results.
```